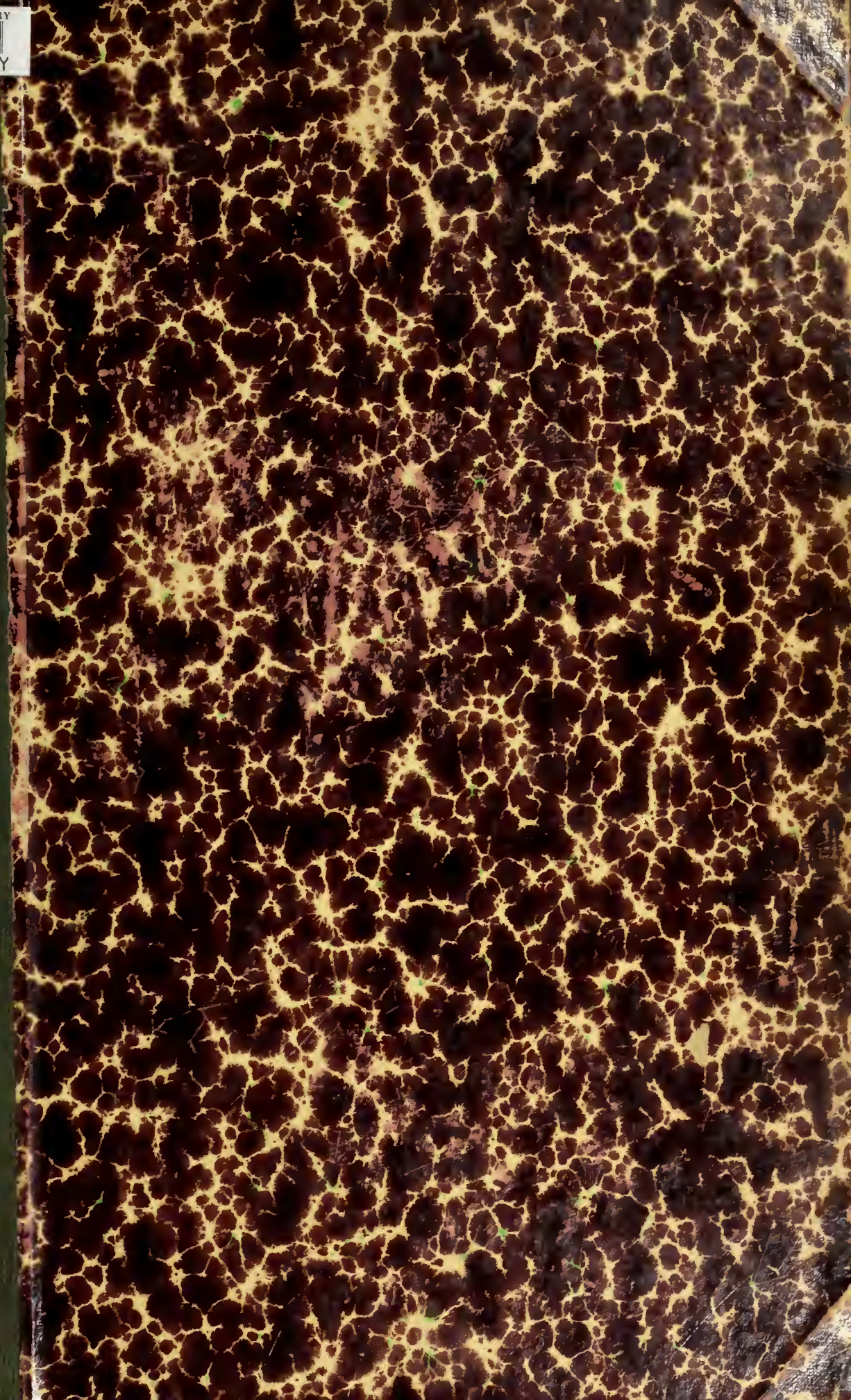


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THE TRANSACTIONS OF THE MEDICAL SOCIETY
OF THE STATE OF PENNSYLVANIA

AT ITS ANNUAL SESSION HELD AT

WILKES-BARRE, PA., OCTOBER, 1934

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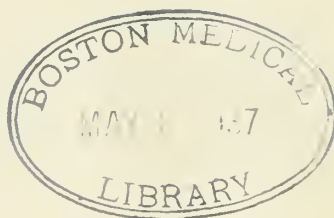
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No. 1

THE PRESIDENTIAL ADDRESS*

MOSES BEHREND, M.D., PHILADELPHIA

I am not unmindful of the responsibilities you have asked me to assume for the ensuing year. To approach them in a mood of levity or vain-glorious satisfaction would indicate an unawareness on my part of the seriousness of the problems that today confront the practice of medicine and the practitioner.

No one is more interested in the quality of medical service than the members of the medical profession. The proud place that American medicine occupies today, acknowledged to be second to none, has been attained by unselfish adherence to the basic principles laid down by our medical forefathers. Rather suddenly we are told that our system is obsolete, and that radical changes are necessary to insure the future well-being of the American public and the medical profession.

By whom are we told? Not by the accepted leaders of the medical profession, nor yet by the mass of the medical profession or the public it serves. These mandates and plans involving subordination of physicians and state medicine in the form of health insurance, sickness insurance, and other forms of socialized medicine, come to us from sociologists and so-called "philanthropic" industrialists, together with a few disgruntled physicians who have been attracted by high sounding phrases and promises largely unsupportable by facts. The science of sociology, having in the few years since Lombroso practically solved the problems of crime prevention and other aspects of criminology, and having recommended reforms as a result of which Capital and Labor lie down like lambs together, now casts about for new worlds to conquer. Its anxious eye falls on the practice of medicine, to

which it has been attracted through the agency of social workers.

STATE MEDICINE

What are the methods by which the sociologists would cure the social ills of the physician and those whom he serves?

State medicine has been suggested. State medicine was conceived in the minds of politicians and has ever since been nurtured by them. It was founded in Germany under Bismarck in 1883 and came to be known as the *Kasse*. In England it appeared as the panel system in 1911 and emanated from a wish to further the political ambitions of David Lloyd George. We have the opinion of Sir Henry Brackenbury that in Great Britain the panel system is not working to the satisfaction of the government. "More is thought of the emolument received than the service to be rendered." Initiative is killed. The stimulus for the acquisition of knowledge is blighted, and in consequence postgraduate study and research are curtailed. Independence is lost and the individual becomes a unit in the vast machine.

PLANS

Many plans have been suggested as a panacea for the alleged ills of medical practice. Here, one meets an advocate of one or another of the European systems; there, an apostle of the Michigan plan or of the Indianapolis plan, or of the Washington, D. C., plan, or of the Detroit plan, and so on, almost endlessly.

The very multiplicity of those plans suggests that no one of them can be utilized to meet the varied requirements of all. The plans have arisen from a laudable desire to "do something," but whether they have accomplished any improvement in conditions as previously existed re-

* Read before the General Meeting of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 2, 1934.

mains highly debatable. However, if the medical styles of 1935 demand a plan for the treatment of every social ill, in the same manner that a specialist was indicated in 1929 for every illness no matter how trivial, by all means it must concur with the now famed ten principles adopted by the House of Delegates of the American Medical Association, at the 1934 meeting held in Cleveland, O., which are as follows:

TEN PRINCIPLES

First: All features of medical service in any method of medical practice should be under the control of the medical profession. No other body or individual is legally or educationally equipped to exercise such control.

Second: No third party must be permitted to come between the patient and his physician in any medical relation. All responsibility for the character of medical service must be borne by the profession.

Third: Patients must have absolute freedom to choose a legally qualified Doctor of Medicine who will serve them from among all those qualified to practice or who are willing to give service.

Fourth: The method of giving the service must retain a permanent, confidential relation between the patient and a "family physician." This relation must be the fundamental and dominating feature of any system.

Fifth: All medical phases of all institutions involved in the medical service should be under professional control, it being understood that hospital service and medical service should be considered separately. These institutions are but expansions of the equipment of the physician. He is the only one whom the laws of all nations recognize as competent to use them in the delivery of service. The medical profession alone can determine the adequacy and character of such institutions. Their value depends on their operation according to medical standards.

Sixth: However the cost of medical service may be distributed, the immediate cost should be borne by the patient, if able to pay, at the time the service is rendered.

Seventh: Medical service must have no connection with any cash benefits.

Eighth: Any form of medical service should include within its scope all qualified physicians of the locality covered by its operation who wish to give service under the conditions established.

Ninth: Systems for the relief of low income classes should be limited strictly to those below the "comfort level" standard of incomes.

Tenth: There should be no restrictions by nonmedical groups on treatment or prescribing unless formulated and enforced by the organized medical profession.

STATE MEDICINE, POLITICS, AND FOUNDATIONS

It has been impossible thus far to separate state medicine from politics. This is to be expected when one realizes the potentiality of state medicine as a vote-getter. We have been told that state medicine can be divorced from politics; this is interesting, for until now such union has been inevitable.

If medicine is ready for socialization today, then by inference, so should be industry, finance, and the fine arts. Let the philanthropic industrialists put their own house in order. The practice of medicine should not be dictated to by the doctor of philosophy employed by the Rosenwald, Milbank, and other Foundations. The doctor of medicine is incapable of advising the doctor of philosophy how to run the Foundation he represents; no more is the doctor of philosophy capable of instructing the physician what to do, and how to do it.

State medicine promises to assure every physician an income of \$1500 to \$2000 a year for the privilege of practicing machine-made medicine. This may or may not be true. Many misstatements have been made by the Foundations. The secretary of the Milbank Fund states that 62 per cent of the population goes without treatment. I challenge that exaggeration. I have yet to meet the physician who would refuse to see a patient because he was unable to pay for advice or treatment. The altruism of the physician is traditional. The Foundations have already done untold harm. Patients who are able to pay are obsessed with the idea that they need not pay. "The high costs of medical care" has become a catchword broadcast by press and radio. The public has been led to believe that it has been exploited by the medical profession these many years, while in fact, it is the most notoriously underpaid in the world.

HEALTH INSURANCE

Health insurance and hospital insurance have also been advocated by those favoring the socialization of medicine. The question of paramount importance would be, "Will the physician and the public benefit from these measures?" Such plans have been tried abroad and have proved most unsatisfactory. They have increased morbidity rather than decreased it, and have cluttered the wards and the offices of physicians with neurotics, and persons who feel they ought to have medical care because they have paid for it. They have paid for it indeed. They have paid by increased taxes for an expensive organization politically controlled acting as intermediary between the doctor and patient. Here is no reduction in the cost of medical care but an additional charge. The plan is sponsored by the large industrial employer in the hope that the employee will lose sight of the fact that the premiums are largely paid from his wages, and by money obtained from a government that obtains its funds from taxes to which the employee also contributes.

SOCIAL SERVICE

It is to the social service worker that the various insurance plans offer the greatest fields of usefulness. The original intent of the social service, instituted by the hospitals at great expense had largely failed. Created in order that the underprivileged might receive adequate hospital care, and that hospitals be not imposed upon by those able to pay, they have become overzealous in their efforts to supply clinics with patients, frequently at the expense of the physician; the physician, who, as has been estimated, has donated \$300,000,000 worth of free service to clinics, hospitals, and institutions every year.

EMERGENCY MEDICAL RELIEF

Emergency medical relief has been in successful operation in Pennsylvania, under the able direction of Dr. Harold A. Miller of Pittsburgh, since December, 1933. As the name implies, it is an emergency relief measure, giving medical, dental, and nursing care to the unemployed. It is our hope that it will remain only so long as the emergency demands.

WARD PATIENTS

Nothing in our State law prevents a physician from charging a fee to ward patients. In Philadelphia and a few of the larger cities in this State, hospital boards of directors do not permit the physician to charge ward patients, even though the latter may be paying full or partial ward rates. This is a custom as obsolete as the Blue Laws of 1794. The patient able to pay the hospital should be able to pay the attending physician a small fee and in most cases would be glad to do so. About 80 per cent of the patients in hospital wards firmly believe that the physician is paid for his services to them by the hospital. The indigent, of course, would continue to receive gratuitous care as they always have. Here is a channel into which social service might well extend its efforts.

WORKMEN'S COMPENSATION

Since the enactment of the Workmen's Compensation Law in 1914, I have been interested in its application. Through the weakness of this law the injured party rarely obtains a square deal. The best medical care is denied him, because of the limitations of the law and the narrow attitude of some of the insurance companies. The surgeon of greatest experience avoided treatment of these cases whenever possible. Lately the insurance companies have made an effort to employ the best in the profession. The

self-insurers, with few exceptions, always were and still remain the greatest obstacle in securing enactment of a proper law. With the help of Mr. Joseph B. Grundy, chairman of the Pennsylvania Manufacturers' Association, and Mr. Walter Linn, who represent the self-insurers, they have been able by an obstructive lobby to block all efforts to obtain constructive benefits for the injured employee.

The amendments to the Workmen's Compensation law that are needed are:

1. The elimination of the 30-day limit: While most injuries recover within this time, the more severe cases do not and thus further aid is denied the employee who most needs it.

2. The elimination of the \$100 limit for physicians and hospitals for 30 days of treatment to the injured: As the law now stands, hospitals do not want to keep compensation cases more than 30 days, and the physician is not paid for service after that time.

3. The selective choice of physician: It was formerly my opinion that the injured employee should be absolutely free to choose his physician; but I now consider that limited choice is a more equitable way to solve this problem; the physicians to be grouped as general practitioners and specialists. Such classification easily can be made by the officers of the component county societies.

4. The physician should be party in interest: Under the present law the physician has no redress when not paid for services rendered. He can not bring suit against the employer; the employee must do that for him. The absurdity of the situation is obvious.

Under the Relief Works Division, the Federal Government has made provisions for the workmen injured while employed in government relief projects. Choice of physician is allowed under the supervision of a medical referee appointed by the president of the County Medical Society. The physician is not limited in the amount he may charge and as yet practically no physician has been found guilty of overcharging. This has proved a workable arrangement satisfactory to all parties and the same plan might well be incorporated in the Workmen's Compensation Law.

THE GENERAL PRACTITIONER

It has been my pleasure in the past twenty-five years of active surgical practice to be associated intimately with the general practitioner, and his ability and resourcefulness command my utmost respect. It has been said that the general

practitioner is a relic of the past. This is an absurd statement. The general practitioner has done more than any other group to maintain the low cost of medical care.

The fine relationship existing between the general practitioner and patient can never be replaced by any substitute. The confidence placed in his ability, and his oft-sought advice on personal matters of the family are examples of the high esteem in which he is held: call him "medical adviser," "family doctor," or what you will. The splendid individuality attained by him in his relation to his patient must never be effaced by state medicine, health insurance or any other scheme. Today, by virtue of the journals, state and county society meetings, and postgraduate seminars, he is able to keep abreast of all that is new in medicine.

POSTGRADUATE SEMINARS

The postgraduate seminars launched in a statewide manner by my immediate predecessor in office, Dr. Donald Guthrie, are a remarkable contribution to the furtherance of the practice of good medicine in Pennsylvania. These courses must continue. They will serve as a fitting monument to the man whose foresight has instituted them. Dr. Guthrie has evolved a plan whereby the seminars become accessible to everyone at small cost. The meetings of our county societies are not planned systematically enough to keep its members informed of newer developments in medicine. The Philadelphia County Medical Society seminars have been held weekly since 1926, under the guidance of a corps of teachers able to impart their subjects with authority. The holding of these seminars has become a part of the By-Laws of the Philadelphia County Medical Society, hence are mandatory. It is my hope that the House of Delegates will deem it expedient to approve a similar By-Law to the Constitution of The Medical Society of the State of Pennsylvania.

THE STATE SOCIETY

Perennially the Board of Trustees receives communications urging the reduction of the per capita assessment to the State Society. This it is impossible to do. I need not remind you that the JOURNAL, one of the finest state medical journals printed today, nevertheless is a costly publication. The various committees and commissions now operating, among them those on Public Relations, Medical Economics, Public Health Legislation, Cancer, Child Health, Appendicitis Mortality, Workmen's Compensation;

and those to be added on Physical Therapy and Maternal Welfare, are doing and will continue to do marvelous educational and preventive work, but they must be supported. The very important meetings of the eleven Councilor Districts are subsidized; they give the officers of the State Society an opportunity to present matters of importance before assembled groups in the component district of the State. The all important annual Secretaries' Conference must be maintained. Medicolegal defense of its members is a most important State Society function. Articles on health topics are published in 60 daily and 90 weekly newspapers. In addition, radio talks and the scientific exhibits of the annual meeting are educational projects sponsored by this Society.

LEGISLATION

Next year will be a legislative year and a crucial one. By this is meant that the Legislature of the State of Pennsylvania will meet in January. During the session bills of the most vital interest to the physician of this State, many of them inimical to his future welfare and the entire practice of medicine, are certain to be introduced. You must realize now that you cannot afford to stand aloof in the complacent belief the other man will do it for you. The defections of the Workmen's Compensation Law bear evidence of this fact.

Your State Senator and State Representative have as much regard for your beliefs as for those of any of his constituents; nay more, for you are the most highly educated group in the State and share the leadership in your respective communities. Let him know your views. In times past we have been accused of hiding facts, bills, and amendments. You will be kept informed of impending legislation. Dr. Chauncey L. Palmer and his Committee on Public Health Legislation have established similar committees in every county. Through these subcommittees every physician will obtain information on impending legislation. Our collective strength has never been utilized, but now it must assert itself. To express a multitude of views and interests would lead to untold harm. Each of us may have to sacrifice some personal ideas for the common good as it is embodied in the policy of this Society. I am not afraid to assume my responsibilities; but the entire profession in the State of Pennsylvania must share these obligations.

"Together we can not fail."

THE EMERGENCY ABDOMEN*

Some Observations of Its Incidence in Persons Older than Age Fifty

BENJAMIN LIPSHUTZ, M.D., AND CHARLES S. SCHAFER, M.D.,† PHILADELPHIA

The term emergency abdomen, or preferably acute conditions within the abdomen, through the medium of common usage, is now a well recognized, though indefinite clinical syndrome. In this paper, "acute conditions within the abdomen" has reference to any type of lesion apparently demanding urgent surgical intervention.

In patients beyond the fifth decade of life, the clinical manifestations of an acute abdominal catastrophe are frequently characterized by an extremely mild local and systemic reaction; the older the patient, the more innocuous are the symptoms. The changes which are incident to the later decades of life, induce a marked lowering of the afferent perceptions. The same degenerative phenomena incident to old age which affect the blood vessels, the heart, *etc.*, must obviously produce corresponding changes in the neural mechanisms, and their resultant responses.

The latter is most effectively illustrated by the lowered sensory perceptions in the older diabetic patients. The feet of diabetic patients may be burned and blistered without discomfort. External heat in all forms, save the electric pad, is interdicted. The electric baker, hot water bags, hot and cold baths should not be used. We have seen many toes which require months to heal after having been blistered by hot water bags.

Furthermore, the inflammatory defensive reaction, when it occurs in older individuals, aside from the resistance of the host, and the pathogenicity of the microorganism, usually provokes massive infiltration and marked proliferative changes in the fragile, inelastic tissues.

Concerning the ensuing discussion, relative to some of the individual lesions which may produce an acute abdomen, only those will be considered which have given us the most trouble. It is obvious in the space allotted, that all the conditions cannot be discussed. Such a discussion, recalling our mistakes, might tend to make us more alert in avoiding them. One doubts that it will, for Jacoby has aptly said, "We make the same mistake a hundred times, and call it experience."

Acute abdominal symptoms may have their origin in some thoracic lesion. The diagnosis between acute thoracic disease and acute abdominal disease is always easy as soon as the characteristic symptoms of each are apparent. The

chief difficulty in making the distinction is to recognize that the necessity for the distinction exists, for the thoracic symptoms are always masked by the more conspicuous and distressing abdominal ones.

As a conspicuous example of acute abdominal symptoms dominating the early clinical picture of a beginning pneumonia, the following case may be briefly cited.

Patient, male, age 55, was admitted to Mt. Sinai Hospital, May 30, 1933, with the diagnosis of acute surgical conditions within the abdomen. The patient was in a moderate state of shock, blood pressure 124/80; the abdomen presented generalized boardlike rigidity, and diffuse, exquisite, tenderness. Blood count: 23,000 white blood cells; 95 per cent polynuclears; temperature, 101° F.; pulse, 110; respiration, 20. Physical examination of the chest was negative.

The diagnosis, without careful survey of the patient, would seem to be an acute surgical abdomen. The medical consultant on his first examination suggested immediate surgical intervention.

There was, however, one aspect of the general clinical picture that deterred us from immediate surgery. When the patient was first seen, he was sitting up with his hands clasped across his abdomen. Any attempt to make an examination of the patient in the prone position was impossible, because of the terrible pain produced by recumbency. The relief of pain in the sitting posture and its marked aggravation by the prone position strongly suggested a thoracic lesion as the cause of the abdominal symptoms. The symptoms of true abdominal lesions are rarely intensified by the prone position. An emergency roentgen-ray of the chest and an emergency electrocardiographic examination were immediately done. The latter proved negative. The former showed a small effusion in the left costophrenic angle, and a beginning pneumonia of the left base, with involvement of the left diaphragmatic pleura.

The origin and the distribution of the pain of coronary sclerosis may simulate practically every known surgical condition of the abdomen. The fact that angina pectoris and many of the painful surgical conditions of the abdomen manifest themselves toward middle life adds more confusion to an already perplexing situation (Willis). It is an interesting fact that if angina pectoris of coronary origin occurs in women, it usually does not assume the serious aspects that it does in men. The relative incidence of coronary arterial disease in the male and the female is variously reported. Levine and Brown in a series of 111 cases, found the proportion $3\frac{1}{2}$ to 1; Connor in 287 cases, 15 to 1; and Bellet 6 to 1. Common agreement thus attests that coronary artery disease is far more common in the male than in the female. Obviously the severity

* Read before the Northern Medical Society, Philadelphia.

† From the Surgical Service of the Mt. Sinai Hospital, Philadelphia.

of the symptoms varies with the particular coronary branch involved, the type of individual, and the extent of the cardiac infarction.

Parenthetically it may be noted that perforation of a gastric or duodenal ulcer is similarly an unusual event in women. The importance of the prompt and correct recognition of coronary arterial disease is evident, since surgical intervention for an imaginary abdominal ailment is not only extremely hazardous to the patient, but humiliating to the surgeon. The coexistence of angina pectoris and a surgical condition is not uncommon. If this occurs, the question of operation should be determined in the individual case. As a general rule, the presence of coronary arterial disease should preclude any surgery except that of an emergency character, such as strangulated hernia, acute visceral perforation, acute suppurative disease in the abdomen, and hemorrhage from trauma. Operable malignancy usually permits a period of preoperative care in order to increase the margin of safety for the required surgery. Without entering into a discussion of the clinical syndrome of coronary arterial disease, it is a wise practice for the surgeon to have every doubtful case of acute abdominal pain subjected to a careful cardiologic examination. Concerning the use of the electrocardiogram in presence of acute upper abdominal pain, an adequate examination should rule out the presence or absence of any cardiac infarction. It is advisable to take the direct or semi-direct chest lead in addition to the indirect lead, for the latter will disclose only about 50 per cent of the cases. The combined use of both direct and indirect leads will give a correct diagnosis of cardiac infarction in 98 per cent of the cases (Bellet). Rupture of an aneurysm or rupture of the aorta are not disclosed by the electrocardiogram, but can be diagnosed or ruled out by means of the roentgen-ray.

The diagnosis sometimes has to be made from gallbladder disease. It must be borne in mind that some cases of toxic angina are relieved by removal of the gallbladder or the appendix. An attack of coronary thrombosis in which the liver is congested and tender and the muscles in spasm over it, might easily be confused with disease of the gallbladder. Here the detection of an early gross arrhythmia might save the patient from an unnecessary operation. The presence of substernal pain is an important diagnostic point. At times the most unremitting clinical survey of the patient may leave the diagnosis uncertain; and the surgeon is faced with the dilemma to operate or not to operate. Two such cases can be briefly cited:

CASE I.—Male, age 53. Patient transferred to the hospital by his family physician with the diagnosis of perforated duodenal or gastric ulcer. The examination showed a well nourished male, complaining of violent epigastric pain, radiating to the back. The muscles of the epigastrium and right hypochondrium were board-like in their rigidity. Roentgenograms of the diaphragm immediately taken to ascertain the presence of air under the diaphragm, indicating the certainty of a visceral perforation, were negative. The patient was promptly seen by a medical consultant. Coronary thrombosis was considered as a possible cause; in the view of the latter, surgery was delayed. The patient was seen again in 2 hours. At this time another consultation took place, and it was the consensus of opinion that an exploratory operation was advisable; for it was impossible to rule out a visceral perforation. The abdominal exploration was negative. Following an initial stormy convalescence, the patient made a complete recovery.

CASE II.—Male, age 67. There was a previous history of a number of attacks of angina pectoris, for which paravertebral alcoholic injections of the upper thoracic spinal nerves had been given; each series of injections produced symptomatic relief for several months. On Nov. 18, 1931, he was seized with severe abdominal pain, localized in right lower quadrant; the latter area was exquisitely tender, and exhibited some increased muscle tonus. The leukocyte count was 21,000 with 91 per cent polymorphonuclears. The patient was transferred to the hospital by his physician (who was thoroughly conversant with his previous clinical history) with a diagnosis of acute appendicitis. Consultation again failed to clear the diagnostic confusion. It was decided to explore the right lower quadrant of the abdomen, under local anesthesia. The abdominal exploration was negative for any acute pathology or a mesenteric thrombosis. His convalescence was smooth for the first 7 days at which time he was seized with violent, excruciating pain behind the lower sternum and epigastrium, profound shock, shallow respirations of the Cheyne-Stokes type, and presented the typical clinical picture of a sudden occlusion of the coronary circulation by embolism. He died within one hour of the onset of the seizure.

Considering the nature of coronary arterial disease, the numerous hypotheses which have been advanced as an explanation for this clinical syndrome, and the margin of error that attends all human enterprise, a certain percentage of mistaken diagnoses are unavoidable. They should be kept as low as possible.

Recently a survey was made of 1171 cases of acute appendicitis. Forty cases, or 3.4 per cent, occurred in individuals older than the age 50. There were 9 deaths in this group, giving a mortality of 22.5 per cent. The mortality of the entire series was 2.7 per cent. These figures graphically set forth the fact that almost one-third of all the deaths occurred in the patients past age 50. This age group included only 3.4 per cent of the total number of cases. The patients ranged in age from 52 to 79, and of the 2 patients beyond the age of 70, both recovered.

Similar reports from other clinics give a correspondingly high mortality, the latter ranging from 12 to 50 per cent. Patry and Heer report 31 cases of appendicitis in the aged with 7 deaths, a mortality of 22.5 per cent. Goldsmith reported 14 cases with a mortality of 42 per cent. Florken and Rieman reported 145 cases in patients past age 50, out of a total of 1620 cases with 18 deaths, a mortality of 12.4 per cent. Fitch reported a mortality of 21.6 per cent in his own series and received information from clinics throughout the country upon sending them a questionnaire that the mortality ranged from 12 to 50 per cent. Mertens in a series of 78 cases in patients over age 50 gives a mortality of 26 per cent.

A study of our operative records shows that of the 1171 cases of acute appendicitis, the group of cases in patients beyond age 50, presented the most virulent pathology. Thirty-one of the 35 cases operated upon had an acute suppurative or acute gangrenous appendicitis; in 19, or 54 per cent of the cases, the appendix was found at operation to have perforated. This is an accurate statement of the condition found on admission, for all these patients were operated upon within a few hours after entering the hospital. Despite the fact that 90 per cent of the cases were either acute suppurative or gangrenous appendicitis, only 6 of the 9 deaths could be directly attributed to peritonitis. The remaining 3 deaths were due to mesenteric thrombosis, myocarditis, and diabetes.

Five of the patients were not subjected to surgery. In only one of these was the diagnosis questionable. This patient died 7 days after admission to the hospital, the fatality being attributed to endocarditis. Three consultants examined this woman, and all concurred in the diagnosis of acute appendicitis, but permission to operate was refused. Unfortunately, necropsy was refused. The remaining 4 cases that were not operated upon, were definitely appendicitis. Operation was deferred in these cases for 2 reasons: (1) Infection was subsiding or subacute in character and (2) the presence of advanced degenerative changes in the heart, lungs, and kidneys.

The time interval between the onset of symptoms and the admission to the hospital averaged 4 days; and in 1 case, the symptoms were 14 days in duration. The long interval between the onset of the symptoms and admission to the hospital is due either to failure of the patient to call a physician, or of the physician to make a diagnosis, or to failure of the patient to submit to early surgical treatment after a diagnosis has been made, or finally because of the desire of

the physician to treat the patient conservatively in the hope that the attack might subside.

A study of our records shows that errors in the diagnosis of acute appendicitis in the aged is not uncommon. Many physicians fail to remember that appendicitis in the later decades of life is not infrequent.

Reduction in the mortality of appendicitis still rests on early diagnosis and its corollary early surgical intervention. Given a typical case of appendicitis, the diagnosis is easy. In its absence, as Heuer states, we cannot of course tell how to make a diagnosis, but we may make some observations that might be helpful. The typical clinical picture occurred only in 40 per cent of our cases.

Appendicitis is the most common infective lesion that develops in the abdomen, and warrants careful consideration in the diagnosis of any acute abdominal condition. Of all abdominal emergencies, at least 50 per cent result from acute appendicitis.

The symptoms at the onset of the attack are often mild and innocent. The initial generalized abdominal pain is usually attributed by the patient to some dietary indiscretion and a cathartic is taken. The latter increases the pain, and prompts the patient to seek medical aid. Almost all our patients had taken a cathartic. Early diffuse abdominal pain occurred in about 60 per cent of the cases, but localized pain over the right lower quadrant coupled with some tenderness occurred in more than 90 per cent of the patients. The temperature, pulse, and respiration in this series were usually normal, or showed only a slight increase above the normal levels. In only one instance did the temperature elevation reach 102° F. The blood picture shows a high total leukocytic count and a high polynuclear percentage.

The initial stage of the disease may exhibit the leukocyte count within normal limits. Nausea and vomiting were not common features, although they were present in 18 of the cases, and it is to be emphasized that with a single exception, these patients disclosed at operation an acute suppurative appendix. Some of the cases resembled intestinal obstruction.

It is particularly noteworthy that 25 of the 40 patients gave a history that this was their first attack, and of the 9 who died, only 3 gave a history of one or more previous attacks. It thus appears that individuals in their first attack exhibit the most virulent pathology and are more likely to develop perforation and peritonitis than those in their second, third, and fourth attacks. Comparison with other age groups shows that all first attacks are similarly more prone to per-

toration. Heuer's recent survey of appendicitis confirms the greater virulence of the first attack. The urine is usually negative, but may show a few white and red cells. Rectal examination may disclose tenderness in cases of retrocecal, or deeply situated pelvic appendices. It is worthy of note that the retrocecal appendix, the appendix deep in the pelvis, and the appendix hidden under the terminal part of the ileum may provoke in all ages only mild abdominal responses, and it is the occurrence of infection in one of the above anatomic types that is responsible for many of the delayed diagnoses.

The highest mortality of appendicitis is at the extremes of life, over age 50 and under age 3. Both these age groups show the highest percentage of perforation and delayed diagnosis. Some of the cases, even if seen reasonably early, already present perforation and peritonitis.

The duration of the infection before perforation occurs is variable. We have seen perforation take place within 10 hours of the onset of the disease. In patients beyond the fifth decade of life, perforation tends to occur early.

The dangers of early good surgery, even in this age group, are infinitely less than the hazards of delayed intervention or expectant treatment. In every instance in which an acute fulminating process was evident, immediate surgery was carried out, regardless of the patient's general condition. Without surgery, the acute gangrenous or suppurative appendix in the aged carries a prohibitive mortality.

It is indeed surprising that the mortality is not higher, if one considers the high percentage of morbidity in the aged. Fifty per cent of the operative cases showed a local or generalized peritonitis. There were 8 patients with generalized peritonitis, of whom 6 died, a mortality of 75 per cent. These were admitted to the hospital in an almost moribund state. Localized abscesses in Morison's pouch, in the pelvis, and retroceally developed in 6 patients each of whom recovered.

No discussion will be set forth of the various conditions which may cause an acute obstruction of the intestines. The circumstances which may bring about an obstruction of the bowel are numerous and varied: Adhesions, bands, previous operations, strangulated hernias, intussusception, tuberculous peritonitis, diaphragmatic hernia, persistent Meckel's diverticulum, volvulus (torsion), obstruction caused by a foreign body (gallstones), fecal accumulations, internal strangulated hernia, *etc.* Occasionally diabetic coma may begin with symptoms suggesting an intestinal obstruction.

The particular reason for the inclusion of this subject is to direct attention to the occasional failure or delay in the diagnosis of small strangulated femoral hernias in the obese aged female. Within the past 3 years, 5 patients were admitted to the hospital in a moribund condition, and the necropsy in these 5 cases disclosed strangulated femoral hernia as the cause of the death. The occurrence of strangulation or incarceration of the bowel in the femoral canal is more hazardous than a similar event, associated with other types of hernia. The femoral canal is small, and the sharp border of Gimbernat's (lacunar) ligament may actually cut into the lumen of the bowel, resulting in a local or general peritonitis, in addition to gangrene of the incarcerated bowel segment.

In the cases noted, the patients were under the care of their physicians for several days preceding transfer to the hospital, and in 2 instances had been seen by eminent consultants. Yet the underlying cause of the patients' complaints passed unrecognized. Of these patients, 4 were obese females, and 1 a male, and all between age 60 to 70.

These cases are cited as examples of how easy it is to overlook a grave curable lesion in the later decades of life. The symptoms at the onset of the strangulation, both at the site of the hernia, and the general abdominal discomfort, may be so mild and innocent that their origin in a strangulated femoral hernia seems unwarranted. It is in the obese female, in whom the panniculus adiposus of the abdominal wall overhangs the femoral region, that this failure of diagnosis is most likely to occur. Initially, the patient usually complains of mild epigastric discomfort, which slowly diffuses over the entire abdomen. This is followed by moderate distention. The patient does not seem very ill, and usually attributes the symptoms to a gastric upset. Only in the very late stages does the patient's condition become alarming.

There is no need of rehearsing the clinical features of the neglected case. But it is well to remember that mild abdominal discomfort may be the first and for a number of hours or even days the only symptom of a small strangulated femoral hernia in the individuals beyond age 60.

There are a number of other features that may be encountered as the cause of acute conditions within the abdomen, such as acute pancreatitis, perforation of an ulcer or carcinoma, acute cholecystitis and renal and ureteral lesions. The late Dr. Shmookler for many years directed attention to a sign in acute pancreatitis, which is often present in addition to the usual clinical picture, *i. e.*, the presence of increased muscle tonus

and tenderness over the upper left half of the abdomen, extending to the loin, and at times as far dorsal as the angle between the twelfth rib and the erector spinæ muscle: additionally there is often a serous effusion in the left pleural cavity.

Acute cholecystitis, if associated with a ptosed liver and a greatly enlarged gallbladder, may so mimic the picture of an acute appendicitis that the diagnosis is made only at the time of operation. The presence of temperature above 101° F. and greater local reaction in the form of pain, tenderness, rigidity, and distention favor a diagnosis of acute cholecystitis. If the diagnosis of an acute cholecystitis is definite and clear, immediate surgical intervention is advisable. We believe in early exploration in acute cholecystitis, particularly in patients beyond age 50. The policy of waiting for the acute inflammation to subside or localize, carries the hazard

of spreading the infection and the perils of perforation of the gallbladder. The accident of perforation is far more frequent in patients beyond age 50, than in any other period of life, and may occur without any acute abdominal symptoms. The finding at necropsy of an unsuspected perforation of the gallbladder in old persons has been repeatedly noted. We have seen 3 such cases.

The group of cases included in this survey are of a type frequently encountered in the everyday practice of medicine. Certainly there is no short cut to an accurate diagnosis, for many of these cases put one's clinical acumen to the severest test.

In spite of the age of these patients they respond most favorably to timely surgery, provided the correct diagnosis is made early.

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GLUCOSE *

With Special Reference to Its Intravenous Administration

W. NEWTON LONG, M.D., YORK

A most useful, efficient, and curative of the moderately recent additions to our armamentarium in treating various conditions is glucose. Glucose or dextrose is the fuel of life's engine.

Let us first consider what glucose does chemically in the body if given particularly intravenously, its various volumes and strengths of administration, five main methods of administration, the untoward effects or unpleasant or even dangerous reactions and their causes, and the various conditions treated.

What are the minute chemical effects of glucose in the blood stream and in the tissues of the body, that cause this markedly beneficial action? If the blood serum of a healthy individual be examined under the dark field microscope, it shows many small globular, refractile particles in colloidal suspension, exhibiting Brownian movement. These are known as protein particles, and they exist throughout all the bodily tissues. These protein particles consist of a nucleus, fats, amino acids, urea, uric acid, sugar, inorganic salts, and electrons. The whole system is held together by water. This system is always being attacked by hostile substances, whether chemical products or microorganisms, which tend to break it up. As these hostile substances remove, one by one, the component parts of these protein

particles, the water in which they swim is set free, and this process is therefore called "dehydration." This is one of the important actions of glucose.

Some of these particles undergo dispersion, namely, they subdivide to a certain point and stop; there is a numerical increase, and in places in which their volume exceeds that of the liquid present, the liquid and solid phases of the blood may be reversed. Instead of being a suspension of solid particles in a watery medium, it becomes a suspension of liquid globules in a solid medium. In other words it sets like a jelly. This is called "gelation." When this happens the patient suffers from intravascular clotting and thrombosis, which causes the clinical signs of cerebral sinusitis, hemiplegia, pulmonary embolism and thrombosis, hyperemesis gravidarum, phlegmasia alba dolens, and many other conditions.

Hydration, or the taking up of water, is a defensive mechanism, called forth by a slow, insidious invader like cancer, chronic tobacco poisoning, syphilis, tuberculosis or alcohol. Chronically hydrated protein particles are very difficult to reduce to normal. Excessive sudden hydration of the protein particles produces the condition known as shock.

The value of glucose before, during, and after operation, lies in its power of dehydrating rapid-

* Read before the York Medical Club, Dec. 23, 1933.

ly these protein particles which have been hydrated by the shock of the surgical assault or the anesthetic. Glucose causes sudden dehydration with the following beneficial results: Rise in subnormal temperature, return of normal color, cessation of sweating, and the patient settles down into normal respirations. If this process of dehydration is carried too far by giving too much glucose, gelation will occur with thrombosis. Insulin in doses of 15 to 20 units may be given; it is a powerful hydrator, about 2 hours afterwards, when the glucose has exerted its maximum effect. Subcutaneous oxygen in amounts from 500 to 1000 c.c. may be given with the glucose to prevent overdehydration.

For the treatment of postoperative ketosis, Barrington-Ward gives 10 per cent glucose per rectum every 4 hours, or 5 per cent glucose intravenously, preferably by the Matas drip method. Alkalies given in these cases help to restore the alkali reserve, but glucose causes a rapid diminution of blood and urine acetone as well as a rise in alkali reserve and arrests the formation of ketone bodies. Glucose not only supplies missing sugar but it goes straight to the root of the trouble and dehydrates the protein particles. If glucose is administered slowly, any excess is absorbed by the liver as glycogen and let loose in the blood stream in the form of glucose as required.

The use of glucose in operations can be summarized as follows:

A. Always give glucose before a severe operation if:

1. Liver efficiency is suspended, namely, if there is a recent history of jaundice.
2. Metabolic rate is high, namely in Grave's disease.
3. Patient is undernourished or emaciated.

B. Always give glucose after a severe operation if a blood transfusion is impossible.

C. Give glucose after any anesthetic if:

1. There is excessive loss of blood, and blood transfusion is impracticable.
2. Patient shows signs of shock (cerebral, splanchnic, or pulmonary).
3. Glucose is not given before the anesthetic.
4. A rough surgeon has operated or it has been necessary to use more than the usual amount of anesthetic.
5. If there is a history of epilepsy.

Glucose may be given in relatively small volumes and in high concentration. Some of the pharmaceutical houses prepare it in sterile ampoules of the following sizes and strengths—20, 25, 50, and 100 c.c. volumes; each 100 c.c. containing 50 grams of D-glucose.

Recently I gave twice daily intravenous injections of 25 c.c. of 50 per cent glucose over a period of 5 days to a critically ill pneumonia case in a girl age 25. She is now convalescent. I have never seen a patient so desperately ill, who eventually got well, and consider that the glucose contributed largely to the end result. After the fifth day of glucose administration she first started to show glucose in the urine. This shows how low her glycogen reserve had apparently dropped. One of the large pharmaceutical houses claim that glucose for intravenous administration must be of such a high grade of purity as to come within the definition of the term dextrose.

An important development in the past decade has been the gradual perfection of the technic of continuous slow intravenous injection of dextrose. Dr. G. A. Hendon, of Louisville, Ky., is responsible for much of this advance, and has named his procedure "venoclysis." A glass drip-per in the course of the connecting tubing permits counting the number of drops being delivered per minute, and so regulates the flow that it enters the blood stream in accordance with the physiologic tolerance of the patient. In the beginning, 40 drops per minute are used. A 10 per cent dextrose solution given at the rate of 200 c.c. per hour is in accord with the patient's tolerance. At this rate he would receive between 4000 and 5000 c.c. per day and approximately one pound of dextrose. Normal salt solution may be the vehicle or citrated blood may be added to the dextrose solution.

The 6 principal methods of administration are: By mouth; intravenously (small concentrated or large weak solutions, the former by Luer syringe and the latter by the Hendon continuous drip method); and by enteroclysis, hypodermoclysis, intramuscularly, and intraperitoneally. For obvious reasons, the intravenous method is the one of choice.

In giving glucose to diabetics in whom excessive dehydration is already going on, because of excessive urination, it will further dehydrate unless it is given in large quantities of low concentration, especially in normal salt solution, as this will fix the liquid more thoroughly in the tissues.

Intravenous glucose should not be given between the hours of 4 and 6 a.m. as at this time liver activity regarding the metabolism of glycogen is at its height. Glucose is lowest in the

blood between the hours of 12 noon and 2 p. m., hence this would be the most suitable time to give it in severely ill cases.

The untoward effects and unpleasant or at times actually dangerous reactions seen occasionally during or following the intravenous administration of glucose solution are severe prolonged chills followed by high fever. In a very severely ill patient we do not like to get these reactions because of the severe shock and strain placed on an already damaged or weakened heart muscle. A very striking example of this reaction, I had several years ago in treating a patient for severe bronchopneumonia. The most disturbing and dangerous symptoms he had were marked toxemia, marked dryness of the mouth, tongue and throat, delirium, loss of bodily liquids, renal insufficiency, loss of glycogen reserve, and extreme weakness, because of the severity of the infection, and also to his almost absolute lack of coöperation in taking nourishment and especially liquids. He was given about 500 c.c. of 5 per cent glucose in sterile normal saline solution intravenously by the continuous flow (not drip) method, over a period of 2 hours. One half hour later he had a chill lasting for $\frac{1}{2}$ hour, he was mildly cyanotic, pulse very rapid and thready. In another half hour his temperature went up to 105° F. and remained there for an hour. It then promptly came down to normal with a profuse sweat, and from that time he started to get well. The kidneys commenced to secrete freely, mouth and throat moistened, and the pneumonic process quickly and completely resolved.

These reactions are claimed to be due to chemical impurities taken up by the solution from the rubber tubing, particularly if it is new tubing, if given by the slow gravity methods; also by bacterial toxins, called "pyrogen" or nitrogenous toxins generated by bacteria that are present in insufficiently distilled water. The water should be double distilled. Also some of the chemical impurities may be present in the glucose. A 25 per cent solution is generally the desirable strength. The reaction due to the rubber tubing can be overcome by soaking in soap and water for one hour, washing well with soap and water, washing in running water, soaking for 4 hours in 4 per cent solution of sodium hydroxide, washing well in running water, and washing well in distilled water.

In treating infants, glucose can be given in 100 c.c. quantities of 10 per cent solution intramuscularly, subcutaneously, and also intraperitoneally.

The rate of intravenous injection should not be more than 4 c.c. per minute of a 25 per cent

solution, the solution being kept warm during the time of injection. Dextrose solution may be sterilized by autoclaving at 15 pounds pressure for 15 minutes. Conditions treated with glucose are:

Obesity.—According to Gordon and Stanley, of Philadelphia, glucose is given by mouth, during the rigid dieting in obesity, to supply available fuel to overcome undue weakness. It is given by mouth in the form of a confection.

All conditions characterized by carbohydrate deficiency, as hypoglycemia particularly after overdosage with insulin and ketosis or acidosis.

Diseases accompanied by prolonged high febrile states, thereby sparing protein and tissue destruction.

Toxemias of pregnancy.—The two conditions in which glucose, particularly intravenously, is most useful are the early toxemia, hyperemesis gravidarum, and the late, or eclampsia. The main action in the early toxemia is the sparing of liver glycogen, and in the later form, cerebral dehydration, sparing of liver glycogen and preventing liver atrophy.

Cyclic vomiting.—Carbohydrate overcomes the accompanying acidosis. This occurs mostly in the diseases of childhood. Often in these cases insulin is administered with the glucose (1 unit of insulin to each 3 grams glucose).

Seasickness.—In the cases of seasickness, which have been shown to be characterized by low blood sugar, Oriel observed relief of some of the distressing symptoms following the administration of dextrose in small doses, given mostly by mouth in acid fruit juices.

Physical exhaustion.—Glucose provides available carbohydrate given by mouth in most cases or as an emergency measure, intravenously.

Diabetic coma.—In this condition, ketone acids accumulate because insufficient dextrose is being utilized to provide for the perfect metabolism of fats. Dextrose is present and in excess but must be used because of insufficiency of insulin. "There is eventually a starvation in the midst of plenty." Under such circumstances the administration of insulin permits the dextrose present to be metabolized, and if the amount of the dextrose is sufficient, the ketone acids present may be so large in proportion to dextrose that complete conversion does not occur, even if sufficient insulin has been given to provide for the metabolism of the accumulated dextrose. It is in such cases that the administration of extra dextrose has been recommended by Bulger and Peters. John further recommends the use of dextrose combined with insulin in preparing diabetics for surgical operation. He advises 250 c.c. of 10 per cent dextrose with 20 to 25 units of insulin.

Insulin shock.—Glucose may be given in these cases intravenously when the patient is unconscious.

Malnutrition.—Athrepsia, and marasmus. It may be given intramuscularly or intraperitoneally.

Pneumonia.—For the marked toxemia of pneumonia it is very useful and often life saving.

Sepsis.—To reduce and overcome toxemia.

Diphtheria.—To overcome toxemia, and make up for a depleted glycogen reserve.

Severe burns.—To reduce toxemia, and overcome blood concentration, and by diuresis to remove products of tissue destruction.

Anesthesia.—It protects the liver against poisons, and by diuresis it favors the elimination of the drug.

Other conditions in which dextrose acts favorably are drug poisoning, Grave's disease, diseases of the liver, nephritis and uremia, surgical shock and collapse, postoperative acidosis, obstetric shock, hemorrhage, anhydremia, alimentary intoxication, acidosis, heart failure, angina pectoris, digestive disorders, celiac disease in infants, encephalitis, cerebral edema, meningitis and myalgia.

34 S. Beaver Street.

PREVENTION OF BLINDNESS *

During Middle and Advance Age

AARON BRAV, M.D., PHILADELPHIA

In considering the problem of blindness during middle and advance age we must bear in mind that the vast majority of cases of blindness that occur in those who have passed the meridian of life are caused by the congestive glaucomas and senile cataracts. The discussion will be confined to these 2 diseases. Both of these conditions require surgical interference to save the patient from blindness, and both could be prevented in the majority of cases and the incidence of blindness in advance age could be reduced to a minimum, if proper attention were paid to the eyes before these diseases make their appearance.

GLAUCOMA

Though considerable advancement has been made in the treatment of glaucoma since the days of Van Graefe, and we must concede the fact that iridectomy and other surgical procedures have saved many persons from blindness, it is nevertheless an incontrovertible fact that many patients after middle age are still annually becoming blind from this disease. In the majority of instances the patients must share the responsibility for this unfortunate condition, because they consult the ophthalmic surgeon too late. In some cases the ophthalmologist for some reason has delayed operative measures too long to the disadvantage of the patient. Not infrequently, however, some patients become blind despite every conscientious effort of the ophthalmologist and every honest coöperation of the patient. Acute glaucoma, or hardening of the eyeball, is

a congestive condition caused by an increase in the intra-ocular pressure produced by an obstruction in the drainage system of the eye. After careful and mature deliberation I have come to the conclusion that cases of acute glaucoma should be treated years before they actually develop. Every experienced ophthalmologist recognizes all or nearly all the potential glaucoma cases. These are the high hyperopic cases with shallow anterior chambers, small corneas, narrow circumferential spaces, large lenses and sluggish irides. These patients if observed between age 25 to 35 should be considered as potential glaucoma cases and should be treated from the point of view of prevention. They should not be allowed to reach the acute stage of congestive glaucoma without a warning to the patient, and without special preventive measures. As a matter of fact, all acute cases of glaucoma give a history of minor temporary attacks known as the prodromal stage long before the acute attack sets in. Nature is kind enough to give sufficient warning months and even years before the acute condition sets in and not infrequently if this warning is heeded it may prevent the acute attack. The special preventive measure is based upon an etiologic element which undoubtedly is the direct dominant factor in the causation of glaucoma.

What is the direct irritative dominant cause of acute glaucoma? I do not believe in the so-called hereditary influence in the causation of this condition, except in so far as certain congenital anatomic features in the eye predispose to this congestion. The word congestion is used

* Read before the Southeast Branch of the Philadelphia County Medical Society, Sept. 28, 1933.

advisedly for acute glaucoma is primarily not an inflammation in the true sense of the word; it does not behave like other inflammations in the eye. To be sure, there is redness and pain, occasionally swelling of the lid and conjunctiva but these are the result of congestion caused by compression of the venous channel rather than inflammation. There is no active exudation of inflammatory products in this disease, although eventually the vitreous is involved, becomes cloudy and opaque, but this too, is due to stasis and congestion. Racial predisposition has been unduly stressed, except perhaps in so far as some races are highly hyperopic, have small eyes and very limited circumlental spaces. Thus the people in India are predisposed to glaucoma because they are extremely farsighted and very few of them have any idea how to care for their eyes. Neither is the emotional element a contributing factor. It is not conceivable that a nervous or psychic disturbance can produce an actual obstruction in the drainage system of the eye. Some vasomotor disturbance with ciliary spasms may give rise to prodromal symptoms by temporarily compressing the canal of Schlemm but cannot cause an acute lasting obstruction. The only rational explanation for the phenomena of acute glaucoma is that it is the terminal result of a slow but continuous prolonged mechanical irritation that has been active for years, owing to overaction and subsequent hypertrophy of the ciliary muscles and ciliary processes crowding in the circumlental space, producing a local congestion and ultimately a compression of the venous channels and drainage canal followed by the symptom complex of acute glaucoma.

CATARACT

The same process of reasoning is applicable to the causation and treatment of cataract. In this paper we have reference to the group of lenticular opacities that are known as senile cataracts. No one individual factor can in a satisfactory manner explain all the causes of cataracts. The main causal element in senile cataract is a local mechanical slow irritation of the lenticular substance. The lens being an epithelial structure is not subject to inflammation but constant slow irritation of a mechanical character will cause some liquid to develop within the lens substance causing a separation of lens fibers; something similar to the formation of a blister of the skin due to prolonged irritation or pressure on the surface. This is the case in all incipient stages of cataract. What causes this local irritation? The lens is inclosed in a capsule; in the process of accommodation the lens substance has to change its contour to enlarge its radius of curva-

ture and in middle and advanced ages the lens is no longer as elastic as in early life. The epithelial cells of the capsule of the lens, proliferate, cause more pressure on the lens substance than in early life. When the lens becomes overworked at this stage because of high errors of refraction, the irritation caused by constant mechanical friction of the lens against the capsule and the constant effort of the lens itself to contract and to expand to meet the needs of accommodation, will eventually cause some liquid to appear in the lens substance and give rise to the opacity that is called incipient cataract. There is no method of treating incipient cataracts with any degree of success. Those cases that are stationary require no treatment; those that are progressive, yield to no treatment. This dogmatic statement is the result of 30 years of experience; the statements of some textbook writers to the contrary, notwithstanding.

The younger men who use subconjunctival injections will eventually discard them as a useless surgical effort. To keep on using these injections for years in these cases is a surgical procedure that should be condemned. For experimental purposes it may be tried but should not be prolonged. I gave up this procedure 15 years ago as useless, misleading to the patient, and not altogether free from danger. I doubt if any ophthalmologist unfortunate enough to be afflicted with incipient sclerosis of the lens would be willing to have subconjunctival injections for the rest of his life with the idea of preventing the further development of the cataracts or with the idea of curing the already partially sclerosed lens. My motto is the Talmudic ethical precept: What you would not have others to do unto you, do not unto others. Our only rational preventive measure, is the reduction of the mechanical irritation to a minimum by optical aid early in life before the lens undergoes senile changes.

If this rational explanation of the cause of acute glaucoma and cataract is correct, it follows that the only rational preventive treatment must begin years before the diseases actually manifest themselves.

PREVENTIVE TREATMENT

All hyperopic eyes that are predisposed to a possible attack of glaucoma or to the development of cataracts, should be considered from the point of view of prevention. Every case of hyperopia after age 25 should be carefully corrected not only for the removal of any symptoms of eyestrain but also with the express purpose of preventing the formation of cataracts and the development of acute glaucoma. These hyperopes in their preglaucomatous and precataract

stages, should be given as full a correction as possible, even though the distant vision will be somewhat blurred thereby. The patient should be told that this will occur in the beginning and that these lenses are given with a definite object in mind, namely, the relaxation of the ciliary muscles as far as possible. In the early stages of presbyopia an extra pair of lenses should be given for reading purposes even though the patient is able to read without this optical aid. The patient should be told that this extra pair of reading glasses are prescribed as a preventive. Under no circumstances should a high hyperope be permitted to read without this extra precaution after age 40. These patients during the early presbyopic stages try to struggle along with the distant lenses and object to the extra reading glasses, but it is essential from the point of view of prevention that they should be worn. Nature will have her way and you should listen to her voice of warning. If we are to succeed in pre-

venting blindness after the meridian of life we must begin the only rational preventive measures that are at our disposal, years before the presbyopic age sets in.

The purpose of this paper is to excite the interest of the general practitioner and the laity in this very important subject to the end that the number of glaucoma and cataract cases may be reduced to a minimum. The conservation of vision and the prevention of blindness prompts me to bring this matter before the members of this society hoping that in the future many eyes may be saved by this simple method of preventive treatment.

When mankind shall have learned the prophylactic value of early optical aid to keep the human photographic machine from overwork the incidence of glaucoma and cataracts will be reduced to a minimum and blindness, in advanced age will become a rarity indeed.

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THE ABUSED CERVIX

JAMES W. KENNEDY, M.D., PHILADELPHIA

In using the title "The Abused Cervix," it is my purpose to discuss and describe the gross picture so often seen in the abuse of the organ, from laceration, erosion, hyperplasia, irritating discharge, multiple nabothian cysts and malignancy lurking in an organ twice its normal size and often distorted beyond recognition.

Is there any organ which is more abused than the cervix? Is there any other organ that has been more discussed and written about during the past 5 years than the pathologic cervix? Is there any other organ in which abuse or neglect has been more costly in morbidity and mortality than neglected pathologic conditions of the cervix? Is there any other threatening pathologic condition which is so amenable and accessible to proper treatment to a large number of the medical profession as the eroded, inflamed and lacerated cervix? Is there any organ in the female anatomy in which benign pathologic condition points so forcibly to the etiology of malignancy if neglect has been evident? Is there any other condition in which trauma, infection, and irritation is so uniformly followed by malignancy? Indeed, it is the one organ which is most often named in discussing the relation of trauma and irritation to the cause of malignancy.

For the past 50 years the veterans of our profession have been calling attention to these state-

ments by which an attempt has been made to point out the most common and costly neglect in the entire field of gynecology.

There is so little excuse for a death from malignancy of the cervix that one is within his rights if he makes the statement that a death from a malignant cervix is a professional crime rather than of excusable professional neglect. Personal responsibility enters here and can be definitely traced to the source of neglect in at least 95 per cent of the cases.

Has one ever lived sufficiently long, had sufficient experience, and is of an authority which would permit him to say to the profession, "This must be done"? If such were true, let him say, "The abused cervix must not be carried by any woman, there is a remedy." It is unthinkable that any member of our profession could continue to neglect the potentially malignant cervix. It is untrue to excuse such neglect as an act of ignorance.

There is not a reading member of our profession who is not familiar with the malignant tendencies from any pathologic cervix. There is no professional excuses for at least 95 per cent of deaths from malignant cervix. I have seen but 2 cases of malignancy of the cervix in my 35 years' experience in constant association with hospital, dispensary, and consulting work in

which there was little evidence of malignancy at a very much earlier date. Malignancy of the cervix does not hide its light under the bushel basket to the extent as does malignancy of the body of the uterus.

We must have more forceful teaching, less classification and chasing of phantoms. If for 50 years the profession has been in possession of definite knowledge of cause and effect concerning the abused cervix and later malignancy, why does malignancy of the cervix reap so rich a harvest at this hour?

As a gynecologist I am the possessor of the liabilities of a private hospital in which it would be easy for me to do much minor gynecology such as applications to the pathologic cervix yet during the past 25 years I have not made a single application to the cervix. I have no income from this source. I want to say to members of my profession, "Let your income from this source be as small as possible; most of it is meddling gynecology."

The prevention of the malignant cervix begins as soon as the placenta is delivered. Enough has not been said concerning repair of the cervix immediately following labor. Many men who rank as obstetricians have been negligent. The many failures of repair of the cervix if done by any kind of absorbable sutures has almost put the operation of cervical repair in the discard. Always repair the cervix after any complicated labor and do it with silkworm-gut. Get rid of all that is not dependable.

We, in the Joseph Price Hospital, always repair the cervix and during my entire professional life I have not the record of a case of malignancy of the cervix following my work. This is the privilege almost of any physician; for, if he is not well prepared to take care of the damaged cervix incident to labor, he is in the position to obtain competent aid. Personal responsibility should be assumed. The obstetrician has not laid down as he should the law in regard to repair of the cervix with the teaching force. The ultra scientific papers which have been published by the thousands during the past 5 years have failed to obtain practical results.

I entertain no brief against the scientific classification of the pathologic condition of the cervix which fills our literature but superlative degrees of dependence should not be placed upon ultra refinements in histopathology if dealing with questionable malignancy in an organ that can be removed with almost a nil mortality. Judgment here is golden. Our privileges are magnificent; our executions are a disgrace.

Thirty years ago more than 90 per cent of the

patients who came to the Joseph Price Hospital with malignancy of the cervix were at an operable stage; now, not over 5 per cent report at an operable hour. This proportion is sufficiently accurate to be of great significance.

Are the supposed advancements in science always what they seem to be? Has the use of irradiation really given results which indicate progress? Has the use of irradiation kept any great number of patients from a much earlier operative hour with dire results? Given a glandular organ such as the uterus or breast which can be removed with almost a nil mortality, irradiation will not be the final treatment endorsed by our profession but surgery will. A very small percentage of our profession have access to radium or roentgen ray and still a smaller percentage know how to use irradiation intelligently, whereas the removal of the uterus at an early date is accessible to the entire operating profession. The operating profession constitutes too many who have had little experience in major surgery but at the same time they operate and will continue to do so; therefore it is our duty to place in their operative possession some means of dealing with the malignant cervix at an early hour.

In more than 95 per cent of the cases of a suspicious cervix the organ is a sterile one, at a sterile age, and in a sense a foreign body and its removal does not rob the patient of a vital function. Its total removal, as a vaginal hysterectomy can be done in less time than amputation of the cervix and with no greater mortality, is a much more thorough operation.

In the Joseph Price Hospital removal of the uterus as a vaginal hysterectomy, clamp method, for over 45 years has had no higher mortality than that from irradiation throughout the country. Operators who have had no experience with vaginal hysterectomy, clamp method, are in no position to discuss the relative merits of surgery as compared with irradiation.

Clamp method of hysterectomy is a very much more thorough operation than that from ligatures as the slough incident to the crush by the forceps removes a great deal of tissue of malignant possibility.

This is not a paper for any exhaustive discussion. Volumes can be written and have been with little accomplishment. Malignancy of the cervix is on the increase. I am seeing more cases at a much later date; and a greater number of extravagant cervical tears which go unrepaired. There is a loss of interest in cervical repair and many repairs are an utter failure so there are well recognized reasons for the abused cervix.

My message is early removal of the uterus, which has an abused cervix beyond repair, the operation to be done as a vaginal hysterectomy, clamp method.

This procedure is fully illustrated in a monograph entitled, *Practical Surgery of the Joseph Price Hospital*.

The Joseph Price Hospital.

ETIOLOGY OF LONG CONTINUED FEVERS *

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Among the most puzzling cases referred to the hospital by the general practitioner are those with a protracted fever of unknown etiology. The physician has often been unable to procure before the patient's admission to the hospital a blood culture, roentgen examination of the chest or genito-urinary tract, accurate visual field examination, and other more or less specialized laboratory procedures. It is this kind of case, which handled in a thoughtless routine manner costs the hospital much unnecessary expense in running the gamut of laboratory and roentgen examinations requested wholesale by an uncritical intern. A complete history and careful painstaking physical examination will in many instances suggest the few essential tests which can lead to a correct diagnosis.

Among the foremost causes of long continued unexplained fevers, commonly called "P.U.O." (pyrexia undetermined origin) are tuberculosis, and syphilis. The tubercle bacillus may invade any tissue of the body—lungs, brain, larynx, intestine, lymph nodes, kidneys, suprarenal bodies, testes or ovaries, bones, and joints. Attention may be drawn to this diagnosis by a history of familial tuberculosis or of recent exposure to such, of fistula-in-ano or ischiorectal abscess, of cervical scar dating back to an excision of purulent nodes in infancy, or of a so-called dry pleurisy. In long standing cases, the narrowing or disappearance of Krönig's isthmus (the shoulder strap of resonance normally present) is of assistance; auscultation high in the axilla will more than occasionally yield rich dividends. Positive tuberculin tests are of doubtful value; however, a negative adult test is of inestimable aid in ruling out an active tuberculous process. Other aids in diagnosis which may prove necessary include chest roentgenograms which may disclose a miliary tuberculosis in the complete absence of physical signs; urograms, revealing the typical moth-eaten appearance of renal tuberculosis; and spinal fluid examinations. In tuberculous involvement of the meninges, the spinal fluid commonly shows a thin pellicle in the liquid after

standing which often contains the causative agent, a reduction of chlorides below 640 mg. per 100 c.c., and an increase of cells to 50 or several hundred per cu. mm., mostly lymphocytes. It is to be remembered that while most tuberculous processes are accompanied by a normal or subnormal white blood count, in tuberculous meningitis a well-marked leukocytosis (25,000 or more) usually prevails.

Concerning syphilis, the most frequently overlooked lesions are those of the mucous membranes (mouth, genitalia, and rectum). The palms and soles should always be adequately examined for the presence of shotty papules. One must remember that the epitrochlear lymph nodes are not infrequently found an inch or more above their usual location which is just within and above the internal epicondyle of the humerus. In the presence of a positive blood Wassermann reaction in an individual with a pulmonary lesion, 3 possibilities should be kept in mind: The reaction may be a false positive which is sometimes encountered in pulmonary infection, and usually becomes negative following the subsidence of the fever; the presence of syphilis may definitely prolong the course of the lung infection, and thus lead to a false diagnosis of abscess or empyema; and the question can be raised whether the lung lesion is primarily syphilitic. We have never seen a proved case of adult pulmonary syphilis in this clinic.

A smouldering rheumatic fever may occasionally be overlooked as a cause for pyrexia. The promptness and degree of the response to salicylates or amidopyrine, together with suggestive features in the history, will usually point toward the diagnosis. On the other hand, it is often overlooked that gonorrheal arthritis usually begins as a multiple migratory joint involvement before later becoming limited to one region. It is more apt than a rheumatic infection to involve the sternoclavicular, temporomandibular, and vertebral joints. A positive gonococcus complement fixation test is of aid in diagnosis; a negative test is valueless.

Subacute bacterial endocarditis should be suspected in a patient with a history of previous

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rheumatic infection, who at the time of examination manifests a continued low grade fever, weakness, loss of weight, and a palpable spleen. In addition to blood culture, the presence of petechiæ (conjunctival, retinal, or buccal), macrophages in blood smears obtained from the ear lobe after massage, and of painful fingers or toes is of value.

Malta or undulant fever (*B. abortus* infection) may simulate acute rheumatic fever not only in the joint involvement, but also by the extreme sweating usually present; malaria, rheumatic, and undulant fever have been called the sweating diseases. A palpable spleen, leukopenia, and a positive agglutination test for *Brucella melitensis* in a dilution of 1:50 or more, are the characteristic diagnostic features.

Typhoid fever is in most sections of the United States a medical rarity. A word of caution may be interpolated regarding the too ready acceptance of a positive Widal reaction as diagnostic of this disease, for the reaction may be obtained in an individual who has previously had either the disease or injections of typhoid vaccine.

Malarial plasmodia can sometimes be found only by very careful search in a thick smear preparation just before the expected chill; even failing in this, the presence of recurring chills, sweats, and fever, in the absence of any recognizable purulent collection, is adequate reason for quinine therapy. Chills, sweats, and fever may be the sole symptoms of a purulent collection in any portion of the body: Liver, subdiaphragmatic, perinephric, pulmonary, bone (osteomyelitis), or cerebral. Patients with liver abscess frequently have a history of peptic ulcer, perhaps also of possible perforation and emergency operation, or of acute appendicitis or salpingitis, of rectal disorders including hemorrhoids, or of amebic dysentery. Fluoroscopic examination will reveal absence of diaphragmatic motion on the affected side with elevation anteriorly, in the case of an hepatic, and posteriorly, in the case of a perinephric abscess; in addition, there is often basal pulmonary reaction on the involved side. A history of preceding sore throat or of a recent swimming excursion is frequently encountered in osteomyelitis. Roentgen examination is valueless in the early diagnosis of the latter condition. Accurate visual field determinations may give the first clue to a brain abscess.

A fact sometimes forgotten is the frequent absence of pus cells in the urine at the height of a pyelitis because of ureteral blockage; the pus in such cases appears in quantity as soon as adequate drainage is established and this may be

coincident with the fall of temperature and leukocyte count.

An irregular, protracted, intermittent fever is common in the lymphomas—Hodgkin's disease (Pel-Ebstein fever), leukemia, retroperitoneal sarcoma, and also in infectious mononucleosis. Careful physical examination may disclose a variable enlargement of the spleen, and possible evidence of enlargement of mediastinal, mesenteric, or retroperitoneal lymph nodes. Irregular low grade febrile periods are also not uncommon in Addisonian anemia.

Intestinal parasites may cause pyrexia resulting from absorption of toxic products. The diagnosis is sometimes suggested by an eosinophilia, in the absence of any allergic history. Trichinosis has been frequently overlooked, having been referred to the ophthalmologic division because of a chief complaint of orbital edema. A history of ingestion of poorly cooked pork, or gastro-intestinal upset, and of muscle pains, followed by a biopsy of the gastrocnemius or deltoid muscles showing the larvæ leads to the correct diagnosis.

Tularemia should be suspected in a febrile individual with a history of handling ground squirrels or wild rabbits, either in a butcher shop or in hunting, or of trauma by biting insects. Diagnosis is confirmed by blood culture, or by agglutination test for the *Pasteurella tularensis*; the agglutination typically becomes positive in dilutions of 1:80 or higher in the second week of the disease.

Typhus fever has recently been found widespread in the United States. An abrupt febrile onset, with marked prostration, severe nervous symptoms, a macular eruption usually becoming petechial, and a continuous high fever are found, the latter terminating by crisis or rapid lysis on the twelfth or fourteenth day. Rocky Mountain spotted fever is so closely related to typhus infection that a distinction in diagnosis is unimportant in so far as the practitioner is concerned, as both in time may be proved to be due to closely related, if not identical, etiologic agents.

Protracted fevers occur in pulmonary fungus infections: Actinomycosis, nocardiosis, blastomycosis, sporotrichosis, aspergillosis, and coccidioid granuloma (most of the cases of the latter occurring in California). The diagnosis will be suspected only by remembering the possibility of these disorders in pulmonary infection and tested by performing repeated sputum examinations with cultures grown on Sabouraud's or some equally suitable medium. Likewise psittacosis, if a forgotten possibility, may cause no little embarrassment to the physician when inquiry might readily lead to the history of contact

with a sick Amazon parrot or with love birds perhaps in the home of the patient.

Diverticulitis and diverticulosis with a long drawn out febrile course have often led to a mistaken diagnosis of carcinoma of the colon, and without operative intervention the error may not be recognized.

Trypanosomiasis, relapsing fever, and yellow fever are uncommon in this country. Meningococcemia, also a rarity, is not usually a stumbling-block if symptoms of meningeal irritation are present.

Especially useful in estimating the activity of tissue destruction during the course of an infection is the sedimentation test. This can be performed with ease in the office or at the patient's home. It may serve as a useful measure of improvement as in instances when removal of

chronic focal infection brings about cessation of protracted pyrexia and perhaps somewhat more gradually the return of the white count and sedimentation time to normal.

SUMMARY

1. A brief résumé of the more important causes of long continued fevers has been presented.

2. No attempt has been made to outline in detail the symptom complex of each disease, but rather a few salient diagnostic features and laboratory aids have been selected which are of especial value. Such selection needs to be practiced by the hospital intern in the intervals of economy and often makes diagnosis possible for the general practitioner.

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AN ECHINOCOCCUS CYST

In the Subcutaneous Tissues of the Thigh

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In this country, the presence of an echinococcus cyst in the subcutaneous tissues of the thigh is sufficiently uncommon to merit a report of the case.

A white male, age 48, born in Italy, was admitted to the Surgical Service of the late Dr. John Speese at the Presbyterian Hospital, May 10, 1932, with a chief complaint of a slowly growing tumor of the right thigh. The mass was first noticed 3 years before admission and has grown progressively. For the past 2 years at intervals of 6 months the patient has experienced soreness in the tumor, relieved by rest in bed and aggravated by exertion.

The patient has lived in this country for the past 24 years, and has always been healthy. Gastro-intestinal and respiratory history was negative. There was no history of trauma of any type to the right thigh. Even as a child, has had no contact with the lower animals.

Physical examination was entirely negative, except for the local lesion. There was present on the antero-lateral aspect of the right thigh, a soft, painless, fluctuant tumor with lower border just above the knee joint, measuring 10 by 12 by 6 cm. The skin was freely movable over the tumor which was adherent to the deeper structures.

Laboratory studies of blood and urine were normal. Roentgenograms of the right thigh showed the presence of a soft tissue mass, but no involvement of bony structures.

Preoperative Diagnosis: Cyst of right thigh. Operation: May 12, 1932. Prior to incision an aspirating needle was inserted and thick yellow material was withdrawn. Longitudinal incision was made over the mass, the wall of the cyst was opened, and about 250 c.c. of similar material was removed. On closer inspection of

the material there was seen many pinpoint cysts. The cyst wall was covered with numerous bluish white looking cysts from size of a pinpoint to that of a white grape. The mother cyst was carefully excised from the muscle and fascia, and the cavity was swabbed with Scott's solution. The fascia was repaired, and the skin was closed with interrupted black silk sutures. A rubber tissue drain was inserted. Pathologic Report: Cyst wall, 3 mm. in thickness, accompanied by hundreds of varying sized cysts, some containing gelatinous material, others ruptured. Microscopic examination showed laminated parallel striations in the cyst wall, and the presence of a few hooklets. Diagnosis: Echinococcus cyst.

After operation, a roentgenogram of the chest was made, and was negative for pulmonary echinococcosis. The wound healed without incident and the patient was discharged, May 29, 1932. Follow-up visits in October, 1932, and September, 1933, showed no evidence of recurrence of cyst locally. Physical examination was also again negative.

Several of the small cysts were placed in the peritoneal cavity of a rabbit, but 2 months later no implants were discovered at necropsy. Deve reported the first successful implantation of echinococcus cyst in the experimental animal—in the tibia.

This case is reported because of the location of the cyst, and speculation as to the mode of implantation in the thigh. Heller¹ stated that "the larval stage of *tænia echinococcus* occurs in practically every organ of the body although the liver is the site of the cyst in 50 per cent of cases, lungs and kidneys 10 per cent each, spleen 15 per cent, central nervous system 5 per cent,

* Dr. John Speese deceased, Oct. 15, 1933.

and other areas 10 per cent." Heller found abdominal wall cysts in the region of the umbilicus. Boyd² reported that "hydatid cyst of muscle occurred in less than 2 per cent of cases of hydatid disease." The literature from the Argentine and Australia abound with case reports of hydatid cysts in unusual locations. Bengola and Saurez reported 4 cases of unusual implants: One in the rectus abdominis, 1 in the splenius colli (right), 1 in the thyroid gland, and 1 in the right gluteal muscle.

Kaufmann³ stated that "while the usual route is from the gastro-intestinal tract, *via* portal system to general circulation, and on traversing the pulmonary circulation may lodge in any portion of the body, however, the ova may enter the lymphatic circulation directly from the gastro-intestinal tract, reach the right heart, and thus be distributed."

Heller believes that in practically every instance of abnormally located cyst there is a primary intra-abdominal hydatid cyst. Dew⁴ stated that "secondary echinococcus cysts are of simple type and rarely larger than a hen's egg," and is

also of the opinion that "infestation occurs during infancy and the cyst is nearly as old as the host."

This case does not conform to either of the requirements made by Dew or Heller, as there was no evidence either by history or physical examination of an intra-abdominal primary cyst, and the hydatid cyst contained daughter cysts. Furthermore the cyst had been discovered but 3 years prior to admission to the hospital. It is possible that a minute penetrating wound could have occurred in infancy, and that tænia echinococcus eggs implanted at that time could have grown very slowly until 3 years ago. Such a fantastic mechanism could explain the presence of the cyst, however the most likely method is one of the routes described by Kaufmann.

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TREATMENT OF CANCER OF THE BREAST*

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At the meeting of this Society held in Clearfield in 1929, I read a paper on the radiation treatment of cancer of the breast in which my views were expressed as to the indication for such treatment and the technic which I had found most valuable for the various phases and complications which are encountered. I have not had occasion to alter those views in any essential particular, or to retract any statements made in that communication. In the face of so many contradictory articles, however, which have appeared in the literature since that time it may not be amiss to consider this subject again and to restate opinions and results in the light of further experience.

For purposes of discussion the subject will be considered under four subtitles:

Radiation without operation; preoperative radiation; postoperative radiation; and, treatment of recurrences.

RADIATION WITHOUT OPERATION

Opinion in the past has been practically unanimous that such treatment should be confined

to those cases that have been declared inoperable by a competent surgeon. The position taken by Sir Berkley Moynihan in an address delivered in New York a year or so ago in which he declared himself unwilling to operate on cancer of the breast in the future, having abandoned operation for radiation treatment, was undoubtedly a revelation to many radiologists who were present. I have myself always taken the position that cases which are operable should have the benefit of surgery as this removes large masses of tumor tissues quickly and even if it does nothing else, it saves much unnecessary radiation. The surgeon naturally hopes to eradicate the disease entirely and although this happy result is not always obtained, the number of permanent cures is sufficiently great to justify the procedure. The most important question to the radiologist at this time is whether radiation might not accomplish a similar result if it were carried out with the same thoroughness with which the surgeon does his radical operation. I have not yet reached the point at which I would feel like advising a patient with an operable case to submit to radiation in preference to surgery, but the experience of the past 3 or 4 years leads

* Read before the Pennsylvania Radiological Society.

me to think that radiation technic may become so improved as to accomplish practically the same results as operation. This statement is based on the results achieved in inoperable cases in which large tumors in the breast and metastatic glands, in the axilla and supraclavicular region have entirely disappeared following radiation alone. Statistics are often meaningless and case reports are tiresome, but to substantiate the statement just made the following cases are cited:

Mrs. H. M. H. first noticed a lump in her left breast in the early part of 1928. She resorted to various types of palliative treatment which did not include radiation. In February, 1931, she went to the Mayo Clinic in which a diagnosis of cancer of the breast was made, but operation was refused as the condition was thought inoperable. She was given a course of roentgen-ray treatment over the breast area before she left the clinic and advised to consult me for further radiation. She presented herself on April 17, 1931, with a mass the size of an orange in the left breast, the left nipple was almost completely inverted, the skin was adherent to the mass. Roentgen-ray examination of the lungs showed no evidence of metastasis. There were enlarged glands in the left axilla. Treatment was instituted at once over the left breast. At the next visit a week later, a mass the size of an egg was noted in the right breast also. Both breasts, both axillae, and both supraclavicular regions were treated using 135 kv., 6 mm. aluminum filter and applying an erythema dose over each area every 3 weeks until each area had received 3 treatments. At the end of that time there was so much skin reaction that treatment had to be suspended. The patient was kept under rather close observation until November, 1931, at which time a final treatment was given over the left breast. The lumps in both breasts had disappeared by that time. Today it is impossible to detect any disease in the right breast. The left breast is much contracted and the nipple inverted, but the entire breast is soft and there is nothing to indicate the presence of carcinoma. In fact if the nipple were not inverted, one might doubt the diagnosis had one not seen the case 2 years ago. While this case represents the most complete involution of an advanced carcinoma of the breast that I have seen, I now have under treatment several inoperable cases in which the disease has been held in check for periods up to 3 years.

The argument may be advanced that this was not a proved case since biopsy was not made, although this argument would not have any weight to one who had seen the case. Another case will be cited in which pathologic proof is available.

Mrs. W. J. had the right breast removed in 1923 for carcinoma, diagnosis confirmed by pathologic examination. She developed a recurrence in the fall of 1927 and a second operation was performed. A second recurrence developed in February, 1928, and the surgeon then referred her to a Philadelphia surgeon who thought the patient inoperable and advised radiation. I first saw her on March 5, 1928. There was a mass about the size of a small orange in the anterior part of the right axilla, which was very hard, fixed, and the skin adherent over it. The axilla was crossfired front and back, using

200 kv., $\frac{1}{2}$ mm. copper filter, 20 inch distance and applying dose of 1050 R over the anterior surface at the initial treatment and a similar dose over the posterior surface of the axilla a week later. The anterior area was treated again on April 6, giving 750 R, same factors; and the posterior area was treated on April 10, also giving 750 R. The anterior area was given a final treatment of 1050 R on June 8. Following this treatment the mass disappeared and has remained so to this date. On Oct. 19, 1928, a mass was noted in the supraclavicular region. This was treated with the same technic as above 1125 R on that date; a similar dose on Jan. 23, 1929; and a final treatment of 975 R on March 28, 1929. This patient is free from any evidence of recurrence at this date.

No effort is being made to quote statistics in this paper and it would be foolish to make any claims regarding the efficacy of a treatment based on the results obtained in 2 cases. These 2 cases show that it is possible to cause the complete disappearance of large cancerous masses by roentgen-ray treatment alone. Admitting that possibility, then duplication of such results may be inferred to be a technical rather than a theoretical problem. It seems reasonable to believe that as our experience in this type of case increases the results will steadily improve. In a general way satisfactory regression depends upon a full dose applied at the initial treatment. The quality of radiation should be such that all parts of the cancer receive sufficient radiation to produce an effect. If the initial dose is not given at one sitting, but divided up into fractional doses, the time required to give the full dose should not be more than 4 days and the dose should be augmented sufficiently to make up for the loss incident to the interval between treatments. If an initial full dose has been given and an involution in the cancer tissue started, it is vital to follow this up by subsequent treatment and not allow time for the growth to recover from the effects of the first treatment. This interval between treatments should not exceed 2 weeks. If subsequent treatment is given before the effect of the last treatment has disappeared it is necessary to compute the amount of dissipation which has taken place and to apply a dose which replaces the dissipated radiation. The successful treatment of deep seated cancer which cannot be destroyed by one treatment consists in bringing about involution by the initial treatment and continuing this process of involution by subsequent treatments applied at intervals so short that recovery cannot take place between treatments. This process must be continued until the cancer becomes inactive. It is not always possible to carry out this plan literally, but this should be the general plan of the treatment.

If such a plan is followed in advanced inoperable cases the result is often astonishing. While operable cases should be treated by surgery followed by radiation, inoperable cases may be greatly benefited by radiation and the treatment is well worth while and should always be given. As a matter of fact, any patient over age 65 with cancer of the breast has as good an expectancy of life with radiation treatment as she has with surgery, when all hazards are considered. Unfortunately, the term "inoperable" in cancer of the breast is too often considered as synonymous with "hopeless" and consequently the patients are treated in a half-hearted way. Patients who are inoperable because of distant metastasis will eventually succumb; but those in whom surgery is contraindicated because of other reasons, especially if they are of advanced age, may be kept going indefinitely until they pass away from natural causes.

PREOPERATIVE RADIATION

This treatment was advocated by R. H. Boggs about 1912. He was quite enthusiastic about it, but it has never come into general use. Pfahler has also recommended this treatment often, and more recently Lee states that in his experience it has improved his 5-year results. The object of this treatment is so to devitalize the cancer cells that they will be less likely to grow if they enter the circulation during the operation and are deposited at some distant spot. This is a very desirable achievement if it can be proved to follow such treatment. So far as I know there is no satisfactory evidence of such proof except statistics which may perhaps be misinterpreted. In the absence of such proof it would hardly seem justifiable to delay operation in order to give preoperative radiation. Personally, however, I believe that delay is not necessary in order to get what benefit may accrue from this treatment. It seems reasonable to infer that the action of radiation on tissues begins very soon after administration and that the so-called "radiation sickness" is the tangible evidence of the tissue changes which occur. If this is the case there would seem to be no reason to delay the operation after the patient recovers from the roentgen sickness, a matter of 2 or 3 days at most.

The technic to be preferred for preoperative radiation is the 200 kv. technic, giving a full dose over the breast, axilla, and supraclavicular region, using either $\frac{1}{2}$ or $\frac{3}{4}$ mm. copper filter. If operation is delayed for 2 or 3 weeks secondary roentgen-ray changes may take place in the tissues causing some embarrassment from oozing

and also hindering healing. These things do not happen if the operation is performed immediately. At least they have not been encountered in my experience. It was formerly thought that preoperative radiation caused fibrosis of the lymphatic channels draining the breast and thus lessened the likelihood of metastasis at operation. Naturally fibrosis of vessels requires extensive and comparatively long continued radiation, and to hold up an operation for this long drawn out process to take place hardly seems a rational procedure. If surgery is the proper procedure it should be carried out without delay. Any treatment which would necessarily postpone the operation for 2 or 3 months must be known to have definite value to justify its use. If operation is done immediately after, there should be no harm in administering preoperative treatment and it is possible that much good may be accomplished.

POSTOPERATIVE RADIATION

This treatment is applied in the hope that it will destroy any cancer cells that may be left after operation, either in the breast area, or in the adjoining axilla, or supraclavicular region. It is wise to include the mediastinum in this treatment also. I have been administering this treatment for a period of about 25 years. During this period there have been several waves of skepticism as to the value of the treatment. We are apparently in the midst of one now. The basis for this skepticism lies in the fact that it is impossible to prove benefit from the treatment except by comparative statistics and these are often conflicting. For instance, the statistics compiled by Harrington lead him to conclude that recurrences take place just as often in cases which receive postoperative treatment as in those which do not. On the other hand, Pfahler has found that postoperative radiation as applied by him produces $2\frac{1}{2}$ times as many recoveries as occur by operation alone. Undoubtedly different conclusions may be drawn even from the same set of statistics, but into this problem enters another factor that is of the first importance, namely, the manner in which the radiation is carried out. Too much emphasis cannot be laid upon the fact that it is the radiologist who cures patients and not the roentgen-ray machine. This fact is sometimes overlooked. The personal equation cannot be dismissed in this field any more than it can in surgery. For this reason one should hesitate to publish a specific technic to cure a certain ailment as it may be unsatisfactory if used by other radiologists. What usually happens is that the second radiologist modifies

the technic to suit his working conditions and the modification may or may not alter the result. Under any circumstances the radiologist finds out from experience what results he can produce in much the same manner that the golfer finds out with which clubs he can make the best shots.

The uncertain factor in postoperative radiation is that no one knows whether cancer is present or not when the treatment is instituted. The secret of success lies in the assumption that it is present and carrying out the treatment accordingly. A state of mind which looks upon this treatment as a routine procedure to be carried out because it is the thing to do is not conducive of any good results. The routine postoperative treatment should be carried out in the same way as it would be if visible recurrences were already present. It has been argued by opponents of this treatment that if a sufficient amount of radiation is applied to do any good, very definite injury to normal tissue follows and that it is wrong to subject the patient who may not have any cancer present to these injurious effects. This is not necessary if the treatment is properly carried out. The first case detailed, Mrs. H. M. H., received about the amount of treatment usually applied routinely to a postoperative case without visible recurrence. There was marked skin reaction immediately following the treatment, but now (2 years later) there is nothing to indicate that roentgen-ray treatment had been given. Yet the amount of treatment given was sufficient to destroy a cancerous mass as large as an orange. It is true that telangiectases may follow in any case in which erythema has been produced, but this does not seem an unreasonable hazard to take if the gravity of the situation is considered.

An unanswerable argument is that if a patient fails to develop recurrences after postoperative radiation, it may be because there was no cancer left after operation. This problem may be possible of solution by a comparison between a sufficiently large number of treated and untreated cases, but the investigation would need to be carried out in one clinic and under entirely unbiased circumstances, a situation with which I am not at the present time familiar.

The routine technic which I employ for postoperative radiation if no recurrence is present is as follows: The breast region on the involved side extending for a distance of about 2 inches beyond the midline toward the opposite breast is treated either as one area, or is subdivided into 2 areas. If one area is used the skin focus distance is 16 inches; if 2 areas the distance is 10 inches. The axilla is divided into 2 areas, an anterior and

a posterior one. The supraclavicular region is treated as one area. I have been unable to distinguish any difference in the results if the breast area is treated as a whole at 16-inch distance, or if it is subdivided and treated at 10-inch distance. It is necessary to subdivide the axilla as the entire area cannot be exposed with the patient in one position. Radiation of a quality produced by 135 kv. to treat the breast area and the axilla is indicated. Theoretically, this voltage should produce rays sufficiently penetrating to produce results in tissue no thicker than the chest wall. In practice, the case reported, Mrs. H. M. H., was treated with this voltage and a large mass situated in a large fat breast disappeared under the treatment. With the breast removed, a similar voltage should be adequate. There is an objection to the use of 200 kv. and copper filtration over the chest wall in routine treatment in that injury to the underlying lung is possible with this quality radiation; and if it is not necessary it is the part of wisdom to use the lower voltage. The higher voltage may be used in the axilla if one is careful to direct the rays away from the lung. I use it routinely to radiate the supraclavicular region for 2 reasons: First, there is no danger to underlying lung; and second, recurrences in this region are so resistant to treatment that radical measures are justifiable from the start. It is my habit to treat each area 3 or 4 times, starting with a mild erythema dose and applying sufficient radiation at each subsequent treatment to bring the effect up to what it was at the end of the initial treatment. Each area is exposed to the lower voltage every 10 days and the higher voltage every 2 weeks.

The effect produced by this treatment is that of 3 or 4 full erythema doses without actually giving this amount of radiation. To illustrate, the initial treatment is an erythema dose. At the end of 10 days, 60 per cent of an erythema dose is applied and this added to the 40 per cent which is still in the tissues produces the effect of another erythema dose. One may thus produce the effect of 4 erythema doses and apply only 2.8 doses. The effect on the cancer is much more favorable with the 280 per cent applied in this way than it would be by applying 4 erythema doses at intervals of 4 weeks between treatments, a technic in common use. The initial erythema dose should not be subdivided into several fractions to be applied at different sittings. The limit to this subdivision should be 2 treatments and the interval between these treatments not more than 48 hours. The effect of small repeated treatments on the tissues is certainly entirely different from 1 large one. Not only is such treatment ineffective in the destruction of

the cancer, but it is more apt to produce atrophy of normal tissues.

The efficacy of postoperative radiation may be judged by the number of subsequent recurrences. The appearance of later metastases could hardly be considered as evidence of ineffective treatment as the metastatic focus may have been present before the treatment was instituted. If the absence of subsequent recurrences is interpreted as proof of a perfect operation and the development of recurrences as evidence of failure in postoperative radiation, naturally one would have to consider the treatment as useless. With our present knowledge there is no way to tell whether cancer cells are still present in the breast area after operation. Consequently, there is no proof that radiation has been successful in cured cases. There is proof of failure in recurrent cases. This situation of "Heads I win, tails you lose" naturally puts postoperative radiation in a bad light and its use must be recommended more from a knowledge of the results in recurrent cases than from statistics.

Since addressing this Society in 1929 on this subject, I have applied postoperative treatment to 74 cases. Of this number 26 had recurrences before they were referred. Of the remaining 48 cases, 17 developed recurrences at a date subsequent to treatment.

RECURRENCES AND METASTASES

These are considered together, although their reaction to radiation and consequently the prognosis are quite different. Cutaneous and subcutaneous recurrences are usually sensitive to radiation and respond to a moderate amount of treatment. If they are neglected until they break down and ulcerate, treatment is apt to be useless. Cutaneous nodules may be treated with low voltages from 120 to 135 kv. and aluminum filtration with good results. Often a thin filter of 1 or 3 mm. gives better results than higher filtration. With these factors, apply an erythema dose every 2 weeks until the nodule disappears. The average small nodule of approximately a centimeter in diameter will require 4 or 5 such treatments. Where the recurrence is in the nature of a large, thick indurated area an inch or more across and from a half to one inch thick, it is best to use high voltage treatment at once, applying 1000 to 1100 R at the initial sitting using 200 kv. and $\frac{1}{2}$ mm. copper filter. Subsequent treatments should be given at intervals of 2 weeks, applying 500 to 600 R at each sitting until a total of about 3000 R has been given. I have seen a number of cases in which indurated recurrences

in the breast area or axilla have disappeared under this method of treatment. If it appears that a large amount of treatment will be necessary in a given case, in order to save the skin as much as possible, use a $\frac{1}{2}$ mm. copper for the first treatment and $\frac{3}{4}$ mm. copper for subsequent treatments, all other factors remaining the same. This technic is also used for metastases to the axilla or supraclavicular region. Naturally these do not respond as well as recurrences in the chest wall, as metastases are always more resistant than primary growths, and recurrences in the chest wall are really primary growths. Occasionally there is so much postoperative contraction of the axilla that recurrences in that location cannot be exposed to roentgen-ray except through the arm, because of inability to raise the arm. In these cases radium is very useful.

Distant metastases are practically always the forerunner of a fatal result. Occasionally by intensive radiation one may destroy a metastatic lesion in bone, but others always develop elsewhere and the patient finally succumbs. Treatment is indicated as it may prolong life and usually relieves pain, especially in metastases to the spine and pelvis. In these cases, although it is obvious that the treatment will be only palliative, the dosage should be as large as possible as it is only by such dosage that any relief will be obtained. I have never noticed any benefit from treating metastasis to the liver. Lung metastases sometimes respond remarkably well; often no benefit is seen from the treatment. These lesions are usually numerous and it is necessary to radiate a large part of or all the lung, or perhaps both lungs. Crossfire through 3 fields—anterior, posterior, and lateral—using 200 kv. and $\frac{3}{4}$ mm. copper filter. The total dosage from all fields should not total more than 90 per cent of an erythema dose as computed at any point in the lung. Do not repeat treatments to the lung fields sooner than 4 weeks and the usual interval is 6 weeks. Metastatic masses in the superior mediastinum may be treated more intensively.

The development of recurrences is always an ominous sign as they are so frequently followed in a short time by evidence of distant metastases. These metastases are usually not discovered until they are well developed and even if so fortunate as to eradicate them by skillful treatment, new ones develop in unexpected places until the patient succumbs.

Surgery and radiation have made very decided progress in the treatment of cancer of the breast, but so far nothing is of much avail in the treatment of the distant metastases.

TULAREMIA *

HARRY LEONARD BAER, M.D.,† PITTSBURGH

Out of almost total obscurity, tularemia, which is primarily a disease of rodents, has taken a place of major importance among the acute infectious diseases in man. Depending upon the locality of the observer, the mortality of tularemia has been estimated to be from 4 per cent to 10 per cent. Tularemia has been recognized in practically all the states of the union, excepting the northeastern states, and has been made a reportable disease.

Chapin and McCoy, in 1911, while investigating the plague among the rodents in California, County of Tulare (from which it derives its name), are credited to be the first to recognize the disease. A Dr. Pierce, in Utah recognized this disease as "deer fly fever" and antedated the experimental work of Chapin and McCoy. He also recognized the means of transference of this disease long before the etiologic agent had been noted. Simpson's investigations in 51 cases have brought forth clinical evidence that butchers and handlers of rabbits had recognized a "rabbit fever" for many years. Simpson, further investigating their serums for the agglutinins of *B. tularensis*, found them positive in some whose histories suggested tularemia infection 20 years previously. It can be readily seen that both by clinical evidence and corroboration by agglutination tests, tularemia as such had existed but was not recognized. Up to 1925, only 15 cases had been reported. In 1932, in the United States 905 cases were reported—Pennsylvania had 21 cases. In 1933, in Pennsylvania 69 cases were reported. The bulk of the cases reported were in the Middle West, in which it is considered to be endemic.

At present tularemia is recognized everywhere. In Japan, O'Hara's disease is probably tularemia. In Sweden, the oculo-glandular manifestation of the disease is known as Parinaud's disease. In recognition of the work done by Francis, it is also known in this country as Francis' disease.

The organism is a gram-negative, nonmotile, anaërobic, rod-shaped or coccoid, possibly encapsulated organism. Only recently has it been stained in the lung sections by Foshay, who used a saturated aqueous solution of Nile blue sulphate. The cultures used for growth are coagulated egg yolk or blood dextrose cystine agar. Recently Rhanny has evolved a medium which gives a luxuriant growth in 3 to 4 days. In

isolating the organism, tissue from man made into a saline suspension is inoculated into rabbits which die with the characteristic disease in 3 to 5 days as a rule. Culture media are then inoculated from the dead animal. Direct inoculation from man has also been reported. The inoculated animals, when they succumb, show gray, granular, caseation of the enlarged lymph glands with great numbers of small white foci or necrosis studded over the enlarged lungs, spleen, liver, and lymph glands. Cultures can be taken directly from the primary lesion, lymph glands and also, but rarely, directly from the blood stream.

The average clinical appearance of the disease following inoculation in humans is $3\frac{1}{2}$ days. From blood cultures, experimentally in animals, *B. tularensis* can be found from the third day on until the death of the animal. It has been shown that the bacillus, after the third or fourth day, has left the early punctured area and traveled by way of the lymphatics to the axillary gland.



FIG. 1.—Primary lesion—indolent painless ulcer having the appearance of a chancre 3 weeks after exposure.

Dissemination is thought to be chiefly through the lymphatics. It is also thought that dissemination can take place by the blood stream by means of a necrotizing focus encroaching a neighboring blood vessel. Cases of glandular and typhoid types without primary lesions are thought to occur by this method.

Man to man infection has been shown to occur, but it is quite rare. Francis, in 1928, regarded the disease as noncontagious. Although the initial investigation was done with wild rabbits, there has been an increasing dissemination of the disease among the other lower animals that live with or eat rabbits, namely, quail, tree squirrels, sage hens, opossums, ground hogs, muskrats, and skunks. Deer flies and wood ticks

* Read before the Allegheny County Medical Society, Jan. 22, 1934.

† From the Pittsburgh Skin and Cancer Foundation, Pittsburgh.

are the important animal-to-animal and animal-to-man transmitters of the disease. The wood tick is known to harbor the *B. tularensis* throughout the winter, and is capable of infecting sheep in the spring. The sheep and fur-bearing animals offer a source in their respective industries. The removal of hides of other animals for commercial purposes has been found to produce the disease. The rabbit tick has been found on game birds. The horse, cow, hog, fox, pigeon, domestic chicken and turkey do not appear to be susceptible to either the natural or experimental infection with *B. tularensis*.

The saliva of the cat and coyote, through a bite, has been known to produce the infection. Experimentally, the cat is thought to be mildly susceptible. Domestic rabbits raised in hatcheries are susceptible experimentally but are not afflicted with tularemia. Scratches from the cat and dog have produced the disease.

Warm rabbits have been thought by Thojtta to be more virulent than frozen animals. Francis states that frozen rabbits are infective up to 3 weeks, and not after.

Cases caused by the ingestion of insufficiently cooked rabbit meat have been reported.

In Pennsylvania the cases reported up to 1932 have been due to the infected cottontail rabbit shipped in from the West. In 1933 there has been reported in Pennsylvania 16 cases caused by the infestation of the local rabbits.

I have observed 9 cases in 3 years without any deaths. These cases were due to the handling of infected rabbits shipped in from Illinois, Kansas, and Missouri.



FIG. 2.—Skin test 6 hours later using a chemically killed suspension of *B. Tularensis*. An indurated papule with vesiculation. Marked erythema with acute exacerbation of constitutional symptoms. Agglutination test was not positive until 10 days later, 1: 80.

There are 4 clinical types:

1. The ulcero-glandular is the most frequently seen and shows a primary lesion in the skin with a local glandular enlargement.

2. In the oculo-glandular type, the primary lesion develops in the conjunctival sac with local glandular enlargement, and practically the same

constitutional symptoms as the ulcero-glandular type.

3. The glandular type shows no primary lesion, but does show enlargement of the local glands, with the same constitutional symptoms.

4. The typhoid type shows a persistent high fever resembling typhoid fever, and is quite difficult to diagnose, but by the process of elimination and being "tularemia conscious," and with the aid of the intracutaneous test followed by the agglutination test, the diagnosis can be confirmed.



FIG. 3.—Same patient as shown in Fig. 2, one week later. Erythema and scaling present slight induration still present.

The ulcero-glandular is the most frequent type noted and shows a primary lesion in the skin with enlargement of the glands draining from the site of the inoculation. The primary lesion at times is quite difficult to discern. In a fairly well developed case it is noted as a painless, as a rule, indolent nodule with a slight inflammatory areola surrounding it. It breaks down later leaving a central necrotic craterlike lesion with hard indurated borders. If this lesion becomes secondarily infected, it leaves a punched out, nonindurated ulcer with raised soft edges and clean granular base, discharging a seropurulent liquid. Healing takes place rapidly, leaving at times a healthy looking scar. By the time one sees the patient constitutional symptoms have developed. The onset will vary; in some cases the constitutional symptoms may pass unnoticed. In most cases the patient will have headache, chilliness, chills, fever, sweats, vomiting, backache, and prostration. The fever may have a septic range from 96° to 105° F.

The fever in tularemia has a peculiar sequence. It is present in all cases; there is an initial rise of the fever which lasts 2 to 3 days; there is then a remission for 1, 2, or 3 days, then a secondary rise to the original height with another remission, or else a gradual decline to normal. There is then a feeling of well being with the desire of the patient to resume his duties. The temperature phase of the disease lasts from 2 to 3 weeks. The development of the gland may occur all through the febrile stage or not make its appearance until the febrile stage is

over. Relapses of fever may occur even up to 6 months with varying degrees of symptoms.

Sweats are a characteristic accompaniment. They vary to such an extent as to remind one of malarial fever, lasting from several days to a week. The rise in temperature occurs either in the morning or evening. As soon as the natural immunity develops, the temperature drops to subnormal.

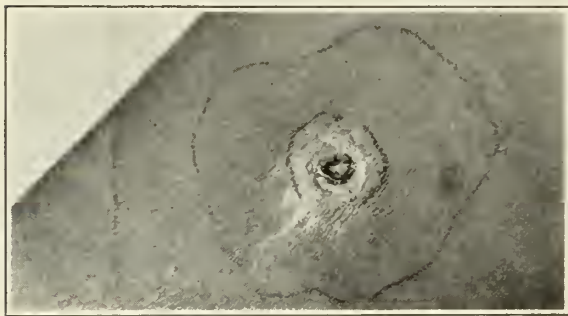


FIG. 4.—Diagnostic skin test 48 hours later with dermo-necrosis. Agglutination test positive, 1:360. First seen 6 weeks after infection. No lesion on finger. Primary adenopathy of axillary gland.

There is pain in the axillary glands. Lymph glands, in the usual locations as the dorsum of the hand, mid-forearm, region of the biceps, have proceeded to abscess formation. On examining the glands in the axilla, redness of the overlying skin is seen with or without lymphatic streaks on the extremity. There is tenderness on palpation. The size varies but the consistency is hard. In about half of the cases, the glands do not break down but remain hard, palpable, and tender for 2 to 3 months, gradually returning to normal. In the other half of the cases, the enlargement of the gland is progressive, pain persists, and one is justified, as soon as pointing is noticed, to lance the area. A serosanguineous liquid with a flocculent whitish material escapes. This drainage persists for several months. The odor is quite marked at times and is due practically to the admixture of sweat and secondary infection. The limiting indurated glandular area remains hard for months. Healing takes place in the due process of time, leaving very little, if any, scarring.

In certain cases lymph glands, other than regional, have been enlarged. Subcutaneous nodules simulating sporotrichosis have been noted in the forearm in some cases. Suppuration of glands can occur any time following the onset of the disease (up to 2 years).

SKIN MANIFESTATIONS

There is one definite skin lesion which seems to be constant—that is the primary lesion of the ulcero-nodular type. A wide variety of skin mani-

festations is noted and is not characteristic of the disease. The skin manifestations are probably of an allergic nature and are due to the toxin. The reactions occur as an individual idiosyncrasy and consist usually of a macular and maculopapular eruption with no definitely localized area. In 3 cases observed, acne types of lesions were noted on the face and back. (These were in men under age 30 whose histories revealed the presence of acne in adolescence.) Herpes of the lip was noted in 2 cases (this may be due to the usual reaction they always noted to any fever). Stomatitis was noted in one man. His dental hygiene was poor. He gave the history of having had "stomach ulcers" in his mouth frequently.

The convalescence of the disease is quite slow. There is a slight secondary anemia and malaise present in most cases. From an economic standpoint the return to work is usually delayed for about 2 or 3 months. The majority of these patients are ambitious and return to work too early. One must not overlook the possibility of the occurrence of a remission. It is advisable to allow full recuperation before permission is granted to return to work.

The blood picture is not characteristic.

COMPLICATIONS

Pulmonary complications head the list and are often diagnosed with difficulty. Clinical determination of pneumonia is very difficult. Pulmonic processes and tularemic areas in the lung cannot be distinguished.

Bear in mind the following tetrad in the diagnosis: 1. History of having dressed or dissected a rabbit or other animal associated with the rabbit, or having been bitten by a wood tick or a deer fly. (2). A primary lesion of the skin in the form of a papule followed by a persistent ulcer. (3). Persistent glandular enlargement in the region draining the primary lesion. (4). Fever lasting 2 or 3 weeks.

Having become "tularemia conscious" by the recognition of this tetrad, the clinician will prove his diagnosis by: (1). A positive blood serum agglutination test. This occurs in the second week of the illness. The agglutinins in the blood remain positive for many years. (2). By the intracutaneous test, using chemically killed suspension of the *B. tularensis*. This test, as recently suggested by Foshay, will betray the presence of tularemic infection from the second day up to the fifteenth month of the disease. The test is particularly useful during the first 12 days of the disease when agglutination tests are negative. Every suggestive history of ex-

posure to rabbits should have the test done. A positive test can be read 6 hours later. There is a marked local inflammatory reaction with activation of the systemic manifestations noted.

This disease has been erroneously diagnosed, first by the internist, as influenza, septic infection, typhoid fever, syphilis, primary adenopathy, and pneumonia; second, by pathologists as tuberculosis, on account of the enlarged lymph glands and the tuberculous architecture of the pathologic section; third, by dermatologists as sporotrichosis, on account of the subcutaneous nodules; and fourth, by serologists as undulant fever, because of the cross agglutination of the *Brucella melitensis* and *Brucella abortus*.



FIG. 5. Shows the same case as Fig. 4, with axillary glandular enlargement. Gland was incised. Made an uneventful recovery. An attempt was made to desensitize the patient with increasing dosage of the vaccine. Agglutinins still present in the blood, 1:80, one year later. Skin sensitivity was lessened.

TREATMENT

Prophylaxis is the keynote. In dressing wild rabbits—use rubber gloves and remember that fragments of bones can pierce rubber gloves; liberal use of soap and water to remove the blood after cleaning and touching the dead animals; thoroughly cook the food; avoid the rabbit that is not active; bring home the birds instead of the rabbit.

Be careful in the use of the rabbit foot for luck when it has been removed from a freshly killed rabbit.

The treatment is mostly symptomatic, with rest in bed, the forcing of liquids and the incision of glands if they show an area of fluctuation. The use of arsphenamines and the intravenous use of mercurochrome have had their advocates, but they have been shown to have no specific

curative value, nor have they prevented complications. I used neoarsphenamine daily for 2 weeks in 2 cases, quite early in the progress of the disease, without preventing the usual glandular complications and fever.

Foshay has recently used in 69 cases tularemia an anti-horse and anti-goat serum with favorable results. I have used the serum in 2 cases with favorable results clinically, and also feel that it had shortened the convalescence. A mild serum reaction occurred in one instance. The convalescence of both was marked with backache and myalgia. The prognosis of the case with the use of the serum may be judged by the desensitizing effect the serum has on the intradermal test. A good and rapid prognosis occurs when the repeated skin test is negative 3 to 4 days after the administration of the serum. A positive skin test following the use of the serum is indicative of a prolonged convalescence with increased glandular reaction and return of constitutional symptoms with other sequelae.

A vaccine for prophylactic and curative measures has been recently used successfully in animals, but it is too early to draw any conclusive opinion. Foshay has used a vaccine for prophylaxis in laboratory workers with success.

I have attempted to desensitize an individual who has had tularemia, to the chemically killed vaccine. The observation has been for almost a year. The agglutinins are still present in the blood although the skin sensitivity has been lessened. Passive transfer, according to the method of Prausnitz and Kustner, was attempted in 3 cases. No sensitized bodies were found.

It has been shown experimentally and also clinically that dissemination of the *B. tularensis* from the primary source takes place by the fourth day. Desjardins and others have shown that the roentgen ray is beneficial in infiltrating lesions. Recently I reported 2 cases of tularemia in which I used $\frac{1}{2}$ U. E. D. roentgen ray to the primary lesion located on the fingers prior to the fourth day of the disease. Although it is not conclusive, the process of tularemia was arrested in both cases. I have used the roentgen ray for the axillary glandular enlargements in other cases without any beneficial results.

CONCLUSION

Because of the ever increasing recognition of suspected individuals to "rabbit disease," an increase of tularemia has been noted. Tularemia is practically an all-American disease, as its recognition and study has been singularly done in this country. The intracutaneous test has been successfully used for diagnostic purposes and is

of value at least 2 weeks prior to the agglutination test. The antitularense horse and goat serum, as prepared by Foshay, promises to be of value. Desensitization and vaccination have been

offered by Foshay and Downs, but have not been tried sufficiently or long enough to make any definite comment as to their true value.

5050 Jenkins Arcade.

AUTOGRAFT

Report of a Case

FREDERIC BUSHONG, M.D., AND C. R. ELICKER, M.D., POTTSTOWN, PA.

Mrs. R. M., age 23, applied to Dr. Elicker, May 1, 1933, for relief from pain in right shoulder. There was history of a sprain in an automobile accident 8 years previously with subsequent moderate pain in right shoulder girdle for 2 years.

About 4 years ago she lifted a heavy weight and sustained a "sprain" at medial end of clavicle. There was continuous localized pain at this point, and also generalized pain in the right shoulder region ever since. Treatment for neuritis by physicians and for curvature of spine by chiropractors gave no relief. Roentgen-ray examination verified the diagnosis of recurrent dislocation of the medial end of the clavicle. On May 19, 1933, under general anesthesia the sternoclavicular joint which was very loose and disjointed was exposed, and also the medial end of the second rib. A hole was drilled through the clavicle and the rib, 1 cm. from

medial ends. Following the method of Gallie and Le-Mesurier, recently developed at Toronto, an autogenous fascia suture 25 cm. by 1 cm. was obtained from the fascia lata and strung through the bone holes. Putting the shoulder into shrug position to replace the clavicle snugly in the shallow sternal socket, the overlapped fascial suture was sutured with fine silk.

A roentgen-ray examination at 4 months shows the bones in perfectly good position. Palpation reveals the autograft ligament to be much thicker and stronger than when inserted. The old subjective symptoms of pain and limitation of function are gone and the patient is working in complete comfort.

Clavicular dislocations are not very common and this method of correction is not very old.

228 King Street.

CUTANEOUS PHOTO-PIGMENTATION AND COSMETICS

With Special Reference to Berlock Dermatitis

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Cutaneous photo-pigmentation is a normal phenomenon in many individuals. Its relationship to certain cosmetic preparations is not generally appreciated; pigmentation of this type requires special individualization from a diagnostic point of view.

Injuries to the skin from cosmetics are fairly common, probably because in recent years there has been a tremendous increase in their use, particularly creams, perfumes, and scented powders. Many of these contain essential oils and perhaps other substances which, when placed upon the skin become, on exposure to the actinic rays of the sun, cutaneous irritants calling forth in some (photopaths) mere reddening of the skin; in others both reddening and pigmentation, and in still others nothing but pigmentation of varying degree and extent which had perhaps been preceded by what has been termed "subclinical erythema" and been unobserved by the patient.

This may be the only visible disturbance when the patient presents herself—it is usually a female—with the complaint. It is generally known that many active drugs if used upon the skin have their stimulative or irritative properties enhanced if roentgen rays are used at the same time over the same area of their application. Pigmentation often results from the roentgen rays alone. Greater darkening occurs if certain chemicals or drugs are used on the skin simultaneously with such roentgen-ray exposures. That the same effects, both irritative and pigmentary, are produced by the chemical rays of the sun or artificial ultraviolet rays has been observed for a lesser number of substances among which may be noted crude coal tar and allied substances, eosin and eosin-containing compounds (some lip sticks contain eosin), perfumes, creams, and powders containing oil of bergamot, oil of cedar, vanillin, and perhaps other essential oils.

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The object of this article is to call general attention to this little known cause for cutaneous pigmentation particularly of the face and neck. It is more common than is generally supposed, although those interested in light therapy have been cognizant of the condition for a number of years. That many cases are not reported appears certain and this may be because they are not recognized or the inflammatory reaction and the pigmentation in particular, although always embarrassing, disappear in many spontaneously within several weeks to a month or at the most, in the prolonged cases, by the fall of the year since it is apt to be observed during the summer months.



FIG. 1.—Photo-pigmentation caused by cosmetics. Brownish-black diffuse pigmentation of forehead particularly over frontal bosses.

The observation of 3 patients (2 females and 1 male) with this type of pigmentation during the period of but one month impels this report.

The peculiar circumstances under which the pigmentation in the third patient (Case 1) developed was especially interesting. It appears likely that the pigmentation in many of these cases is ascribed to systemic disturbances—chloasma, liver spots—conditions in which, if systemic changes occur, such are not discoverable by the laboratory or other means at our disposal.

Freund, some 16 years ago, appears to have been the first to describe a curious pigmentation of the skin to which Rosenthal 8 years later

gave the name "berlock dermatitis." The term berlock was used because the pigmentation in his cases appeared as streaks and reminded him of the pendants of a necklace. Further reports since then have appeared in the foreign literature with but 2 reports in 1930 in the American literature by Paul Gross and Lewis Robinson and by Lane and Strauss. Since then it has from time to time been noted in American dermatologic society notes.

In all the reported cases the patients had been exposed for long periods to the sunlight after the application of eau-de-cologne or some other toilet water to the areas subsequently pigmented. Freund succeeded in reproducing the condition by separately applying cologne water and one of its ingredients, oil of bergamot, to the skin afterwards exposed to sunlight. Later, cases were reported in which the harmful agents were found to be perfumes which were subsequently found to contain oil of bergamot, oil of cedar, or vanillin. The eruption naturally appears on the cutaneous areas to which the applications have been made and in view of the accessory factor, the actinic rays of the sun, would be upon exposed points. Cases have been reported in which the eruption was observed on the face, neck, arms, chest, and shoulder. In one of our patients the eruption was limited to the fingers; and in another, over the anterior axillary areas and manubrium sterni. In most instances it is for the pigmentation that the patients come and for which they desire relief. It has been, however, shown by Freund and others that the pigmentation may be preceded by anything from a slight erythema to actual vesiculation.

PREDISPOSITION

Although not substantiated by the experimental studies of Szanto, it would seem as though a predisposition must be present, certainly in some. Creams, perfumes, and powders are so widely used that were this not so, many more cases would be observed. Szanto, however, following a series of exact tests, was able successfully to produce pigmentation following applications of alcoholic solutions of oil of bergamot in 18 out of 22 attempts. Unless a predisposing factor is recognized, it is difficult to reconcile his results with our own experiments as well as those by Gross and by Lane. In fact, in one of our cases (not reported) and in Lane's case, attempts to produce the pigmentation failed, indicating the transient nature of the predisposing factor in these cases. In 2 of our patients (Cases No. 1 and No. 2) on whom tests were carried out with the suspected powders or perfumes, no erythema or pigmentation developed.

EXPERIMENTAL

Two subjects were used—one who regularly reacts to sunlight by normal tanning of the skin and the other who “burns” but does not pigment. The second patient could be classified as a photopath since a few minutes in the bright sunlight is followed by the rapid development of a very pruritic erythema of the exposed surfaces. The patient has known this for years and as a consequence always avoids the sunlight. The first patient had been seen a year previously for a typical berlock dermatitis upon the neck. The history was characteristic—accidental application of perfume to the sides of her neck below the ears just before playing golf. There followed the development of dark red, brown, irregular spots on both these areas. The following experiments were conducted: (a) The Photopath: The application to the flexor surfaces of the forearms of a 10 per cent solution of oil of bergamot to the one forearm and the Chanel perfume to the other forearm. This was followed by 1-minute exposure to an air-cooled ultraviolet lamp at 12 inches distance (3 times closer than

normal erythema distance). Definite redness developed over both areas within 12 hours.

(b) The Photophile: A similar procedure was carried out on this patient but no redness or pigmentation developed in the skin to which the application had been made. The tests were repeated one week later with the same result although the light exposure was doubled. These experiments clearly indicate that predisposition plays a part in the production of berlock dermatitis. It is, however, possible that prolonged or more intense actinic radiation is necessary or that the degree of predisposition in a given individual varies from time to time.

REPORT OF CASES

CASE 1.—Mr. B., white male, age 28, presented himself, July 15, 1933, for relief for darkening of the skin of the forehead and sides of neck below the ears. On examination he was found to be an individual with dark complexion and definite pigmentary increase on the forehead particularly well marked upon the frontal bosses, with similar pigmentation on the neck on both sides stretching bandlike from the hair line posteriorly to a point beyond a line running down from the lobula of the ears. According to his history, the pigmentation



FIG. 2. (CASE 1) Similar pigmentation involving each side of neck below ears extending almost to hair line posteriorly and to within several inches of the midline of the neck anteriorly.

had become evident about May of the present year and was becoming increasingly so (fig. 1). Since he was in perfect physical health subjectively and objectively, an extraneous factor was believed to be the cause. Questioning revealed that for the past 10 months after shaving he had been using a new face powder known as No. 98 Footed Glass Powder Bowl, purchased in the 5 and 10 cent stores. According to the manufacturers, it is composed of a Canadian talc to which they had added a small amount of some essential oil (kind not revealed). In addition to this possible explanation for the pigmentation, the fact that his barber used a hair tonic at 2-week intervals had to be considered. The manufacturer's reply to any inquiry as to the contents of this hair tonic merely contained the statement that it contained no essential oils and that the barber may have refilled their container with an inferior product. In applying hair tonics, barbers generally manage to get some of it spread on the sides of the neck and on the forehead. The patient lives in Atlantic City and has had almost daily exposure to the sunlight after shaving and powdering his cheeks and face in general. That the pigmentation was exogenous appeared certain when, after 4 weeks abstaining from use of hair tonic and shaving powder plus the use of sodium thiosulphate solution, the pigmentation to a large extent had disappeared.

CASE 2.—A white female, age 17, suddenly developed slight redness of the skin in such widely scattered areas as on the neck below both ears, on the neck an inch or so above the sternum, on the right shoulder over the upper end of the scapula, and on the forearm. When examined the spots were already definitely pigmented although some redness was still visible. The spots were light brown, irregularly shaped, well defined against the surrounding healthy skin and flat and on the level with it. There were no subjective disturbances aside from the embarrassment of having them. It developed that she had used a new French perfume and had been in the habit of dabbing it on here and there. Several days previously she had gone out to play golf shortly after using the perfume and had observed the spots the following morning. After pointing out the probable cause of her trouble, the mother recalled that shortly before her visit to me, another member of her golf club had had the same thing but it was not possible to determine whether or not from the same perfume.

CASE 3.—A white female, age 27, presented herself because of a brownish pigmentation involving practically all the fingers and a portion of each hand. This pigmentation was of some 10 days' duration. The pa-

tient stated that it had appeared almost over night. Questioning revealed that at about the time the condition developed she had been at the seashore on a Sunday preceding and recalled that in lifting a bottle of perfume out of her handbag while on the beach, it had spilled over her hands. The pigmentation had been preceded by redness and she also recalled that all her trouble had developed the next day—that is on a Monday the day after returning from the shore.

DIAGNOSIS AND COMMENT

The condition under discussion is in reality a form of dermatitis venenata in which the irritating substance is a light-sensitive ingredient of perfume, toilet waters, creams, *etc.* The use of the term "cutaneous photo-pigmentation" is intended to describe a special type of dermatitis venenata. There are few substances, whether applied to the skin or ingested, which produce a characteristic, perhaps pathognomonic, skin eruption. Thus poison ivy as well as other plant dermatitis often produces a fairly characteristic picture. The cutaneous eruptions caused by bromides, coal tar products, and phenolphthalein are often characteristic. The condition berlock dermatitis is likewise, by its appearance and very often by its location, just as characteristic.

The diagnosis of cutaneous photo-pigmentation following irritation of the skin by a light-sensitive substance is usually easy and is based upon the more or less sudden appearance of painless lesions—at first dark red, changing to brownish; the peculiar shapes of the pigmented areas suggesting an artificial cause; the tendency to spontaneous disappearance as well as its greater incidence in the female and in the spring and summer; its location usually on the neck, especially in the region of the ears, or on the face; and a history of having used a perfumed cream, powder, or toilet water shortly before exposure to the sunlight.

1714 Pine Street.

COMMISSARY-FED CHILDREN IN EIGHT PENNSYLVANIA COMMUNITIES

Report of Studies

MARY RIGGS NOBLE, M.D.,* HARRISBURG

These studies were undertaken at the request of the Governor at the time when commissary feeding was in its experimental stage in this Commonwealth and it was of considerable moment to inquire whether such rationing could be

counted upon to insure growth and development of young children.

The model dietaries were compiled by experts and had the endorsement of physicians acting on a committee from The Medical Society of the State of Pennsylvania. In the preliminary report (PENNSYLVANIA MEDICAL JOURNAL, Jan-

* Chief, Preschool Division, Pennsylvania State Department of Health.

The number of children considered to be in good condition was increased from 1428 in the first examination to 1688 in the second. Those in fair condition decreased from 1793 to 1596; and those in poor condition decreased from 488 to 396. This would seem to indicate that 152 children moved up from less favorable conditions.

First examination 1428 in good condition
Second examination 1688 in good condition

First examination 1793 in fair condition
Second examination 1596 in fair condition

First examination . 1446 in satisfactory condition
Second examination 1664 in satisfactory condition

First examination . 890 were borderline cases
Second examination 825 were borderline cases

First examination . 771 were definitely under par
Second examination 556 were definitely under par

First examination . 175 were markedly malnourished
Second examination 203 were markedly malnourished

The number of children found to be in satisfactory condition on the first examination was 1446. This was increased to 1664 in the second examination. The two other groups, borderline

TABLE II.—*Showing Nutritional Status by Ages **

Ages	Satisfactory		Borderline		Under par		Markedly malnourished	
	1st	2nd	1st	2nd	1st	2nd	1st	2nd
Totals all ages	1446	1664	890	825	771	556	175	203
2 and 3 yr.—489	260	285	84	76	57	38	6	8
4 and 5 yr.—805	337	401	227	196	122	85	15	22
6 and 7 yr.—1048	359	425	253	237	251	188	62	75
8 and 9 yr.—1098	372	444	259	257	278	199	64	73
10 yr.—272	118	109	67	59	63	46	25	25

* One city group is omitted from this table.

First examination 488 in poor condition
Second examination 396 in poor condition

Table II shows the appraisal of the children according to their nutritional status.

The nutritional picture on the reverse of the history sheet (page 35) was intended to give

and under par, decreased respectively from 890 to 825 and from 771 to 556, but the number of markedly malnourished children increased from 175 to 203. Some borderline and under par children lost ground and fell into the markedly malnourished class while a few of the markedly

TABLE III.—*By Age Groups Showing Gain in Weight*

Ages	No. gaining	Lbs. gained	Av. gain	No. losing	Lbs. lost	Stationary
Totals all ages	3226	9127	2.8	332	378	149
2 and 3 yr.—489	326	1106	2.5	29	35	23
4 and 5 yr.—805	686	1712	2.5	78	79	41
6 and 7 yr.—1048	902	2554	2.8	103	113	40
8 and 9 yr.—1098	967	2986	3.0	93	116	38
10 yr.—272	235	769	3.2	29	35	7

full details on which the final judgment of the doctor could be based, placing each child in one of four groups, satisfactory, borderline, under par, or markedly malnourished.

The findings of this table may be summarized as follows:

malnourished had moved up into a more favorable classification.

Table III shows the gain and loss in weight. Of the total number of children, 3712, there were 3326 who gained an average of 2.8 pounds; 332 who lost 378 pounds, or an average of 1.1

TABLE IV.—*Showing Gain and Loss in Height by Age Groups**

Ages	No. growing	Gain in inches	Av. gain in inches	Stationary
Totals all ages.	3182	4312.0	1.4	22
2 and 3 yr.—453 .	451	760.0	1.6	2
4 and 5 yr.—719 .	715	1002.0	1.4	3
6 and 7 yr.—881 .	880	1178.5	1.3	4
8 and 9 yr.—916 .	910	1109.0	1.2	6
10 yr.—232	226	263.0	1.2	7

* One city group is omitted from this table.

pound per child. There were 149, or 4 per cent of the children, apparently remaining stationary in weight over the 6 months' period.

According to Table IV there were 3024 children whose records were sufficiently reliable to be included in studying the gain in height. Of this number 3182 children grew 4312 inches or an average of 1.4 inches per child. The youngest group made slightly greater gains than the rest. Twenty-two children made no gain in height.

There was great unevenness in the growth. A

Table V, every effort was made to judge the younger children according to recently accepted standards. The older children were classified with less difficulty according to the generally accepted silhouettes.

Less satisfaction can be taken in tabulated posture results as they seem to reflect a measure of uncertainty still among the examiners. The *A* group, for example, decreased. Class *A* was reserved by agreement for the very perfect child and the figures seem to indicate that the 2-and-3-year-olds lost out somewhat in maintaining good posture in the 6 months' period. The *D*'s, few in number anyway, 57, decreased to 18. The *C*'s also were fewer by 47 per cent, considerable improvement having taken place.

There were 2863 children rated as having *B* posture on the first examination and 3183, or 11.4 per cent, more in the second examination. This would seem to mean that the backsliders from the *A* group plus 17 and 294 respectively from the *C* and *D* groups were placed among the *B*'s on the second examination.

Table VI shows the large number of defects

TABLE V.—*Showing Posture by Age Groups in Two Examinations*

Ages	2 and 3 yr.		4 and 5 yr.		6 and 7 yr.		8 and 9 yr.		10 yr.		Totals	
	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd
Totals . . .	489	489	805	805	1048	1048	1098	1098	272	272	3712	3712
<i>A</i>	78	64	34	27	12	19	20	23	3	4	147	137
<i>B</i>	359	411	664	723	816	908	821	913	203	228	2863	3183
<i>C</i>	47	8	100	45	201	103	223	146	57	32	628	334
<i>D</i>	1	1	5	1	17	7	27	6	7	3	57	18
Unstated .	4	5	2	9	2	11	7	10	2	5	17	40

few of the children made surprising gains: 6 children grew 5 inches or more; 7 grew 4 inches; 131 grew 3 inches; and 873 grew 2 inches.

In appraising the posture of the children,

found, and in spite of the fact that follow-up work was done to secure defect correction in a fair number of places, the findings on the second examination showed a general increase in

TABLE VI.—*Showing Defects by Age Groups*

Ages	Eyes		Teeth		Tonsils		Neck glands		Thyroid		Heart		Lungs	
	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd
Totals all ages	530	589	2459	2487	2567	2596	2331	2501	653	743	361	357	163	111
2 and 3 yr. . . .	33	47	126	134	316	335	223	260	12	11	42	44	27	12
4 and 5 yr. . . .	81	85	441	455	583	599	488	529	72	78	85	93	29	21
6 and 7 yr. . . .	159	165	761	767	748	741	717	766	196	223	112	106	49	38
8 and 9 yr. . . .	200	236	915	915	744	747	733	769	290	340	100	91	46	28
10 yr.	57	56	216	216	176	174	170	177	83	91	22	23	12	12

CHILD HEALTH CONFERENCE

For Children 2 to 10 Years

Reg. No.

County

History

DISEASES

Name	P. O.	Measles
Street	Street	Mumps
Parent or Guardian	Street	Scarlet Fever
Nationality of Father	Street	Diphtheria
Family Physician: Name	Street	Whooping Cough
Address	Street	Chicken Pox
Date of Birth	Sleep	Pneumonia
Breast Fed	Bathing	Colds
How long	Bowels	Earaches
Bottle Fed	Fresh Air	Dis. Ears
Vaccination	Diet	Sore Throats
T. A. T.		Rheumatism
		(Growing Pains)
		Others

HABITS

Physical Examinations

	1st Exam.	2nd Exam.	3rd Exam.	Remarks
Date				
Age				
Height				
Weight				
Ears				
Eyes (externals only)				
Teeth: Clean				
Cavities				
6-year Molar				
Tonsils				
Breathing				
Neck Glands				
Thyroid				
Heart				
Lungs				
Abdomen				
Hernia: Umbilical				
Inguinal				
Skin				
Genitalia				
Posture				
Orthop. Defects				
Gen. Condition: Poor				
Fair				
Good				
Refer for treatment				

Signed.....M.D., 1st Exam.

Signed.....M.D., 2nd Exam.

Signed.....M.D., 3rd Exam.

Malnutrition Picture: Check the Signs Found

	1st	2nd	3rd	Remarks
Dates				
Pallor: skin—muc. memb.				
Subcutaneous fat: good				
fair				
poor				
Musculature: flabby				
firm				
Posture: flat chest				
prominent abdomen				
round shoulders				
Evidence of rickets: wrists				
bosses				
pigeon breast				
Old..... Harrison's groove				
Current..... rosary				
bow legs: femur				
tibia				
knock-knees				
Evidence of fatigue: facies				
circles under eyes				
posture				
listless				
irritable				
lacking concentration				
Finicky about food				
Degree of malnutrition shown: not quite normal				
moderately under par				
markedly malnour-				
ished				
Diet notes: milk				
fresh veg. or fruit				
C. L. O.				

practically all physical handicaps as the following summary shows:

	1st	2d
Eye defects	530	589
Teeth decay	2459	2487
Faulty tonsils	2567	2596
Enlarged neck glands	2331	2501
Enlarged thyroid	653	743
Heart defects	361	357
Lung defects	163	111
Total	9064	9384

The information taken from all the histories, 3712, was discouraging with regard to protective measures. Of the 1294 children under school age only 10 per cent had been vaccinated against smallpox. This is a reprehensible showing and speaks loudly for the need of education concerning the value of early vaccination.

Of the entire group only 1227 had been protected against diphtheria and of those under school age only 176, or 13.6 per cent had been

so protected. This also is a most regrettable showing.

The group of children comprising the material for this study, while it was much smaller than it had been hoped might be secured, was yet miscellaneous chosen from widely separated parts of the State, with a mixture of American children with Italian, Austrian, Russian, Polish, Slavic, and others. It gives a reasonably well-defined outline of the physical conditions of families on relief who were being given, over most of the six months' period, a generous allowance of well chosen foodstuffs with milk, cod liver oil, and either orange or tomato juice, and other absolutely essential items supplied especially for the younger children.

That the study settles no question as to the "adequacy" for growth and development is obvious. It helps, however, to confirm the results of similar studies elsewhere and especially does it emphasize how much more needs to be done in health supervision in our towns and cities.

State Department of Health.

TRAUMATIC NEUROSIS AND THE COMPENSATION LAW

With the advent of the Compensation Act, the number of patients suffering from functional disturbances following trauma has mounted.

An examination of the production of the so-called traumatic neurosis seems quite germane in view of suggested alterations for the betterment of our present Workmen's Compensation Act.

Neurosis is specifically defined as "a functional disturbance of the nervous system, or the inability of the individual comfortably to adjust himself to his environment by reason of subjective physical or mental symptoms."

The head injury problem is, by natural association, brought closely into this consideration, although by no means are all traumatic neuroses associated with definitely known head injuries.

Without burdening the reader with the controversies which exist over the postconcussional state, or the speculations as to lesions too subtle for recognition, it requires that we examine into that group of persons without demonstrable injury to the nervous system who have failed to adjust themselves by reason of the so-called traumatic neurosis.

In passing, it is well to say that the clear-cut postconcussional state is a definite entity, and it is the borderline case which most frequently is the cause for expensive and time-consuming examinations and litigations.

The suggestion of Dr. L. K. Ferguson, that if functional conditions are admitted the patient be paid his lump sum, is one which is of keen interest to those who have given special study to nervous reactions. There

is no doubt that the continuation of such individuals on compensation for long periods of time has a tendency to keep alive nervous symptoms and produce habit reactions which are more expensive to the injured and to those liable for his compensation.

The fair-minded neurologist must admit that a given percentage of neuroses do not respond to the settlement of litigation. An overwhelmingly large percentage of them do, and for this reason a trial of this suggestion (lump settlement) would seem one worth full consideration.

A traumatic neurosis depends (1) upon the constitution of the individual and his basic nervous equipment; (2) the environment and conditions under which the trauma is received, and, of course, the degree and nature of the trauma; and (3) the incentive for the individual to recover. These factors are crudely stated, and of course a neurologist or one who intensively studies this subject would regard them as extremely superficial. Nevertheless, it has been the experience of the writer that many individuals who should be restored to comfort and freedom from subjective symptoms have been receiving more on compensation than they could earn were they able to carry on with their work. This has resulted in the persistence of symptoms as a natural psychologic response to a situation.

It, therefore, seems that if our law could be so written as to permit of an estimate as to recovery time and the closing of cases in which functional symptoms alone are present, it would result in something which would be of benefit to the injured, to the employer, and for relief to the physician.—*Editorial, Pittsburgh Medical Bulletin*, June 30, 1934.

EDITORIALS

MR. LESTER H. PERRY

The New Managing Editor and Manager of Sessions and Exhibits

It was with keen regret that the Board of Trustees of The Medical Society of the State of Pennsylvania accepted the resignation tendered by Mrs. Mary A. Yerger from her association with the State Society, to become effective Oct. 8, 1934. Mrs. Yerger has never faltered in any of the activities passing through the Harrisburg office and has given her best to all its endeavors. She has left an indelible imprint on the PENNSYLVANIA MEDICAL JOURNAL, and did much to keep the technical exhibits going to the fullest extent and maintain the normal function of the Annual Sessions with the least amount of friction, all of which has meant much to the State Society. She was devoted to the activities of the Woman's Auxiliary of the State Society, and Woman's Auxiliaries of the component county medical societies, ever having their best interests at heart.

We desire to extend to Mrs. Yerger our appreciation for her loyalty and devotion to the trust which she assumed, and to extend best wishes for her new undertaking in the position which she has accepted, manager and managing editor of the publications of the Arizona High-line Reclamation Association.

The Board of Trustees have elected Mr. Lester H. Perry to fill the vacancy caused by the resignation of Mrs. Yerger.

The position which Mr. Perry assumes has always been filled by a woman incumbent. The Board of Trustees are of the opinion that possibly a man in this position may broaden the scope of the duties of the Harrisburg office by extension of contacts, more especially in legislative halls on Capitol Hill. Then too, he will be qualified to take over the responsibilities of certain details of their duties that not infrequently require the presence in Harrisburg of the chairmen of some of the standing Committees, more especially the Committee on Public Health Legislation.

Mr. Perry was graduated from the University of Pittsburgh, 1925, receiving the degree of A.B. For the past four years he has been associated with the Allegheny County Medical Society in a secretarial position. He was instructor of English and Social Science in McKees Rocks High School, 1925 to 1927; director of Housing and

Employment, University of Pittsburgh, 1927-1931; and associated with the Allegheny County Medical Society, 1931-1934.

During the time of his association with the latter organization, Mr. Perry was an integral factor in its divers activities, and acquired a basic knowledge of many fields of organized medicine and its allied interests. It seemed fitting to the Board of Trustees that Mr. Perry should be accorded recognition and advanced to the more extensive vineyard of the State Society.

We beg to extend best wishes to Mr. Perry in his new field of endeavor.

EXAMINATION OF ALLEGED CRIMINALS BY PSYCHIATRISTS

It would appear from an editorial in the *New England Journal of Medicine* that the law providing for the examination of alleged criminals by psychiatrists is to be tested, as it were, in cases which will soon be tried. It would, also, appear that Dr. Briggs, the advocate of the law, as well as Dr. Holt, superintendent of the Medfield State Hospital for the Insane, have been appointed by the court to examine certain prisoners who will soon be tried. It again appears that Dr. Abraham Myerson had previously examined one of the defendants and that he had been permitted to be present during the examination conducted by Drs. Briggs and Holt.

The New England Journal of Medicine further states: "Dr. Myerson's standing gives promise of no likelihood of unethical behavior, but if men of less experience participate in the court procedures, the attitude of the courts and the behavior of the doctors will be watched with interest. It is not at all probable that, after these years of dealing with criminals under the present law relating to the psychiatric study of defendants, the present system will be found to be defective; because lawyers of standing have not found reason for attacking it and the feeling seems to exist that justice has been promoted. Massachusetts has, thereby, been accredited by other states as having found a better and more dignified way of using expert testimony than is in vogue elsewhere."

Inasmuch as the law providing for the examination of alleged criminals by a psychiatrist passed by the Legislature of Massachusetts in 1921 has seemed to be the best law thus far in

dealing with examination of alleged criminals by a psychiatrist and has never been contested before in Massachusetts, it would be most unfortunate if the members of the legal profession in Massachusetts saw fit to contest or change this law except that they have something more constructive to offer.

WILLIAM CAMPBELL POSEY, A.B., M.D.

Dr. William Campbell Posey, of Radnor, Pa., who formerly conducted an office in Philadelphia, died suddenly from cerebral hemorrhage on board the Steamship Rex, in the harbor at Naples, Italy, on Sept. 5, 1934, aged 66. Dr. Posey retired from practice several years ago.

Dr. Posey was born in Philadelphia, July 5, 1866, a son of the late Dr. David Root Posey and Emily Jewell Campbell Posey. He received his early education in the Episcopal Academy, Philadelphia, and was graduated from the College Department of the University of Pennsylvania in 1886, receiving the degree of A.B., and in 1889 was graduated from the School of Medicine of the University of Pennsylvania. While at college Dr. Posey was active in athletics and was a member of the football team. Upon graduation from medical school he served a one-year internship in the Presbyterian Hospital, Philadelphia. The next two years he spent abroad studying ophthalmology in Berlin, Göttingen, London, and Paris, returning to Philadelphia in 1892 to take up the practice of ophthalmology.

In December, 1910, he was married to Miss Hadassah Hamilton Felton.

Dr. Posey was professor of ophthalmology in the Philadelphia Polyclinic Hospital, and for many years surgeon to the Wills Eye Hospital, the Howard Hospital, and the Children's Hospital. He was a member of his county and State medical societies, and was the first chairman of the Commission on Conservation of Vision, appointed by the State Society; a Fellow of the American Medical Association, serving as chairman of the Section on Ophthalmology in 1910; and a Fellow of the American College of Surgeons. He was also a Fellow of the College of Physicians, of Philadelphia, of which organization he was president at the time of his death; a member of the American Ophthalmological Society, serving as president in 1929; member of the American Academy of Ophthalmology and Otolaryngology, and American Board of Ophthalmology. He was an extensive contributor to the ophthalmic literature, and in

addition was coauthor of a treatise on *Diseases of the Eye, Nose, Throat, and Ear*; edited the sixth American edition of Nettleship's *Diseases of the Eye* and was author of the book on *Hypoglycemia of the Eye*.

Dr. Posey was a member of several clubs, and also Phi Kappa Psi fraternity, and the Sons of the American Revolution.

Preëminently a specialist, Dr. Posey gave to his work something far above the technical proficiency of the specialist.

Dr. Posey is survived by his widow and two daughters, who were with him at the time of his death.

THE PRESIDENT'S MESSAGE TO THE PHILADELPHIA COUNTY MEDICAL SOCIETY

Dr. Seth A. Brumm in assuming the office of president of The Philadelphia County Medical Society, Sept. 12, 1934, at a time when the medical profession is confronted with many unprecedented problems of local, State, and national import, deemed it obligatory to make certain recommendations of policy for consideration.

The following is an abstract of the recommendations made which may contain some constructive ideas for other county medical societies:

1. The higher and continued education of the physician conducted principally through the programs rendered at the scientific meetings and at postgraduate seminars, and through the newer books and periodicals contained in the library of the society.

2. The adherence to the principles of organized medicine which are embodied in the *Principles of Ethics* of the American Medical Association and the loyal co-operation of the county society with medical organizations as embodied in The Medical Society of the State of Pennsylvania and the American Medical Association, of which all county medical societies are component parts.

3. The protection of the rights and interests of those engaged in the practice of medicine.

4. The fostering of the civic relation which involves that civic responsibility by which the public shall benefit by the activities of the Society.

Organized Medicine

The adherence to the principles of organized medicine and the loyalty of the county society to The Medical Society of the State of Pennsylvania and to the American Medical Association is a matter of proud record. In these times of financial stress when, undoubtedly, avenues of revenue are open to physicians if they would but forget the principles of medical ethics, the medical profession in Philadelphia has stood wonderfully steadfast.

Protection of the Medical Profession

The protection of the rights and interests of those engaged in the practice of medicine is perhaps the paramount issue before the medical profession today. In coöperation with the American Medical Association it is our duty to uphold the ten principles adopted by the House of Delegates of the American Medical Association.

tion at its eighty-fifth annual session held in June, 1934. They are a guide to the medical profession in meeting the problems of medical service throughout the United States.

The vigorous national policy of the American Medical Association must be followed by equally vigorous and intelligent economic policies by every State Society, and the policies of the State Societies in turn must be supported and augmented by vigorous County Medical Society programs.

He attended the recent state-wide Conference held at Harrisburg under the auspices of The Medical Society of the State of Pennsylvania to consider the problems of Public Relations, Public Health Legislation, and Medical Economics. He considers the Conference was an impressive reaction to the invitation to attend and a fine demonstration of the thoroughly aroused interest in these problems which are so essential to the present-day welfare of the physician.

As every county medical society has to deal with many local problems, in addition to those of state and national character, problems which are important to the immediate welfare of the physicians practicing in that county, and to their patients, he stressed the continuance in Philadelphia County of the policies already adopted, and strongly advised that these findings continue to be the basis for the activities of the Philadelphia County Society along the lines of medical economics; that they be augmented and from time to time adapted to any changing conditions which may occur.

He urged a closer coöperation between the medical profession and the lay health agencies of Philadelphia, believing that the time has come when these agencies should be properly coördinated in order that their activities may be always intelligently directed by reason of the medical profession acting in an advisory capacity, and with the added thought that all medical activities in Philadelphia should be and always remain under the jurisdiction of the medical profession.

Civic Relation

The civic relation of a county society involves primarily the reflection of the modern methods of medical practice in the treatment of all patients. This can be achieved only through the higher and continued education of the physician, by attendance on the scientific meetings and postgraduate seminars.

The civic relation also involves close coöperation between the medical profession and the department of Public Health of Philadelphia. This coöperation to be effective must be along intelligent lines and must be a mutual coöperation.

The civic relation further involves the treatment of indigent patients at hospital clinics, which should be given as thoroughly as in private practice and as economically as is consistent with good practice, in order that the money of the taxpayer used for this purpose shall be efficiently administered. In this connection it is important that the staffs of hospitals shall continually guard the medical and surgical practice from outside interference in order that the civic relation between the medical profession and the public shall remain at all times above reproach.

STATE BOARD EXAMINATION

The following questions were submitted by the State Board of Medical Education and Licensure at the examination conducted July 10 to 12, 1934.

Medical and Surgical

Physiology, Pathology, Bacteriology, and Physiologic Chemistry

1. Discuss briefly the physiology of respiration.
2. List the enzymes concerned in protein digestion; in carbohydrate digestion. Where does each act?
3. Show by diagrams the refractive power of the eye in hyperopia, and also in myopia.
4. Differentiate sarcoma and carcinoma in all their various aspects.
5. Give causes for and explain physiologic alterations in the phenomenon known as "acidosis."
6. Outline the clinical values that may appear from (a) the sedimentation test; (b) a differential leukocyte count.
7. Show by drawing the composition of a neuron. State briefly the nature of the end-organ in each of the special senses.
8. Name the bacteria against the activities of which immunity is possible, and indicate how it is attained in each case.
9. Describe the typical lesion produced by the tubercle bacillus, the Klebs-Löffler bacillus, the typhoid bacillus. How is each of these bacilli identified?
10. What pathologic condition is apt to underlie (a) acute cardiac dilatation? (b) facial palsy? (c) aphonia?

Diagnosis, Symptomatology, Medical Jurisprudence, and Toxicology

1. How would you determine whether a dead infant had ever lived?
2. Describe the symptoms and physical signs of Lænnec's (portal) cirrhosis of the liver in its advanced stages.
3. In a patient with hemiplegia, what features would aid you in differentiating cerebral hemorrhage, thrombosis, and embolism?
4. Discuss the symptoms of coronary artery thrombosis. Describe the acute attack and the interim features.
5. Describe the edema of nephritis.
6. Discuss the significance of jaundice in diagnosis.
7. Describe the symptoms and physical signs which may be caused by essential arterial hypertension.
8. Define: (a) vesicular breathing; (b) bronchial breathing; (c) bronchovesicular breathing; (d) amphoric breathing. State their significance in diagnosis.
9. Contrast tuberculosis in children with the disease as it occurs in adults.
10. What evidence is necessary (a) to suspect and (b) to establish the diagnosis of carcinoma of the stomach?

Gynecology and Obstetrics

1. Discuss acute and chronic nephritis in pregnancy.
2. Discuss the possible complications resulting from myoma of the uterus during pregnancy.
3. A woman 3 months' pregnant states she has introduced a rubber catheter into her uterus 3 days previously and began to bleed within 24 hours. When seen on the third day, she presents a temperature of 103° F., and the bleeding simulates a menstrual period. What course would you pursue?
4. What are the reasons for prenatal care in pregnancy? Outline the procedures which insure adequate care.

5. Discuss the immediate and remote effects of laceration of the cervix.

6. What are the probable causes of hemorrhage of the pregnant uterus at the eighth month? Outline treatment for any one cause.

7. Why is fetal mortality higher in breech presentation than in vertex presentation? Discuss means for decreasing this mortality.

8. Describe the ligaments of the uterus. What part do they play in maintaining the organ in its normal position? What part do they fulfil in the operation for prolapsus of the uterus?

9. Discuss the use and abuse of pituitrin in obstetric practice.

10. When is internal podalic version the operation of choice for delivery? Describe the technic of the same.

Anatomy and Surgery

1. Discuss subdural intracranial hemorrhage (non-traumatic) and outline its surgical treatment.

2. Give a complete anatomic description of the pancreas; give the functional purpose of the several types of tissue found histologically, and the changes in the organ as a whole which result from inflammation.

3. Describe the surgical management of a compound, comminuted, infected fracture of the middle third of the tibia.

4. Describe the important symptoms and physical signs found in a patient who has a right-sided cerebellopontile angle tumor.

5. Discuss the indications for and the relative value of spinal, rectal, and inhalation (ether) anesthesia. Discuss the use of barbiturates in surgical anesthesia.

6. Discuss the directions of movement permitted in the several regions of the spinal column; also, the treatment of a crushing injury to any one particular vertebra.

7. A man 65 years old who, during the past 2 years has had difficulty in passing his urine, is seen because he is vomiting and slightly irrational. What examination would you make? How would you treat him?

8. Outline the history of a patient suffering from so-called chronic appendicitis, and stress the points that in your opinion would justify operation.

9. Describe 6 varieties of symptomatic gangrene due to constitutional debility. Omit the treatment.

10. Define erysipelas and give the etiology, the pathology, the diagnosis, the prognosis and a modern treatment for a case of malignant erysipelas.

Practice, Materia Medica, Therapeutics, Hygiene and Preventive Medicine

1. Discuss acute yellow atrophy of the liver, especially in respect to its recent increased frequency of occurrence.

2. Discuss aortic regurgitation, noting the salient points of variance in this affection as contrasted with other valvular cardiac affections. Outline the hygienic and medical treatment.

3. What hygienic and therapeutic measures should be instituted in a case of chronic hypotension?

4. Outline the diagnosis and the treatment of a case of tetany, as occurring (a) in a child; (b) in an adult.

5. Outline the dietetic, the hygienic, and the therapeutic treatment in 3 cases of faulty nutrition, arising from different causes as applied to each variety.

6. Name the official preparations of cuprum, arsenicum, and argentum. Do not abbreviate. Give the dosage of each form of the drugs you mention.

7. What preventive measures must be instituted where cases of disease are known to exist that are the direct result of infection from rodents, from insects, from cestodes? Cite examples of each.

8. Discuss the therapeutic uses of atropine, strychnine, guaiacol, and theocin. Illustrate.

9. Outline the treatment in detail for a condition of delirium as it occurs (a) in acute alcoholism; (b) in typhoid fever; (c) in uremia.

10. When is a patient out of danger after attacks of the following diseases: (a) acute articular rheumatism? (b) typhoid fever? (c) diphtheria? (d) pneumonia? What are the salient points upon which you construct your thesis?

INTERNATIONAL ASSEMBLY OF THE INTER-STATE POSTGRADUATE MEDICAL ASSOCIATION OF NORTH AMERICA

The first International Assembly of the Inter-State Postgraduate Medical Association of North America to be held east of the Alleghenies is to take place in the Municipal Auditorium, 34th Street below Spruce Street, Philadelphia, Pa., Nov. 5 to 9, 1934, with pre-assembly clinics on Nov. 3, and post-assembly clinics on Nov. 10, in the Philadelphia Hospitals.

The Inter-State Postgraduate Medical Association was organized at Freeport, Ill., Sept. 26, 1916, primarily as a three-State organization (Illinois, Iowa, and Wisconsin). Its rapid development as a postgraduate institution soon gave the organization a national and international reputation and it was found advisable for the best interest of the medical profession not to confine the membership to that of the three States, but to extend it and the work of the organization to that of the surrounding States and finally to that of the entire United States and Canada, and through its foreign department, to different countries of the world.

The organization is purely a postgraduate medical association. It exercises no political nor legislative duties. Its object is to give to the medical profession the very latest and best there is to be had in medical science in the most practical and beneficial manner; therefore, it is the aim of the international assemblies to present to the profession the approved advancements of medical science and research, not unmindful of the practical side of medical study. To this end diagnostic clinics, orations, symposia, and discussions are offered by the leading teachers and clinicians, most of whom are members of faculties or connected with the outstanding medical universities.

In the words of Dr. William J. Mayo, "The Inter-State Postgraduate Assembly is composed of the rank and file of the medical profession who are in good standing in their State or Provincial Societies. Its members are practitioners who come in direct contact with the people, and what they learn therefore has immediate application."

Through the combined efforts of the medical profession of Philadelphia, which is noted for its high medical standing and great institutions of medical education, a stage is being set for a most wonderful medical Assembly, which is bound to contribute much valuable scientific and clinical knowledge to the medical profession of North America. The program has been carefully arranged to meet the demands of the general practitioner, as well as the specialist. Extreme care has been given in the selection of the contributors and the subjects of their contributions.

The Philadelphia County Medical Society will be host to the Assembly and has arranged an excellent list of committees that will function throughout the Assembly. A most hearty invitation is extended to all members of the profession who are in good standing in their State or Provincial Societies, to be present and enjoy the hospitality of Philadelphia, "The City of Brotherly Love."

The aggressive and up-to-date Convention Bureau of Philadelphia is coöperating in every way.

The following is the program.

Monday, November 5

8:00 a. m.

Diagnostic Clinic: "Peptic Ulcer."

EDWARD J. KLOPP, professor of surgery, Jefferson Medical College.

Diagnostic Clinic: "Tuberculosis of the Genito-Urinary Tract."

HUGH H. YOUNG, professor of urology, Johns Hopkins University School of Medicine.

Diagnostic Clinic: "Diagnosis and Treatment of Myxedema."

CYRUS C. STURGIS, professor of medicine, University of Michigan Medical School.

Intermission for Review of Exhibits

Diagnostic Clinic: "Complications of Pregnancy."

JOHN R. FRASER, professor of obstetrics and gynecology, McGill University Faculty of Medicine.

Diagnostic Clinic: "Hoarseness—Differential Diagnosis of the Manifold Diseases Accompanied by this Symptom."

(A) Chalk Demonstration of Pathologic Mechanism of Hoarseness.

CHEVALIER JACKSON, professor of bronchoscopy and esophagoscopy, Temple University School of Medicine.

(B) Lantern Slide Demonstration of Clinical Cases. CHEVALIER L. JACKSON, professor of clinical bronchoscopy and esophagoscopy, Temple University School of Medicine.

1:00 p. m.

Diagnostic Clinic: "Varieties of Goiter and Their Management."

FRANK H. LAHEY, director of surgery in the Lahey Clinic.

Address: "The Treatment of Chronic Constipation."

FREDERICK J. KALTEYER, clinical professor of medicine, Jefferson Medical College.

Address: "Postoperative Complication."

ELLIOTT C. CUTLER, professor of surgery, Harvard University Medical School.

Intermission for Review of Exhibits

Address: "The Roentgen-ray Diagnosis of Various Pathological Conditions of the Small Intestine with Special Reference to Postoperative and Postinflammatory Conditions."

JAMES T. CASE, professor of roentgenology, Northwestern University Medical School.

Address: "The Value of Roentgen-ray Therapy in Acute and Chronic Infection."

WILLIS F. MANGES, professor of roentgenology, Jefferson Medical College.

Address: "Concerning the Recognition of Certain Symptoms and External Ocular Signs Referable to General Diseases."

THOMAS B. HOLLOWAY, professor of ophthalmology, University of Pennsylvania, School of Medicine.

7:00 p. m.

Address: "The Surgical Treatment of Tumors of the Suprarenal Gland."

WALTMAN WALTERS, associate professor of surgery, University of Minnesota Graduate School of Medicine.

Address: "New Method of Ventriculography through the Vault of the Orbit."

"Final Recovery of the Facial Spasm after Plastic Reduction of Nervous Fibers."

A. M. DOGLIOTTI, professor of surgical diagnostic, Royal University of Torino.

Address: "Qualitative Changes in the Neutrophilic Leukocytes"; Illustrated with Natural Color Photomicrographs. (10 min.)

RUSSELL L. HADEN, chief of the medical division, Cleveland Clinic.

Address: "Certain Problems Presented by the Adolescent Period."

WILLIAM PALMER LUCAS, clinical professor of pediatrics, University of California Medical School.

Address: "The Significance of Menopausal Bleeding."

FLOYD E. KEENE, professor of gynecology, University of Pennsylvania School of Medicine.

Tuesday, November 6

8:00 a. m.

Diagnostic Clinic: "Chronic Appendicitis and Diseases which Simulate It."

GEORGE P. MÜLLER, professor of clinical surgery, University of Pennsylvania Graduate School of Medicine.

Diagnostic Clinic: "The Simulation of Chronic Glomerulo-Nephritis by Conditions not Primarily Renal."

O. H. PERRY PEPPER, professor of medicine, University of Pennsylvania School of Medicine.

Diagnostic Clinic: "Diagnosis and Treatment of Urinary Calculi."

WILLIAM E. LOWER, Cleveland Clinic.

Intermission for Review of Exhibits

Diagnostic Clinic and Address: "The Basic Nature of Chronic Arthritis and the Principles underlying Treatment."

ROBERT B. OSGOOD, professor emeritus of orthopedic surgery, Harvard University Medical School, and RALPH PEMBERTON, professor of medicine, University of Pennsylvania Graduate School of Medicine.

1:00 p. m.

Diagnostic Clinic: "Postoperative Abdominal Fistula."

JOHN F. ERDMANN, attending surgeon to the New York Post Graduate Hospital.

Address: "Recent Advances in the Treatment of Urinary Infection."

WILLIAM C. QUINBY, clinical professor of genito-urinary surgery, Harvard University Medical School.

Address: "Chronic Duodenojejunal Angle Ileus Simulating Gastric Crises of Tabes Dorsalis."

RALPH C. BROWN, clinical professor of medicine, Rush Medical College.

Intermission for Review of Exhibits

Address: "The Treatment of Myomata—Operation and Irradiation."

HANS GUGGISBERG, professor of obstetrics and gynecology, Berne University.

Address: "The Management of Common Colds."

PERRY G. GOLDSMITH, professor of otolaryngology, University of Toronto Faculty of Medicine.

Address: "Present Status of Immunization against Communicable Diseases."

JOHN A. KOLMER, professor of chemotherapy, immunology, and bacteriology, Temple University School of Medicine.

7:00 p. m.

Address: "Indications for and Types of Surgery in the Treatment of Duodenal Ulcer."

ROSCOE R. GRAHAM, assistant professor of surgery, University of Toronto Faculty of Medicine.

Address: "Clinical Aspects of the Various Important Types of Constitution."

LEWELLYS F. BARKER, professor emeritus of medicine, Johns Hopkins University School of Medicine.

Address: "Technic of Pneumonectomy and Lobectomy." (10 min.)

WILLIAM F. RIENHOFF, Jr., associate in surgery, Johns Hopkins University School of Medicine.

Address: "Diagnosis of Pancreatic Cysts."

ALLEN O. WHIPPLE, professor of surgery, Columbia University College of Physicians and Surgeons, New York.

Address: "Vascular Crises."

DAVID RIESMAN, professor emeritus of clinical medicine, University of Pennsylvania School of Medicine.

Wednesday, November 7

8:00 a. m.

Diagnostic Clinic: "Differential Diagnosis of Syphilitic and Non-Syphilitic Eruptions."

FRANK C. KNOWLES, professor of dermatology, Jefferson Medical College.

Diagnostic Clinic: "Pain."

JOHN M. T. FINNEY, professor of clinical surgery, Johns Hopkins University School of Medicine.

Diagnostic Clinic: "What Constitutes a Good History."

WILLIAM D. HAGGARD, professor of clinical surgery, Vanderbilt University School of Medicine.

Intermission for Review of Exhibits

Diagnostic Clinic: "The Significance of Jaundice."

HENRY A. CHRISTIAN, professor of the theory and practice of physic, Harvard University Medical School.

Diagnostic Clinic: "Diagnosis and Treatment of Brain Tumors."

WALTER E. DANDY, adjunct professor of neurological surgery, Johns Hopkins University School of Medicine.

1:00 p. m.

Address: "The Surgery of Amelioration for Intractable Urological Lesions."

JOSEPH F. MCCARTHY, professor of clinical urology, New York Postgraduate Medical School.

Address:

PAUL STRASSMANN, professor of obstetrics and gynecology, Medical Department, University of Berlin.

Address: "Pregnancy Associated with Diabetes."

"The Use of Cholesterol in the Treatment of Diabetes."

ELLIOTT P. JOSLIN, clinical professor of medicine, Harvard University Medical School.

Address:

WILLIAM J. MAYO, chief of staff, Mayo Clinic.

Intermission for Review of Exhibits

Address: "Problems Relating to Peritonitis."

VERNON C. DAVID, clinical professor of surgery, Rush Medical College.

Address: "Chronic and Recurring Diarrheas."

ROBERT G. TORREY, professor of medicine, Woman's Medical College of Pennsylvania.

Address: "Fundamental Physiological Concepts Differentiating Arterial from Arteriovenous Lesions and Their Importance in Relation to Surgical Therapy. Clinical and Experimental Studies."

EMILE F. HOLMAN, professor of surgery, Stanford University School of Medicine.

Address: "Streptococcus Infections."

WARFIELD T. LONGCOPE, professor of medicine, Johns Hopkins University School of Medicine.

CONVENTION DINNER

Addresses by Distinguished Guests

Thursday, November 8

8:00 a. m.

Diagnostic Clinic: "Functional Disorders of the Gastro-Intestinal Tract."

ALFRED STENGEL, professor of medicine, University of Pennsylvania School of Medicine.

Diagnostic Clinic: "Back Injuries."

JOHN J. MOORHEAD, clinical professor of surgery, New York Postgraduate Medical School.

Diagnostic Clinic: "Malignant Hypertension, Manifestations and Treatment."

CAMPBELL P. HOWARD, professor of medicine, McGill University Faculty of Medicine.

Intermission for Review of Exhibits

Diagnostic Clinic: "Benign Tumors of the Breast."

DEAN D. LEWIS, professor of surgery, Johns Hopkins University School of Medicine.

Diagnostic Clinic: "Pain in the Chest."

JAMES H. MEANS, professor of clinical medicine, Harvard University Medical School.

1:00 p. m.

Diagnostic Clinic: "Differential Diagnosis of Border Line Cases."

HUGH CABOT, professor of surgery, University of Minnesota, Graduate School of Medicine.

Address: "Gynecological and Obstetrical Applications of Endocrinology."

EMIL NOVAK, associate in gynecology, Johns Hopkins University School of Medicine.

Address: "Ligation of the Splenic Artery in Some Splenomegalic Affections."

ROBERTO ALESSANDRI, professor of surgery, Royal University of Rome.

Intermission for Review of Exhibits

Address: "Diverticulitis and Carcinoma of the Colon with Special Reference to the Differential Diagnosis."

ROSS GOLDEN, associate professor of medicine, Columbia University College of Physicians and Surgeons.

Address: "The Treatment of Acute and Chronic Mastoiditis."

FIELDING O. LEWIS, professor of laryngology, Jefferson Medical College.

Address: "The Diagnosis and Management of Diseases of the Biliary Tract."

W. WAYNE BABCOCK, professor of surgery, Temple University School of Medicine.

7:00 p. m.

Address: "The Surgical Aspects of Essential Hypertension."

GEORGE J. HEUER, professor of surgery, Cornell University Medical College, and I. H. PAGE, Rockefeller Institute for Medical Research.

Address: "Some Aspects of the Etiology, Diagnosis and Treatment of Anemia."

GEORGE R. MINOT, professor of medicine, Harvard University Medical School.

Address: "Certain Aspects of Surgery of the Large Intestine." (10 min.)

RICHARD B. CATTELL, Lahey Clinic.

Address: "The Relation of the Endocrines to the Psychoses."

LOUIS J. KARNOSH, assistant clinical professor of nervous diseases, Western Reserve University School of Medicine.

Address: "Intracranial Injuries of the New Born from the Standpoint of the General Practitioner." (Moving Picture Demonstration.)

P. BROOKE BLAND, professor of obstetrics, Jefferson Medical College.

Friday, November 9

8:00 a. m.

Diagnostic Clinic: "Poliomyelitis."

JOHN CLAXTON GIRTINGS, professor of pediatrics, University of Pennsylvania School of Medicine.

Diagnostic Clinic: "The Diagnosis of Primary Pituitary and Parapituitary Lesions."

CHARLES H. FRAZIER, professor of surgery, University of Pennsylvania School of Medicine.

Diagnostic Clinic: "Primary Carcinoma of the Lung."

EVARTS A. GRAHAM, professor of surgery, Washington University School of Medicine.

Intermission for Review of Exhibits

Diagnostic Clinic: "Polyglandular Disease."

GEORGE CRILE, Cleveland Clinic.

Diagnostic Clinic: "Pernicious Anemia and Leukemia."

HARLOW BROOKS, emeritus professor of clinical medicine, New York University and Bellevue Hospital Medical College.

1:00 p. m.

Diagnostic Clinic: "Differential Diagnosis of Tuberculous and Non-Tuberculous Infection."

CHARLES R. AUSTRIAN, associate professor of medicine, Johns Hopkins University School of Medicine.

Diagnostic Clinic: "The Curability of Carcinoma."

E. STARR JUDD, professor of surgery, University of Minnesota, Graduate School of Medicine.

Address: "Recent Advances in Our Knowledge of the Thymus and Pineal Glands."

LEONARD G. ROWNTREE, director of the Philadelphia Institute for Medical Research.

Address:

CHARLES H. MAYO, professor of surgery, University of Minnesota Medical School.

Intermission for Review of ExhibitsAddress: "The Treatment of Hirschsprung's Disease."
FRED W. RANKIN, Lexington, Kentucky.

Address: "The Present Status of Surgery of the Sympathetic Nervous System."

ALFRED W. ADSON, professor of neurosurgery, University of Minnesota Graduate School of Medicine.

Address: "Functional Nervous Disorders in Children."

EDWARD L. BAUER, professor of diseases of children, Jefferson Medical College.

COMMENTS AND EXCERPTS**Science and Research**

To quote from an article published in a recent *Science News Letter*: Dr. Clayton May, of Minneapolis, is praised by the editor of *The Lancet*, British medical journal, for not informing the police of the whereabouts of the escaped Indiana convict, John Dillinger, when the latter came to Dr. May as a patient.

Dr. May was fined and sentenced to prison for this act, and an appeal is now pending.

The editorial in *The Lancet* contends that there was only one question for Dr. May: "Did Dillinger come to him trusting in professional honor?"

The answer is obvious, this medical journal states. Dr. May's colleagues in every country, the editorial contends, will applaud his action in not betraying his professional trust.

According to *Science News Letter*, toads of a South African clawed variety may be used by physicians to answer the important question of pregnancy. Drs. H. A. Shapiro and H. Zwarenstein, of the University of Cape Town's Department of Physiology, have reported the discovery in *Nature*.

The test performed by injecting secretions of the patient into the female toad takes only about 18 hours. The test is a modification of the well-known Aschheim-Zondek test. These investigators have also discovered that the toad may be used in investigations of the incorrect functioning of human glands.

Fatigue is one of the most serious and least recognized of the menaces to good health. The Minnesota State Medical Association suggests the following as the best ways to recover from excessive fatigue: A luke warm bath or possibly a hot or cold shower; some simple, easily digested food such as a cup of appetizing hot soup; a change in posture, preferably a short period of lying down in a cool, dark room, or any change which is different and relaxing. To quote from a statement made by doctors of this association: "There are still too many of us who have the old-fashioned idea that it is highly praiseworthy to be completely tired out; that it is an indication of having devoted yourself wholeheartedly to your work."

"It is time we realized that the rested parent, teacher, worker, or child is the efficient one. We accomplish far more work of better quality in short periods when we are rested than in long periods when we are tired."

Drs. Earl W. Flosdorf, Stuart Mudd, John Reichel, and Harry Eagle, of the University of Pennsylvania School of Medicine, have developed a method and apparatus which makes possible the preservation for a long period such biologic products as diphtheria antitoxin and antityphoid serum. Tests indicate that this new method will make it possible to keep sera much longer than usual at temperatures of 120° F. without decreasing their potency. To quote from a paper read by these scientists at the recent meeting of the American Chemical Society: "Heretofore, convalescent serum from one epidemic, if drawn at time of optimum potency, deteriorated on storage until needed for the next epidemic. If not drawn until needed, a serum of inferior potency was obtained. It is now possible to draw the serum at time of optimum potency and, by subjecting it to the process, keep it in its original condition until such time as it may be required for use."

The method of preparation involves freezing sterile serum at 100° F. and rapidly removing the contained water under high vacuum. The containers are then sealed off under vacuum. Sterile distilled water is added when the serum is needed for use.

**EMERGENCY MEDICAL RELIEF
IN PENNSYLVANIA**HAROLD A. MILLER, M.D., *Director*, Harrisburg, Pa.**THE JOURNEY OF THE MEDICAL ORDER**

Dean Swift defined gratitude as "a lively appreciation of favors yet to be received" and members of the medical profession—especially with collections from private practice as they are these days—naturally are grateful if the State remunerates them promptly for yeoman's service rendered to the unfortunate on the relief rolls.

There may not be in all instances, however, an equally lively appreciation on the profession's part of the complicated procedure entailed in the dispensation of such relief, and accordingly some may feel that the payment of bills at times is unnecessarily delayed at Harrisburg.

In the interests of a better mutual understanding, therefore, it seems apropos to trace the journey of the Medical Order from the time it is issued until it reaches its final resting place in the files of the Auditor General's Department.

As those at all familiar with the State's work in this field know, applicants for emergency medical relief must first procure a Medical Order from the Relief Office of the county in which they reside. This order, which may be issued to cover one or more member of a family ill or needing dental care at the time, is presented by them to the family physician or dentist.

When the physician or dentist has completed his work for the patient or patients he turns the medical order, together with an invoice, over to the County Relief Office. The County Relief Office, in turn, submits these to the State Relief Office at Harrisburg.

Upon receipt at State headquarters, the order comes under the scrutiny of auditors to see that it conforms in every detail with the official Rules and Regulations. If the requirements have been fully met, the Order goes to the Auditor General's office. Here it is rechecked to insure that no minor inaccuracies have crept in. If then found to merit the stamp of final approval, it is routed to the State Treasurer's office, which issues a check to the physician or dentist in payment for his professional work.

The progress of the Medical Order through the routine channels, however, is not always so orderly. The auditors frequently discover a condition or situation which calls for review by the Medical Department and sometimes the Director of Medical Relief deems it expedient to consult the State Advisory Committee. In such cases, obviously, issuance of the treasurer's check is delayed.

Some idea of the task confronting the Medical Relief staff may be had when it is realized that an average of 5,000 Medical Orders (including druggists' prescriptions and nurses' orders) are received per day. These are sent on their way in the order in which they are received from the postman, although for reasons explained above, pay checks do not necessarily emerge in the same order.

Judged by the growing relief demands being felt in this and other States a further increase in the volume of Medical Orders may be anticipated during the coming fall and winter. As time goes on the machinery at central headquarters will be enabled to function with an even higher degree of speed and efficiency than has heretofore been possible.

HOSPITAL ACTIVITIES

Nurse Anesthetist in California.—A nurse is privileged under California law to administer anesthetics, according to a superior court ruling on file Aug. 1, 1934. The ruling, of wide importance to the medical profession, was issued by Superior Judge Allan B. Campbell, sitting by assignment from Kern County, in denying an injunction to 3 physicians who sought to prevent Miss Dagmar A. Nelson, a nurse, from such practice. The suit was in the nature of a friendly action.

"Acts of the defendant, under the evidence introduced in the case, do not constitute the practice of medicine or surgery under the medical practice act," Judge Campbell held.—*Los Angeles (Calif.) Herald*, Aug. 1, 1934.

Hospitalization Held Proved by Records.—A question to an applicant for life insurance whether he had consulted any physician for certain diseases, including those of the heart or gout, was answered in the negative. In an action on the policy it appeared that within five years of his death insured had consulted various physicians and undergone several periods

of observation, examination and test in a hospital. Working and tentative diagnosis of Raynaud's disease, gout, Buerger's disease, parathyroid deficiency, hypothyroidism, Addison's disease, vasomotor impairment, possible endocrine gland disturbance and scleroderma had been made. The final cause of insured's death was nephritis and terminal pneumonia.

A question whether he had been examined or treated by a physician within five years was also answered in the negative. And a question whether he had ever been an inmate of a hospital was also answered in the negative.

The Seventh Circuit Court of Appeals, *Ætna Life Ins. Co., v. Perron*, 69 F. (2d) 401, held that these false statements barred recovery on the policy. It denied the beneficiary's contention, in the face of the hospitalization shown, the consultation of physicians and the repeated attempts to diagnose his ills, that insured was not an inmate of the hospital because its authorities never attempted to cure him.—*Medical Record*, Aug. 15, 1934.

PHYSICAL THERAPY

Radio as Aid to "Painless" Dentistry.—An application of the discoveries of Dr. Hugo Lieber on the conduction of sound has been adapted for use in dentistry to counterbalance the painful effects of drilling. This application has been made by Dr. Edward Drosen, a Milwaukee dentist, who claims that by clamping a radio earphone, which is connected to a fairly high-powered radio onto the forehead or onto the mastoid bone, the disagreeableness of a dentist's drilling is largely removed. These plates, vibrating musically, communicate this vibration to the bones of the head. By combining the use of these plates with surface anesthesia and nerve blocking anesthesia, it is possible, according to Dr. Drosen, to obtain almost "painless" dentistry.

MEDICOLEGAL NOTES

A Study of 35,000 Malpractice Suits.—Something like 4000 suits a year, or over ten a day, are brought against the doctors in the United States for malpractice. This mere statement shows the gravity of the situation and gives point to an exhaustive study of the causes of these suits, made by two Massachusetts surgeons, Dr. Halbert G. Stetson, a former president of the Massachusetts Medical Society, and Dr. John E. Moran, who is associated with him in the County Hospital at Greenfield. They have obtained information from liability corporations and physicians on 35,000 cases, and publish their findings in the *New England Journal of Medicine*.

To come at once to the principal cause, however unpleasant it may be, they find that 60 per cent of the suits are due to "inopportune remarks" by subsequent attending physicians, slighting or slurring statements that suggest to the patient's mind the first doctor blundered and that he can realize something from a lawsuit. These remarks may be almost involuntary or unintentional, or they may be charged with the venom of professional jealousy. They may be wordless. A lift of the eyebrow, a shrug of the shoulder, is enough. Some informants put the proportion of suits due to these professional aspirations as high as 80 per cent of the total. A doctor may be unwittingly trapped into a criticism. A specialist, for instance, is visited by a patient he has

never seen before, gives his opinion, and, months later, is summoned as a witness in a suit. A doctor is asked a hypothetical question by a lawyer friend. He answers offhand, and a little later finds he has to answer it before a jury. These are among the "inopportune remarks" that start litigation.

Worse, however, are the barbed criticisms made by physicians embittered by personal enmity, animosity, and professional jealousy. These men perhaps do not realize that they are fanning a fire that may burn their own fingers some day, for one suit kindles another, and, next time, they may find themselves brought to court and mulcted to the tune of hundreds or thousands of dollars. One informant put the number of suits due to "inopportune remarks" at 65 per cent—45 per cent incautious and 20 per cent "undoubtedly due to professional jealousy, self-assurance, and superiority psychology." The authors recall the statement of a famous (if mythical) old New York State resident, none other, in fact, than Rip Van Winkle, who said after one of Dame Van Winkle's outbursts of temper: "A tart tongue never mellow with age, and a sharp tongue is the only edge tool that grows keener with constant use." Volumes have been written on the mischief done by this unruly member, but evidently without making it much better.

Next, in order of importance, are the counterclaims brought because the physician is trying to collect his bill. Such suits, of course, are hardly avoidable, but the doctor can have his records in such good shape as to insure an iron-clad defense.

Fractures, it appears, cause a large number of malpractice suits. No less than 90 malpractice suits based on fractures were pending in Boston alone at one time. One investigator attributes 90 per cent of the fracture malpractice suits to the absence of roentgenrays, divided thus: Diagnosis missed, 56 per cent; a complication overlooked, 18 per cent; malunion not recognized, 12 per cent; allegation by hostile practitioner could not be refuted, 4 per cent. The remaining 10 per cent are laid to the adverse criticisms mentioned above.

How can these suits be avoided, or, if not avoided, successfully defended? First of all, the physician should keep an accurate and detailed record of his treatment of the patient, copies of prescriptions, roentgenograms, all details of operations. The so-called "practical" nurses are often lax in making records, and the doctor should keep a watchful eye on them. Consultations are advisable when the case is serious and the family look like trouble-makers. Pathological examinations are a help, too. Consent should be secured before an operation, in writing if the character of the parties is at all dubious. The consent should cover unforeseen complications that may appear during the operation while the patient is under anesthesia. The writers have put in a nutshell the following five "best safeguards against malpractice": (1) A cautious tongue. (2) Proper use of the roentgen ray. (3) Accurate and complete records. (4) Adherence to the code of medical ethics and application of the Golden Rule in the care of patients who have been previously attended by another physician. (5) A knowledge of the accepted forms of treatment.

Doctors must not imagine, either, that their insurance relieves them from payment. The policyholder always pays the bill. If he does not believe it, let him read the experience of the New Haven Medical Association. Their insurance company in 7 years expended \$44,597, while the amount deposited by the group with the company was only \$18,127. What happened? The com-

pany notified the Association that future payments must be four to six times more than they had previously paid! Note, too, that this increase fell not only upon the doctors who had been mistaken in their diagnosis and treatment, but equally upon those who let fall the acid drops of unkindly criticism. So justice has a way of attending to its own punishments in the long run and of administering its own bitter dose where it is needed. A much pleasanter medicine would be the prescription adopted in the hard-headed world of trade: "Boost, don't knock."—Editorial, *N. Y. State J. M.*, Aug. 1, 1934.

PUBLIC HEALTH

Roadside Eating Stands.—Thirty-five hundred roadside eating stands along the main and secondary highways of Pennsylvania are being checked for sanitary facilities and proof that food handlers have certificates of health. The inspections are being made by the Division of Restaurant Hygiene of the Health Department, and are made to assure the traveling public that roadside stands are clean and sanitary.—*The Car*.

Veterinaries Aid Public Health.—The aid of veterinary science to human health was outlined in an address by Dr. John R. Mohler, chief of the Bureau of Animal Industry of the Department of Agriculture and president of the International Veterinary Congress, at the session of the congress held Aug. 15, 1934, in New York City.

Federal meat inspection in this country, he pointed out, involves the veterinary examination of approximately 70,000,000 food animals a year. Not only is this inspection a barrier to the possible spread of infections of animals to human beings, but it provides other public health safeguards and is the basis for an extensive pharmaceutical industry as well.

"Mankind has come to depend on the glands and other parts of animals' bodies for scores of preparations used in the treatment of human ailments," he said. "Similarly, manufacturers of antitoxins, serums, bacterins, and other biologic products utilize methods many of which have their origin in veterinary science; in fact, numerous establishments licensed by the bureau of Animal Industry for the production of biologics produce these articles for both medical and veterinary use. The joint supervision of physicians and veterinarians over the milk supply, has brought remarkable improvements in the wholesomeness of milk supplies, with well recognized benefits to public health through reduction of tuberculosis, typhoid fever, septic sore throat, and other maladies. The service of veterinary science to public health suggests other possible applications of knowledge, obtained from livestock, for the betterment of mankind. Promising fields are those of race improvement, nutrition, and allied biologic studies."

Menace of Dog-bites to City Residents.—The Health Commissioner of New York City has decided that the 350,000 dogs of New York City must be muzzled when they are taken out in public. Though an ordinance to that effect is already on the city statutes, it will be more strongly enforced in the future. According to an article published in the *New York Times*, approximately 7000 persons in New York City have been bitten by dogs thus far this year, an increase of 1664 over the same period in 1931.

Health Commissioner Rice states that the dog-bite menace in New York outranks that of diphtheria, scar-

let fever, or even tuberculosis. Because of rigid supervision of all cases of dog-bite, there has, however, been no death from rabies since 1930.

Death Rate for Tuberculosis Lower for 1934.—

According to statisticians of the Metropolitan Life Insurance Company who have been studying the mortality figures for the first quarter of the year, a large reduction in the tuberculosis death rate during 1934 is foreseen. Among the industrial population, it is expected that the death rate from tuberculosis will run about 60 per 100,000 for this year. During the first quarter of 1934, the rate among insured white persons was 51.2 per 100,000, which they claim is a "remarkably low figure."

Morbidity in Pennsylvania in July, 1934

Locality	Disease				
	Diphtheria	Measles	Scarlet Fever	Typhoid Fever	Whooping Cough
Aliquippa	1	36	6	0	3
Allentown	5	5	0	0	18
Altoona	1	6	2	0	49
Ambridge	0	2	2	0	1
Arnold	0	0	0	0	0
Beaver Falls	0	4	0	0	4
Bellevue	0	0	0	0	3
Berwick	0	0	1	0	0
Bethlehem	0	5	2	0	3
Braddock	0	0	1	0	0
Bradford	0	4	1	0	11
Bristol	0	4	1	1	0
Butler	0	9	0	0	8
Canonsburg	1	0	0	0	1
Carbondale	0	0	0	0	1
Carlisle	0	0	0	0	1
Carnegie	0	3	0	0	4
Chambersburg	0	1	1	1	0
Charleroi	0	0	0	0	1
Chester	0	2	0	3	1
Clairton	0	0	0	0	2
Coatesville	0	0	0	0	1
Columbia	0	0	0	0	1
Connellsville	0	0	0	0	0
Conshohocken	0	0	1	0	0
Coraopolis	0	0	0	0	1
Dickson City	0	0	0	0	0
Donora	0	1	0	0	0
Dormont	0	1	0	0	0
Du Bois	0	0	1	0	0
Dunmore	0	0	0	0	0
Duquesne	0	1	3	0	14
Easton	0	1	0	0	7
Ellwood City	0	0	0	0	0
Erie	1	3	4	1	41
Farrell	0	0	0	0	1
Franklin	0	0	10	0	2
Greensburg	0	0	0	0	1
Hanover	0	0	0	0	0
Harrisburg	0	2	1	1	13
Hazleton	0	62	1	0	10
Homestead	0	1	0	1	1
Jeannette	0	2	2	0	0
Johnstown	0	9	5	0	4
Kingston	0	0	1	0	3
Lancaster	1	2	9	2	20
Latrobe	0	0	0	0	0
Lebanon	0	2	0	0	3
Lewistown	0	0	0	0	0
McKees Rocks	0	0	2	1	0
McKeesport	1	2	0	0	15
Mahanoy City	1	1	1	0	0
Meadville	0	3	0	0	0
Monessen	3	0	4	0	0
Mount Carmel	1	0	0	0	0
Munhall	0	2	0	0	0
Nanticoke	0	0	1	0	0
New Castle	0	0	1	0	1
New Kensington	0	1	1	0	3
Norristown	0	0	0	2	7
North Braddock	0	2	3	1	0
Oil City	0	3	0	0	34
Old Forge	0	0	0	0	0
Olyphant	0	0	0	0	1
Philadelphia	4	34	54	8	343
Phoenixville	0	2	0	0	13
Pittsburgh	25	273	47	3	86
Pittston	0	2	0	0	0
Plymouth	0	0	0	0	0
Pottstown	0	0	0	0	3
Pottsville	2	0	0	0	0
Reading	4	5	2	0	82
Seranton	4	41	1	0	40
Shamokin	0	1	0	0	0
Sharon	1	0	0	0	8
Shenandoah	0	0	0	0	0
Steelton	0	8	0	0	7
Sunbury	0	6	0	0	1
Swissvale	2	17	0	0	8
Tamaqua	0	0	2	0	0
Taylor	0	0	0	0	0
Turtle Creek	0	15	0	0	2
Uniontown	0	34	3	0	1
Vandergrift	0	0	0	0	22
Warren	0	4	0	0	3
Washington	0	5	1	2	7
Waynesboro	0	1	0	0	1
West Chester	0	2	0	1	1
Wilkes-Barre	1	2	0	0	10
Wilkesburg	0	3	1	0	7
Williamsport	4	26	1	0	8
York	0	0	0	0	1
Townships					
Allegheny County:					
Harrison	1	1	0	0	0
Mt. Lebanon	0	0	0	0	0
Stowe	0	2	0	0	0
Delaware County:					
Haverford	1	0	0	0	3
Upper Darby	0	7	2	0	30
Luzerne County:					
Hanover	1	0	0	0	0
Plains	0	0	2	0	0
Montgomery County:					
Abington	0	2	0	0	1
Cheltenham	0	11	0	0	0
Lower Merion	0	12	0	0	5
Total Urban ..	66	700	184	28	988
Total Rural ...	56	647	163	72	551
Total State ...	122	1347	347	100	1539

TUBERCULOSIS ABSTRACTS

A Review for Physicians

PREPARED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Published through the coöperation of the Pennsylvania Tuberculosis Society and The Medical Society of the State of Pennsylvania

THE Clinical Section of the 30th Annual Meeting of the National Tuberculosis Association was distinguished by the presentation of an unusual number of significant papers. Dr. Iago Galdston, who herein presents a summary of the papers, properly complained in his transmitting note, that he was, with keen regrets, obliged to gloss over much valuable material. For a detailed and conclusive presentation of the Clinical Section, the reader must be referred to the Transactions of the National Tuberculosis Association, which will be published in December, 1934.

Clinical Progress in Tuberculosis

Papers presented fall under three headings: diagnosis, treatment, and epidemiology.

Diagnosis

Under diagnosis undoubtedly the outstanding contribution was made by Dr. Esmond R. Long, of Philadelphia. On behalf of his co-workers and himself, he reported on the production of a standard tuberculin which will make possible a heretofore unachievable uniformity of data bearing on the epidemiology of tuberculosis.

Many workers have shown that there are variations in what might be termed the potencies of different tuberculins used in tuberculin testing. This variation in potency or provocativeness is unquestionably responsible for a substantial part of the difference in the reported variations of the prevalence of tuberculosis infection in comparable ages in differ-

ent parts of the country. Unless the foundation of our tuberculin testing is sound, unless we have a uniform tuberculin and a uniform technic for testing, we cannot expect to achieve an intelligent epidemiology of tuberculosis. We cannot know what headway we are making; we are not able to determine whether tuberculosis infection is becoming more or less widespread or remaining stationary. According to Dr. Long, it is now possible to produce a substance, a purified protein derivative from tuberculin, which has a consistency not attainable before. This substance has a specificity, a high potency, and a uniformity of strength which will well serve as a solid foundation for tuberculin testing. We therefore now have in diagnosis a dependable means for the "census taking of the enemy."

Treatment

One was much impressed with the rapid and sound progress made by surgery. Undoubtedly, the application of thoracic surgery in the treatment of tuberculosis is becoming ever more widespread, largely because of the general advance made in general surgery in recent years. This progress includes the development of ingenious instruments, the greater utilization of electric currents of various sorts, the advancement made in local, regional and general anesthetics, and in the better care we can give, both preoperative and postoperative, to our patients.

Thoracic surgery in the treatment of tuberculosis is not new. Forlanini, Jacobeus, Lilienthal and others urged its value decades ago. That it has come to the forefront today is due to the fact that in surgery, as in medicine as a whole, every scientific advance is "grist to the mill."

Most impressive were the reports showing the value of pneumolysis, the severing of adhesions which interfere with effective collapse.

Naturally, the clinicians are keeping a close check on the surgeons, serving to keep in restraint excesses of enthusiasm. The paper by Dr. J. W. Cutler, of Philadelphia, in which he presented the clinical analysis of 200 consecutive cases, with a description of the technic and the instruments used, was particularly interesting.

Epidemiology

One very interesting and suggestive report is that of a study on the relationship of hypersensitiveness to resistance, made on experimental animals (guinea pigs) in the Saranac Laboratory. This study, which we hope will be carried further, deserves the most careful scrutiny by every one interested in the immunology of tuberculosis. It promises to have a

significant bearing on that provocative problem whether infection with the tubercle bacillus confers added resistance to tuberculosis.

In this study, guinea pigs were infected with the tubercle bacillus, but so treated with tuberculin as not to be permitted to develop a hypersensitiveness. (That they were not hypersensitive was proved by the fact that they never developed a positive tuberculin reaction.) These guinea pigs withstood their infections better than those animals which were similarly infected but which were allowed to develop tuberculin hypersensitiveness.

From several quarters, too, there came epidemiologic notations on the resistance of the Negro to tuberculosis. The general impression produced by the reports was that the Negro has no particular demonstrable susceptibility to tuberculosis, which singles his reaction to the disease as against the white man's. On the contrary, the Negro's response to treatment is in every respect as good as that of the white race.

Dr. Dochez's discourse on "Acute Infections of the Upper Respiratory Tract," reports on studies of the influence of vitamin C on experimental tuberculosis in guinea pigs, Dr. Richard M. McKean's and Dr. Gordon B. Myers' study on "Tuberculosis and Diabetes," have important bearings on the epidemiology of tuberculosis, in that they point to the importance of nonspecific, that is, nutritional resistance to tuberculosis. Astutely it was pointed out by one discussant that if the diabetic is particularly susceptible to tuberculosis because of a disturbed nutrition, the individual whose nutrition is disturbed not by lack of insulin but by improper or inadequate intake of nutriment (whatever be the cause of that—poverty, ignorance, flaming youth, *etc.*), may similarly prove to be especially subject to tuberculosis.

OFFICERS' DEPARTMENT

WALTER F. DONALDSON, M.D., *Secretary*, 8104 Jenkins Arcade, Pittsburgh, Pa.

ADMIRES LEADERSHIP ENDEAVORS

WASHINGTON, D. C.
September 21, 1934.

MY DEAR DOCTOR DONALDSON:

I wish to thank you for sending me so promptly the February number of the PENNSYLVANIA MEDICAL JOURNAL. I have found it very interesting. I am enclosing my check for \$6.00 to cover two years' subscription to the JOURNAL beginning with January, 1934.

Ever since my service on the Committee on the Costs of Medical Care I have been greatly interested in medical economic subjects. It seems to me that you are doing fine work in Pennsylvania to establish and maintain the leadership of the medical profession in all that pertains to the people's health. If you have published the pamphlet "Survey of Pennsylvania's Poor Relief Act" mentioned in your editorial in the February number I shall be glad to receive it.

Very sincerely yours,

A. C. CHRISTIE, M.D.

ACKNOWLEDGMENTS

September 20, 1934.

DEAR DOCTOR DONALDSON:

We are in receipt of your check for \$475 paid to our Society as an expression of appreciation of the cooperation extended by us through our official bulletin.

While we have always endeavored to devote the pages of the *Roster* to further any worthwhile projects of local, State, or national import without any thought of remuneration, it is very pleasant to receive this substantial token of appreciation on the part of the State Society.

Will you not therefore convey our thanks to the Board of Trustees of The Medical Society of the State of Pennsylvania and assure them of the continued support of the *Weekly Roster and Medical Digest* as well as of the Board of Directors, by which body its policies are directed.

Very sincerely yours,
FRANKLIN M. CRISPIN, *Executive Secretary*,
Philadelphia County Medical Society.

September 20, 1934.

DEAR DOCTOR DONALDSON:

Check for \$25 for Cumberland County Medical Society received this morning and hereby acknowledged and appreciated. We shall continue to do all we can along the lines indicated, realizing the need of the same at this time.

Cordially,
RICHARD R. SPAHR, *Secretary*,
Cumberland County Medical Society.

CONTRIBUTIONS TO MEDICAL BENEVOLENCE FUND

The Committee on Medical Benevolence makes grateful acknowledgment of the following contributions to the fund:

Woman's Auxiliary, Montgomery County Medical Society	\$100.00
Woman's Auxiliary, Lehigh County Medical Society	100.00
Woman's Auxiliary, Clinton County Medical Society	25.00
Woman's Auxiliary, York County Medical Society	50.00
Woman's Auxiliary, Clearfield County Medical Society	25.00
Woman's Auxiliary, Potter County Medical Society	7.00
Woman's Auxiliary, Huntingdon County Medical Society	40.00
Woman's Auxiliary, Chester County Medical Society	118.50
Total	\$465.50

PAYMENT OF PER-CAPITA ASSESSMENT

The following payment of per-capita assessment has been received since August 13. Figures in first column indicate county society numbers; second column, State Society numbers:

1934				
August 27	Blair	99	7804	\$7.50
	Wayne-Pike ..	24	7805	7.50
	Delaware	144	7806	7.50
	Northampton .	144	7807	7.50
	Montgomery .	174	7808	7.50
31	Lancaster	171-172	7809-7810	15.00
Sept. 8	Fayette	114-115	7811-7812	15.00
	Bradford	40	7813	7.50
	Philadelphia ..	2068-2084	7814-7830	127.50
11	Mifflin	25	7831	7.50

CHANGES IN MEMBERSHIP OF COUNTY SOCIETIES

The following changes have been reported to September 12:

ADAMS: *Removal*—Maurice N. Harris from Cashion to Hanover (York Co.).

ALLEGHENY: *Removal*—William J. Sterrett, from Pittsburgh to Beaver Falls (Beaver Co.).

ARMSTRONG: *Removal*—Thomas H. Newcome from Seaford, Del., to Cowansville, Pa.

BLAIR: *Reinstated Member*—Frank Keaggy, 401 Fourth Ave., Altoona. *Removal*—Roy W. Goshorn from Allentown State Hospital, Allentown, to 526 Martin St., Bellwood.

BRADFORD: *Reinstated Member*—Henry D. Rentschler, Sayre.

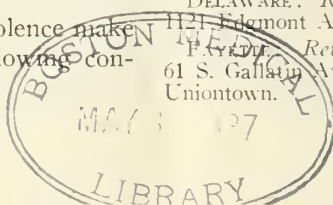
CENTER: *Death*—Lincoln E. Kidder, State College (Jeff. Med. Coll., '96), recently, age 70.

CHESTER: *Removal*—Everett M. Aikman from West Chester to Wilmington, Del.; Norman M. Macfarlane from Paoli to 217 Argyle Road, Ardmore. *Death*—David P. Rettew, Coatesville (Univ. of Pa., '89), recently, age 69.

DAUPHIN: *Removal*—Percy E. Deckard from Pitscairn, to Altoona (Blair Co.).

DELAWARE: *Reinstated Member*—Paul C. Crowther, 1121 Edgmont Ave., Chester.

FAYETTE: *Reinstated Members*—George H. Griffin, 61 S. Gallatin Ave., Charles H. LaClair, 24 Church St., Uniontown.



GREENE: *Removal*—Louis E. Wells, Jr., from Dingman's Ferry to Renovo.

LACKAWANNA: *Removal*—Anna L. Levy from Scranton to 155 W. River St., Wilkes-Barre.

LANCASTER: *New Member*—J. Harry Pickel, Jr., 643 Locust St., Columbia. *Reinstated Member*—William C. Keller, 1930 Chestnut St., Philadelphia. *Transfer*—Herbert E. Hein, Lancaster, from Lebanon County Society.

LEHIGH: *Death*—Solon C. B. Fogel, Allentown (Univ. Pa., '76), Aug. 26, age 85.

MIFFLIN: *New Member*—George J. Heid, Burnham.

MONTGOMERY: *Reinstated Member*—Frank L. Follweiler, Jenkintown.

McKEAN: *Death*—Henry J. Nichols, Bradford (Univ. Buffalo, '82), recently, age 75.

NORTHAMPTON: *New Member*—Paul B. Kreitz, 87 E. Broad St., Bethlehem. *Removal*—Nicholas M. Romano from Bangor to Roseto.

PHILADELPHIA: *New Members*—Virginia P. Alvarez-Hussey, 5316 Angora Terracc, Janet Anderson, 7047 Germantown Ave., Arthur Abraham Ecrenbaum, 1725 N. 7th St., Benjamin F. Biscoe, 2311 N. 33d St., Ralph Blumenfeld, 7057 Franford Ave., Charles Blumenthal, 7501 Torresdale Ave., Henry Blumzweig, 1804 S. 6th St., David Clayton Cannon, 9418 Bustleton Ave., Sylvester Cherniak, 4401 N. Broad St., Edgar Boykin Clark, 4615 Paul St., Edward L. Clemens, 903 S. 49th St., James Harwood Closson, 357 Lyceum Ave., Roxborough, Francesco P. DiDio, 731 Morris St., Harry Jay Epstein, 5217 Lebanon Ave., Robert H. Farley, 110 E. Washington Lane, J. Vincent Farrell, 422 Spencer St., Thomas Boyd Getty, Bustleton Ave., Somerton, Michael Gradess, 2932 N. 6th St., James Greenwood, Jr., Philadelphia General Hospital, Oscar Eugene Heim, 4862 Tacony St., Walter Fitzgerald Jerrick, 1843 Christian St., Charles G. Johnston, 6635 Morris Park Road, Minta Precter Kemp, Friends Hospital, Roosevelt Blvd., Walter Ivan Lillie, 35 Berwick Road, Overbrook, Paul E. Loudenslager, 5034 Pine St., George Murray Mandelbaum, 5103 Whitaker St., Lewis Merklin, 5818 Malvern St., Paul Meshberg, 904 N. Franklin St., Harry Philip Metzger, 4505 E. Thompson St., Ralph Edward Otten, Philadelphia General Hospital, A. Victor Pelosi, 1803 S. Broad St., David W. Postles, 1728 N. 21st St., Helena E. Riggs, Twentieth and Chestnut Sts., Louis C. Robinson, 4551 N. 5th St., Frank J. Rose, 1234 S. 8th St., Mitchell Irving Rubin, 271 S. 15th St., Goodell Wilson Stroup, 65th St. and Windsor Ave., Frederick Eugene Traganza, 5802 N. 5th St., Joseph Waldman, Park Manor Apartments, 40th and Girard Ave., Lennie Cole Wall, 1201 S. 46th St., Charles J. White, 3400 Queen Lane, David Zimring, 995 N. 6th St. *Reinstated Members*—J. Bernard Bernstine, 2007 Pine St., Pedro J. Carreras, 105 W. Susquehanna Ave., Charles E. Cramp, 2347 E. Norris St., Melvin M. Franklin, 1423 Diamond St., DeHaven Hinkson, 329 N. 40th St., James McGlathery Hincken, 2500 S. Colorado St., Jacob S. P. Makler, 2339 Wharton St., Berta M. Meine, 1930 Chestnut St., Charles A. Moriarty, 1911 Green St., Joseph G. Moore, 5842 Haverford Ave., Edward I. Murphy, 1429 Erie Ave., Oliver Kane Reed, 4418 Walnut St., William H. Schmidt, Medical Arts Building, 16th and Walnut Sts., R. Ray Willoughby, 3701 N. Broad St., Robert S. Alston, 121 W. Walnut Lane, Gtn., Joseph P. Garvey, 3607 Baring St., Joseph A. Langbord, 2045 Spruce St., William Charles Wood, 1930 Chestnut St., Philadelphia. *Removal*—B. Franklin Royer from Philadelphia to Tunkhannock (Wyo. Co.); Edgar H. Weber from Narberth to 913 E. Gum St., Evansville, Indiana. *Death*—Charles C. Biedert, Philadelphia (Univ. Pa., '97), July 10, aged 60; W. Edgar Christie, Philadelphia (Jeff. Med. Coll., '17), July 29, age 40.

SOMERSET: *Removal*—I. V. Miller from Berlin to U. S. Marine Hospital, Stapleton, N. Y.

WAYNE-PIKE: *Reinstated Member*—Hugh Stevenson, Waymart.

County Society Reports

ERIE

Sept. 4, 1934

Stanley P. Reimann, of Philadelphia, was the guest speaker on "Studies in Cell Growth with Particular Reference to Neoplasia." Nearly 100 physicians and guests attended the meeting, held in Hamot Hospital Auditorium, Erie, President Frank B. Krimmel in the chair.

Dr. Reimann drew freely from old and recent research developments to supplement his own studies in cell activity. Normal body development implies normal growth, normal differentiation, and normal organization. Virchow's original idea has been so reversed that the present thought is that the protoplasm divides to form the cells, the maturity occurring by reason of differentiation into the specific type of cell. These cells by organization grow to form an harmonious part such as the arm or leg or a viscus. The multiplication of cells is stopped by organization, this latter representing an inherited complement, passed on from parent and grandparent. In contradistinction to normal parts, a tumor does not properly organize its protoplasm, indicative of a fundamental inherited trait. Environmental influences are truly but secondary factors in the etiology of neoplastic disease, acting probably upon the internal composition of the cells to vary their physicochemical properties.

What is the difference in the chemical behavior of a cell in division and one not in division? Hammett and Reimann have isolated a complex sulphur of the sulphydrol group which is instrumental in increasing cell growth, causing more cells to form in a given time. Studying first onions and other plants, these investigators have established the value of this chemical in promoting cell activity in eggs, in rats and mice, and later in humans. Sulphydrol with phenol added has proved effective as thiocresol in increasing the rate of healing in chronic ulcers.

The use of this chemical experimentally has helped along the study of neoplasia. Virchow posed the question as to what would happen if more cells are formed than needed in a part. With the use of sulphydrol it has been found that with more cells produced, the differentiation becomes more complex and a greater degree of organization occurs. A mere increase in the number of cells, therefore, will not cause the development of a tumor, for tumor cells are not organized. A differentiated cell does not divide; this factor has been lost in the differentiation. In a tumor, the cells are replaced by cells of a lower degree of differentiation. Repair and physiologic hyperplasias also come from undifferentiated cells.

How much differentiation must be present to inhibit cell division? Liver cells are not specialized, and are known to divide. Timing of cell division controls orderly growth; differentiation and organization can be thrown out of gear by environmental changes.

An embryonal cell is one in which the potencies are normal, but remain to be determined; the potencies of neoplastic cells are not normal—the term embryonal should not be used in neoplasia. Within the cells are the inherited potencies passed on from the fertilized ovum. With cell division, each group retains potencies along certain lines. Tumor tissue does not differentiate properly and never organizes. The term "undifferentiated" might better be used to designate the so-called "embryonal" type.

A neoplasm is a mass of cells arising from and continuing to proliferate as a result of and in direct proportion to internal qualitative differences from other cells of the organisms with respect to the potencies of differentiation and organization particularly. Tumors do have function and do manufacture materials and secretions simulating normal tissue.

RALPH D. BACON, *Reporter.*

HUNTINGDON

Aug. 15, 1934

The physicians, dentists and pharmacists of the county held a picnic at the Juniata Valley Colony Club near Mt. Union. An afternoon of sports events was followed by a dinner and an evening of competitive parlor games. Families and friends of members of the professions were guests.

Sept. 13

The meeting was held at the J. C. Blair Hospital, Vice President Walter Orthner in the chair. The request of Raymond R. Decker, Lewisport, for transfer to the Mifflin County Society was granted.

Attention was brought to the activities of a pharmaceutical representative to have physicians circularize their patients asking to have children vaccinated against pertussis. This firm would provide the cards upon purchase of their vaccine. The society unanimously passed the following resolution: "That we are opposed to all forms of indirect advertising such as cards to patients seeking them to come to our individual offices for treatment."

Howard V. Locke presented the following case report: Male, age 50; well built, heavy man, presenting no past medical history prior to July, 1927. An attack of abdominal pain the patient attributed to the eating of cucumbers. The pain was diffuse with a little predominance over the appendix, subsiding during the night. For one week had only slight pains but continued to work. Temperature then rose to 101° F., and a mass resembling an appendiceal abscess noted. Operation revealed the abscess, which was drained, and appendix not removed. Two years later patient suffered a gas attack and became jaundiced. The following day removed to hospital, roentgenogram showing thickening of the gallbladder. Returned home in 10 days. Two years later had an attack of severe pain mainly over precordial region and radiating to the back. The temperature, pulse and respiration were normal. Pain relieved by narcotics. On the third day had temperature increase of 3 to 5 degrees. There was no rigidity and only slight tenderness over the appendix. Taken to hospital and operated upon on the third day. On opening the abdomen free bile was found in the peritoneal cavity from a perforated gallbladder, which contained 32 stones. The patient's condition did not permit removal of the gallbladder, therefore, it was only drained. After a month he returned home and has felt well since.

In discussion, Howard C. Frantz stated that in appendiceal abscesses it was a good policy to drain and leave other things alone. Fatalities increase in accordance with the amount of interference at such times. Cloy G. Brumbaugh said that in the experience of the operators at this hospital it was found that if the abscess had walled itself off, and appendix was easily gotten at then it should be removed. If not, and it was necessary to break down the defenses nature had erected then the appendix should be left alone. John M. Keichline said that roentgen-ray evidence often shows that

there can be a concurrent inflammation of the gallbladder and the appendix.

Cloy G. Brumbaugh reported a case of eclampsia, stressing as the main point that in eclamptic convulsions morphine should be given early and often in sufficient doses to control the spasms. The pregnancy should not be interrupted until the convulsions are controlled.

WALTER ORTHNER, *Reporter.*

LANCASTER

June 6, 1934

There were two sessions—that in the afternoon being in the form of a clinic. Warren Vaughan of Richmond, Va., read a paper on "Allergy." The meetings were held in Keplar Auditorium at the Y. W. C. A. Building in order to accommodate the large attendance. Dr. and Mrs. Vaughan were guests of Dr. and Mrs. Willis H. Lefever of Lancaster at dinner at the Lancaster Country Club on the day of the meeting.

Sept. 5

Chevalier L. Jackson of Temple University Medical School, Philadelphia, spoke on "Indications for Bronchoscopy." He said in part:

(1). One of the best known indications is a foreign body situated somewhere in the bronchial tree. This constitutes 5 to 10 per cent of the work of the bronchoscopist. A foreign body will produce bronchial obstruction either by a by-pass valve; a check valve; or a stop valve. The by-pass valve will produce a wheeze, which is often the only symptom noted. The check valve type will produce obstructive emphysema which can be detected by fluoroscopy and by roentgenograms taken on deep inspiration and deep expiration. The stop valve type will produce obstructive atelectasis.

(2). Benign neoplasms will produce obstruction and are a frequent finding on diagnostic bronchoscopy. These include papillomas, lipomas, and granulation tissue.

(3). Carcinoma of the bronchus is being diagnosed with much greater frequency in the past few years. The only hope for these cases is an early diagnosis—followed by lobectomy. Radium seeds and deep roentgen therapy are sometimes helpful.

(4). Tuberculosis constitutes a definite indication for bronchoscopy when there is any question as to the exact diagnosis. The procedure is not advisable if the patient has a tuberculous larynx and is not continued in any case after a frank diagnosis of tuberculosis is made on microscopic examination.

(5). Cases of postoperative atelectasis which have not cleared up after a few days of medical treatment should be bronchoscoped and the tenacious mucus aspirated from the bronchus. This early treatment will frequently save a patient many months of illness.

(6). Bronchiectasis is a common indication for bronchoscopy. Many cases are helped after repeated aspirations of pus. When the condition is old and chronic, little hope can be entertained for complete restoration to normalcy, accordingly after several weeks, consultation with the surgical staff is requested and occasionally some surgical procedure is found helpful, *e. g.*, phrenic exeresis or thoracoplasty.

In bilateral bronchiectasis it is highly important to study the accessory nasal sinuses and to treat these if necessary.

(7). An empyema collection cannot of course be removed by the bronchoscope but in many of these cases, the true cause of the disease in the pleura can be detected by bronchoscopy only. For this reason all cases of empyema of obscure cause should be bronchoscoped.

(8). Lung abscess in the acute stage, especially the postpneumonic and the posttonsillectomic, can best be treated by this method. Later when the walls are fibrotic, the results to be expected are greatly diminished.

(9). In asthma, bronchoscopy frequently gives great relief, even if carried out at infrequent intervals. Secretions are aspirated and occasionally specimens are sent for bacteriologic study and for autogenous vaccines.

WILHELMINA S. SCOTT, *Reporter*.

LUZERNE

Sept. 4, 1934

The meeting was held in the Medical Building, Wilkes-Barre, President Edward W. Bixby presiding. Vincent T. Curtin, Scranton, read a paper on "The Childhood Heart Disease." He said in part: This paper is based on the observation of 200 children with heart disease seen in St. Christopher's Hospital in Philadelphia. The object is to see the cardiac child in the office or at the bedside. The ages were 6 weeks to 14 years; 176 had organic heart disease, and 24 functional heart disease. Of the 176 cases, 40 were congenital and one per cent were acquired cases. The high incidence of the congenital cases is because many of these do not live long. Of the acquired group 119 died, because of rheumatic heart disease.

Functional murmurs in children are important and must be diagnosed correctly in order to relieve the mother of anxiety that her child has heart trouble. This murmur is rare under age 4 and decreases after puberty. The types are cardiopulmonary, accidental, and the venous hum. It is common in an anemic child.

The history is of more importance in the diagnosis of functional murmurs than is the character of it. The absence of its transmission is important, the absence of the accentuation of the pulmonic second sound, and the absence of cardiac enlargement are important in the diagnosis.

Pulmonary stenosis was found in 12 cases with other defects. Cyanosis is the most marked symptom. The murmur is heard over the whole heart, and is transmitted upward. The heart is enlarged to the right. Prognosis depends upon the degree of narrowing.

Can congenial heart disease disappear in infancy? Some say, No.

Of the 134 cases of acquired heart disease 119 were of the rheumatic type. Many followed a single attack. Mitral regurgitant murmurs were the most common found, 70 in number, 36 being double mitral lesions. Prognosis is good after tonsillitis alone but worse after rheumatic fever.

Correct diagnosis is very important. The adoption of the classification of the American Heart Association aids in making a correct one. For the dyspnea codeine and morphine are more valuable than digitalis between age 7 and 14. Digitalis was of doubtful value in 24 cases with decompensation. Powdered whole leaf is better than the tincture. Because of its accumulative action and late manifestation of accumulation digitalis is dangerous.

Children who can get about, with restricted exercise may enter physical education but not to the full amount

and there should be no stair climbing. Most of their time should be spent in bed. Close observation between school-teacher and nurse is essential. Salicylates and amidopyrine are of value.

MARJORIE E. REED, *Reporter*.

WARREN

Aug. 20, 1934

The meeting was held at the Conewango Club; 27 members and 4 guests attended.

B. Franklin Royer, representing the State Society, explained the workings of the Child Health program and gave reasons why it will pay the general practitioner to get behind it and give it every possible cooperation.

1. If the examinations are made as they should be in a thorough manner they will give the physician an excellent experience.

2. Organized medicine will be credited with being able to carry on and promote welfare work, a duty which otherwise will be entrusted to laymen or State officials.

3. Each physician will keep in touch with his own patients who when once off the bread line may be able to remunerate him properly.

4. The lay assistants, usually young women, will become educated and will be able to judge the skill needed in such examinations and will be advocates of its general desirability.

5. It will uncover defects in time to be of value in preventive medicine.

Dr. Royer believed that the examination should take up at least 20 minutes for each child and that it should be done at the convenience of the physician and of only 5 or 6 children at a session, so that there might be ample time to explain to the parent the proper kind of diet and treatment necessary if defects or malnutrition were found.

He believed the failure of periodic examination of the adult program was due to improper recording and registering of facts found and he emphasized the necessity of having sufficient assistance in filling out the blanks supplied by the committee.

He also stated that if the public once sensed the importance of this work, funds would be available to care for those needing corrective measures.

Clayton W. Fortune, of Erie, gave a very suggestive talk on "Open or Operative Treatment of Fractures." He said in part: The better the anatomic perfection obtained the more perfect function will be. Fractures might be classified as: Those never to be operated upon; those always to be operated upon; and those left to the discretion of the surgeon.

Roentgenograms were shown in which screws and plates were used to keep the fragments in position. He also called attention to the necessity of obtaining lateral views of the bone in addition to the anteroposterior view. The bad results in intracapsular fractures of the hip are often due to wrong roentgen-ray interpretation. In younger persons open method is desirable early if the result is unsatisfactory. Convalescence will be much shortened.

The Sherman vanadium steel plate was described. Elbow fractures, condylar fractures, even in children, may need operation to prevent deformity. Plates may be left in simple fractures but in compound fractures they are removed.

In fractures of the radius in adults the head of the radius may have to be removed before good results are obtainable. In children the epiphysis can be replaced and manipulated but not removed.

Dinner was served. Roy L. Young, A. Follmer Yerg, and Paul and Adelaide Weston were the hosts.
MICHAEL V. BALL, *Reporter*.

MEETING OF THE SECOND COUNCILOR DISTRICT

The Second Councilor District meeting was held at Plymouth Country Club, Montgomery County, Sept. 11, 1934, with 125 in attendance.

District Councilor Edgar S. Buyers presided. An address of welcome was made by Joseph E. Beideman, president of the Montgomery County Medical Society.

The District Censors of various counties reported as follows:

Berks: Richard C. Travis, secretary of Berks County Medical Society, in the absence of District Censor Irvin H. Hartman gave the report. Bucks: District Censor William G. Moyer gave the report. Chester: In the absence of District Censor U. Grant Gifford, the report was given by Joseph Scattergood, secretary of the Chester County Medical Society. Delaware: District Censor J. Clinton Starbuck gave the report. Montgomery: District Censor John T. MacDonald gave the report. Schuylkill: In the absence of District Censor James A. Lessig, secretary Arthur B. Fleming submitted the report.

Merchant C. Householder, of Pottsville, gave the history of the Schuylkill County Medical Society, which is the fifth consecutive history submitted, the series to be ended next year with the history of Berks County. District Councilor Buyers called attention to the valuable addition these histories will be to the archives of the State Medical Society.

John O. Bower, of Philadelphia, chairman of the State Society Committee on Appendicitis Mortality, gave a talk (with slides) on appendicitis mortality.

William J. McConnell, Philadelphia, member of the State Society Committee on Mental Hygiene, gave a comprehensive talk on mental hygiene.

Luncheon was served. At the afternoon session Mrs. Robert Tomlinson, Wilmington, Del., president of the Woman's Auxiliary to the American Medical Association, and Mrs. Edward Lyon, president of the State Auxiliary, responded with short addresses.

The following having practiced medicine for 50 years, were presented with a testimonial: John K. Evans, Malvern, Chester County; Alice R. Easby, Media, Delaware County; and Robert G. Gamble, Haverford, Montgomery County.

Dr. McConnell, Philadelphia, announced that on October 6, the Saturday morning clinics were to be resumed at the Philadelphia General Hospital, and all physicians were invited, but must present for admission their registration card from the State of Pennsylvania.

Chauncey L. Palmer, of Pittsburgh, chairman of the State Society's Committee on Public Health Legislation, spoke on sensitizing the legislature. He referred to organizing in each county a public health legislation conference, consisting of 2 members of the nursing profession; 2 members from the pharmaceutical profession; 2, from dentistry; 2, from the hospitals; and 2 from the Woman's Auxiliary. This committee was to use its influence in contacting the legislators, and offering to coöperate with them and assist in every way

possible to formulate bills which will be favorable to public health.

Leonard G. Rowntree, director of the Philadelphia Institute on Medical Research, gave an address on "Arthritis and its Treatment."

President-elect Moses Behrend, of Philadelphia, urged all to follow Dr. Palmer's outline, and become legislative-conscious. He stressed the necessity of helping the administration concerning socialized medicine.

Chairman William H. Mayer, Pittsburgh, Public Relations Committee, spoke on public relations, and asked the support of all on the legislative problems.

Frank C. Hammond, Philadelphia, editor of the PENNSYLVANIA MEDICAL JOURNAL, urged all to read the State JOURNAL in order to be kept in touch with the various programs, and in order to get some idea of organized medicine, and to know why the State Society's officers will need 100 per cent coöperation.

Trustee and Councilor George C. Yeager, representing the First District, brought greetings from Philadelphia County.

Arthur C. Morgan, a former president of the State Medical Society, urged the necessity for giving full support to the Committee on Public Health Legislation.

The Woman's Auxiliary conducted a morning session consisting of an intensive program of Welfare and Public Relief. The auxiliary members joined the medical society members for luncheon.

MEETING OF THE FOURTH COUNCILOR DISTRICT COMMISSION

A councilor commission meeting of the Fourth Councilor District was held at the Berwick Hotel, Berwick, September 13. The meeting opened with a luncheon and was followed by a roundtable discussion. All county societies but one were represented at the meeting.

The discussion was so arranged that the members present were able to take back to their respective counties some knowledge of the working conditions in the State Medical Society and what to expect at the Wilkes-Barre convention.

After a discussion of the State Medical Society's different departments, the question of the relationship of the medical profession to the public was discussed in a paper on "Medical Economics." This was followed by a short debate for and against the employment of a paid lobbyist at Harrisburg. The physicians in the Fourth Councilor District who are eligible to membership, but not members, of the State Society were discussed. The questions of "Child Health" and newspaper columns as a means of making our position known to the public were also considered.

K. G. Weckel and H. C. Jackson, of the University of Wisconsin, have developed a new method for increasing the vitamin D content of evaporated milk on a commercial scale. The process includes the use of a specially devised machine which permits the hot evaporated milk to flow in a thin film over an inner corrugated surface while it is being exposed to the ultraviolet rays produced by a carbon arc. If the new irradiated evaporated milk is diluted with an equal part of water it has the same amount of rickets-preventing vitamin D per quart, which is 50 Steenbock units, or about 4 to 5 times that of normal milk, as is required for the ordinary irradiated whole milk now on the market.

The Woman's Auxiliary to The Medical Society of the State of Pennsylvania

MRS. WILMER KRUSEN, *Editor*, 17 Baily Road, Lansdowne, Pa.

COUNTY AUXILIARY REPORTS

Berks.—The auxiliary members were invited to be guests of Mrs. Fred Knoll at her country home at Oley Valley, one of the most beautiful spots in the country, on the afternoon of September 10. Each guest was requested to bring a soup dish, coffee cup, and soup spoon. While the party was largely social as befitting the first meeting after the summer holidays still time was given to discuss interesting plans for the coming season.

Echoes from the Cleveland Convention were given by Mrs. Cecil F. Freed. The reception committee were Mrs. Hiester Bucher and Mrs. Frank P. Lytle.

Butler.—The meeting of the Ninth Councilor District was held at the home of Mrs. Leslie R. Hazlett on Oct. 25, 1933. Allegheny, Indiana, Venango, Clarion, and Butler Counties were represented. Mrs. Hazlett entertained with three songs. Discussion of work in the various counties was carried on under the leadership of Mrs. William J. Armstrong.

Miss M. Wilson, superintendent of the Butler Hospital, reported on the needs of the institution and expressed her appreciation of the success of Donation Day during which the hospital received fruits, vegetables, honey, *etc.*, to the extent of \$500 or \$600 value.

At the close of the meeting tea was served which gave the women an opportunity to become personally acquainted.

On Dec. 12, 1933, Mrs. John L. Grossman, chairman, Public Health Committee, entertained the members with motion pictures on "The Conquest of Diphtheria" and "Too Many Pounds."

Dr. Mary P. St. Clair spoke on the value of periodic health examination. She said such examinations prevented illnesses and prolonged life.

Arrangements were made to furnish the hospital with two Christmas trees.

On March 13, 1934, the nominating committee was appointed as follows: Mrs. Ralph W. Walker, Mrs. John V. Cowden, and Mrs. J. M. Dunkle.

Arrangements were made for the luncheon in June. Twenty-five dollars was appropriated to buy rugs for the doctors' room at the hospital.

On June 12, 1934, a luncheon was held at the Nixon Hotel; 23 members were present and enjoyed a delightful afternoon.

The report of the nominating committee was read and accepted, the following being named officers for the coming year: President, Mrs. D. Gordon Jones; vice presidents, first, Mrs. Thomas McC. Maxwell; second, Mrs. A. Henry Ziegler; recording secretary, Mrs. John L. Grossman; treasurer, Mrs. W. LeRoy Eisler; *Hygeia* chairman, Mrs. Guy A. Hunt.

Mrs. Hazlett spoke on "Archives of Butler County."

Dauphin.—The auxiliary opened the autumn season with a meeting of the executive committee on the morning of September 10 at the Academy of Medicine.

On Tuesday, September 18, the first stated meeting followed a luncheon.

The speakers at this meeting were Mrs. S. Dana Sutliff, Councilor of the Fifth District, and Mrs. Henry Taylor, executive secretary of the Tuberculosis Society. The "Melody Boys" entertained with music.

Mrs. Taylor spoke of the work done during the summer at Camp Christmas Seal. The hostess of the day was Mrs. Edward R. Plank who was ably assisted by Mesdames Whipple, Myers, Phillips, Hartman, and Albright.

Erie.—The first meeting was held on September 10 at Fairplain, summer home of Mrs. J. Armin Stackhouse. Entertainment was in the form of an afternoon tea.

Plans for the coming year's work were outlined by the president, Mrs. Clayton Fortune, and delegates were elected for the State Convention at Wilkes-Barre.

Lehigh.—In August, the auxiliary assisted the Junior Woman's Club and Lion's Club in giving a benefit card party and dance at Dorney Park, for the blind of Lehigh County. Twelve hundred persons attended, which netted a substantial sum for this worthy cause.

A garden party was held at the home of Dr. and Mrs. Carl J. Newhart, of Hokendauqua on September 11. Mrs. Charles K. Rose and her committee had charge of cards. There were 23 tables of bridge, and attractive favors for the winners. Refreshments were served.

A business meeting was held; the delegates and alternates for the State Convention were appointed. An interesting program was planned for the fall meetings.

Montgomery.—The auxiliary held its meeting at the Nurses' Home, Sept. 5, 1934, Mrs. Herbert Shearer presided. Routine business was discussed and reports from all committees received.

One hundred dollars had been sent to the Medical Benevolence Fund; and \$100 had been donated to the Montgomery County Child Health Committee of which Mrs. H. B. Wunderle is vice chairman.

Delegates appointed to the State Convention to be held in Wilkes-Barre, Oct. 1 to 4, 1934, are Mrs. Herbert B. Shearer, Mrs. Joseph E. Beideman, and Mrs. Camille J. Flotte; alternates, Mrs. J. Newton Hunsberger, Mrs. Edgar S. Buyers, and Mrs. J. Lawrence Eisenberg.

The Second District Councilor Meeting was held Sept. 13, 1934, at the Plymouth Country Club. Mrs. Hunsberger and Mrs. Buyers gave reports of the national convention held in Cleveland, Ohio. After the business meeting, Mrs. Shearer gave an interesting talk on the founding of the Schwenkfelder Church which is celebrating its 200th Anniversary this year. Refreshments were served.

Second Councilor District.—Notwithstanding the inclemency of the day a large number of members of the various counties comprising the Second Councilor District met at the Plymouth Country Club near Norristown for their meeting held at the same time as the meeting of the physicians of the same district.

Mrs. John A. Farrell, of West Chester, District Councilor, presided. Most encouraging reports were heard of fine work done and ambitious plans being made by the various counties in the district after which addresses were given by Mrs. Robert W. Tomlinson, national president, and Mrs. Edward Lyon, State president. The pleasing news of the day was that the one remaining county in this district which was not yet organized—Schuylkill—would meet for organization on September 18, at Pottsville.

Mrs. Moore and Mrs. Santee who have been busy all summer making contacts with those eligible to membership in Schuylkill County were present and reported that there would be an opening enrollment of 60 women. With such fine leadership and so many workers this new sister organization bids fair to become a leader from the start.

One of the reports from a county chairman at this meeting quoted the physicians of the locality as saying that they felt the auxiliary had become indispensable. That is the desire of the members—that this composite wife of the composite physicians should be as indispensable as the perfect wife of the individual physician is to him.

Following the meeting which was held in the morning the members joined the physicians at luncheon and then listened to the interesting program of the afternoon.

Seventh Councilor District.—The annual luncheon and meeting of the Seventh Councilor District, composed of Lycoming, Tioga, Clinton, Potter, Elk, and Cameron Counties was held July 11 at the Woman's Club at Williamsport.

Seventy-five members were in attendance including 10 members of the State Board and 4 of the county presidents. Remarks were made by Mrs. Edward Lyon, State president, and Mrs. Larry Dodd Sargent, president-elect. Reports of the county units and music preceded an address by Mrs. Berthold Strauss of Elkins Park, vice chairman of the Emergency Child Health Committee.

Medical News

Birth

TO DR. AND MRS. ALBERT C. HAAS, Williamsport, a daughter, Mary Rich Haas, Aug. 14.

Engagement

MISS MARGARET C. KLEVAN, daughter of Dr. and Mrs. Oscar Jesse Klevan, West Chester, and Mr. W. Poyntell Johnston Canby, Jr., Downingtown.

Marriages

MISS MYRA DISTERDICK to Dr. James R. Hart, both of Erie, Aug. 22.

MISS JANNETTE HARKINS to Dr. John J. Marz, both of Erie, Aug. 29.

MISS MINNIE SNYDER, R. N., to Dr. Morris G. Curtis, Williamsport, recently.

MRS. HELEN HAYES, Philadelphia, to Dr. Carl H. Senn, Williamsport, Aug. 20.

MISS ELIZABETH DARLINGTON SCATTERGOOD, daughter of Dr. and Mrs. Joseph Scattergood, West Chester, to Mr. Edward West Carson, Lansdowne, Sept. 22.

Deaths

CHARLES FOSTER CAMPBELL, Sunbury: University of Pennsylvania School of Medicine, 1893; aged 67; Sept 10, after a lingering illness. Dr. Campbell was born in

Upper Augusta, September 17, 1867. He was educated in the public schools and then attended Bucknell University, being a member of its first football team, taking part in the earliest intercollegiate games of that institution, and graduating in 1891 with the degree of A.B. Practiced 3 years in Philadelphia, and later moved to Sunbury where he spent the remainder of his life. For a long time he was physician of the Mary M. Packer Hospital staff and was a former member of the Northumberland County Medical Society. Dr. Campbell had retired from practice. He is survived by his widow and a son.

SOLOMON C. B. FOGEL, Allentown; University of Pennsylvania School of Medicine, 1874; aged 85; Aug. 26, from senility. Dr. Fogel was born in Fogelsville, Pa., a son of the late Judge and Mrs. Willoughby Fogel, who was associate judge of the Lehigh County Courts from 1856 to 1866. He attended the Fogelsville schools, and was one of the early graduates of Muhlenberg College. He practiced medicine in Fogelsville from the time of graduation until 1899 when he moved to Allentown. After being in active practice for 60 years, Dr. Fogel retired on account of illness about 6 months ago, having received office patients up until that time.

He was a member of his county and State medical societies. He is survived by 2 sons.

SAMUEL PILGRAM GERHARD, Philadelphia; Medico-Chirurgical College of Philadelphia, 1891; Jefferson Medical College, 1893; aged 67; Sept. 9, of coronary disease. He was a son of the late Dr. Abraham S. and Amelia J. Gerhard. His father was one of the founders and members of the faculty of Medico-Chirurgical College. Dr. Gerhard was graduated from the Boys Central High School, Philadelphia, 1888. He was instructor in chemistry at the Medico-Chirurgical College from 1889 to 1891, and was instructor in physical diagnosis at Temple University Medical School for several years; treasurer of the Medico-Legal Society of Philadelphia, a former president; a member of the Northwestern Medical Society, his county and State societies; and a Fellow of the A. M. A. For several years he was chairman of the Committee on Archives of the Philadelphia County Medical Society; also chairman of the committee and designer of the official emblem of the American Medical Association. He was a member of the First Regiment National Guards of Pennsylvania from 1888 to 1908, the Veteran Corp, and Old Guard D Company. He is survived by his widow and a brother.

RALPH SALEM HEILMAN, Sharon; University of Pennsylvania School of Medicine, 1907; served during the World War; medical director of the Protected Home Circle; aged 54; July 19.

AMBROSE C. HERMAN, Lansdale; University of Pennsylvania School of Medicine, 1881; aged 76; Aug. 31, after an illness of more than a year. Dr. Herman was born at Maxatawny, Berks Co.; graduated from the Keystone State Normal School at the age of 14; and was graduated from Franklin and Marshall College in 1877. He retired last year after practicing in Lansdale since 1890. He was a member of his county and State societies and the A. M. A. He is survived by his wife and 4 children.

JAMES EDWIN HOUGHTON, lieutenant commander, Medical Corps, United States Navy; May 3, suddenly at Washington, D. C. Dr. Houghton was born at Northumberland, Pa., Aug. 11, 1891. He was graduated in 1917 from the Medical School of George Washington University, Washington, D. C., and at once entered the Medical Corps of the Navy. While serving at the U. S. Naval Hospital at Philadelphia, he was lecturer on tropical medicine at Jefferson Medical College. At the time of his death he was director of laboratories at the U. S. Naval Medical School, Washington, D. C., and professor of tropical medicine there. A wife and 2 children survive.

EDWIN A. JARECKI, Philadelphia; University of Michigan Medical School, 1891; aged 67; Sept. 9, in the Jewish Hospital, from coronary disease.

Dr. Jarecki for about 40 years was chief resident of the Jewish Hospital, devoting his activities entirely to that institution. He was an outstanding character whose devotion to the institution he served is worthy of emulation. He knew the condition of all patients in the hospital at any hour of the day or night, rarely leaving the hospital for recreation. For a number of years he made his home in the hospital better to serve the patients. His charities were conducted without any ostentation. He is survived by a niece.

ALEXANDER KAHN, Philadelphia; Jefferson Medical College, 1881; aged 74; May 12.

WILLIAM G. KLEINSTUBER, Graterford; Jefferson Medical College, 1893; aged 64; Aug. 14. Dr. Kleinstuber practiced in Wilmington, Del., for about 20 years. A widow survives.

JAY CLARENCE KNIPE, Philadelphia; Jefferson Medical College, 1890; aged 65; Sept. 2, coronary disease. Dr. Knipe was born in Norristown, Pa., Jan. 12, 1869, a son of Dr. and Mrs. Jacob Oliver Knipe. He was educated in the public schools; served an internship at the Polyclinic Hospital, Philadelphia, and was appointed chief resident physician at the Jewish Hospital, Philadelphia, in which he remained 4 years. He then went to Vienna for a special study of ophthalmology. Upon his return to Philadelphia he was appointed assistant at the Wills Eye Hospital, serving for 8 years; was chief of the eye clinics at the Howard and Jefferson Hospitals; assistant ophthalmologist at the Philadelphia General Hospital; senior attending ophthalmologist at the Jewish Hospital; and assistant professor of ophthalmology at the Jefferson Medical College. He was a member of his county and State societies, the Medico-Legal Society of Philadelphia, the Northwestern Medical Society, the Northern Medical Society, the Philadelphia Pathological Society, the Medical Club of Philadelphia, the Æsculapian Club; and a Fellow of the A. M. A., and of the American Academy of Ophthalmology and Otolaryngology. Dr. Knipe is survived by his wife, 3 children, and 3 brothers, 2 of whom are physicians, Reinoehl Knipe, Norristown, and Normal L. Knipe, Philadelphia.

CHARLES HOWARD McDEVITT, Philadelphia; University of Pennsylvania School of Medicine, 1900; aged 58; Sept. 11, at Temple University Hospital, from cerebral hemorrhage. Dr. McDevitt was born in Philadelphia, June 21, 1876, and was a graduate of Germantown Academy. He served his internship at the Reading Hospital. He was on the staff of the Orthopedic Department of Temple University Hospital, and for several years was on the Orthopedic Staff of the Northwestern General Hospital. He was a member of his county and State medical societies, and a Fellow of the A. M. A.; also a member of the Medical Examiners Association of Philadelphia, and the Philadelphia Clinical Association. He is survived by his wife and 2 sons, one of whom, Dr. Charles Howard McDevitt, Jr., is completing his internship at Temple University Hospital.

CHARLES WILLIS MANY, Doylestown; Long Island College Hospital, 1894; served during the World War; county health officer; aged 66; July 27, of myocarditis.

JAMES LUTHER MOORE, New Stanton; University of Pittsburgh School of Medicine, 1932; aged 32; in July.

HARRY WILLRICH OYER, Pittsburgh; Jefferson Medical College, 1893; Aug. 2, in Toronto, Canada.

WILLIAM F. QUINLIVAN, Philadelphia; Maryland Medical College, Baltimore, 1907; aged 54; Sept. 8.

Son of Dr. AND MRS. HUGH R. ROBERTSON, Warren; aged 3; Aug. 4, from an attack of meningitis.

EDWARD FRANCIS SCANLON, Scranton; College of Physicians and Surgeons of Baltimore, 1890; aged 78;

Aug. 21. He is survived by his widow, a daughter, and 4 sons.

WYLLIE JOSEPH STEWART, Coraopolis; University of Pittsburgh School of Medicine, 1900; aged 61; Aug. 26.

GEORGE PARKIN STUBBS, Pasadena, Calif. (formerly of Philadelphia); Hahnemann Medical College of Philadelphia, 1890; aged 68; Aug. 16, in a Pasadena Hospital, from influenza. Dr. Stubbs is a retired surgeon, and survived by his widow and a son, Frederick George Stubbs, M.D., Philadelphia.

MARY HELEN THOMPSON, Philadelphia; Woman's Medical College of Pennsylvania, 1882; aged 80; Aug. 3. Dr. Thompson was born in Zanesville, O., and practiced from 1886 until shortly before her death in the Frankford district of Philadelphia. After graduation she was appointed assistant to Dr. Anna E. Bromall, at that time professor of obstetrics in the Woman's Medical College of Pennsylvania. Later she became interested in ophthalmology and was appointed on the clinical staff at the Wills Eye Hospital. For more than 25 years she was ophthalmologist at Sleighton Farm, of the Glen Mills School. She is survived by 3 sisters.

JEROME BUTZ WEIDA, Philadelphia; University of Vermont College of Medicine, 1883; Aug. 29.

Miscellaneous

DR. RUSSELL W. JOHNSTON entertained the staff of the Mary M. Packer Hospital at his home in Selinsgrove, Aug. 21.

BE SURE TO READ the article, "A Study of 35,000 Malpractice Suits," which appears on page 45 in this number of the JOURNAL.

DR. JOHN W. SHIRER, Pittsburgh, addressed the Greene County Medical Society at Waynesburg, Sept. 11, on "Preventable Deaths in Appendicitis."

ALL AUTOMOBILE ACCIDENTS involving personal injuries or damage of \$50 or over must be reported on special forms to the Department of Revenue, Division of Safety, Harrisburg.

DR. AND MRS. ROBERT C. BASTIAN and family left Williamsport, Sept. 4, for New Orleans, where Dr. Bastian will take a 2-year postgraduate course in eye, ear, nose, and throat at Tulane University.

A 5-DAY institute for doctor's helpers was held Aug. 20 to 24 at the University of Virginia under the auspices of the State Health Department. The program included lectures by physicians and nurses, and instruction in maternity and invalid care, as well as practical administration in bedside nursing.

THE ALVARENGA PRIZE for 1934, amounting to \$300, was awarded by the College of Physicians of Philadelphia to Dr. Ernst Gellhorn, professor of physiology, University of Illinois College of Medicine, for his essay entitled, "The Influence of Parathormone on the Neuromuscular System—An Experimental Analysis."

DR. FRED HOUDLETT ALBEE, New York City, was decorated at Camp Moore, Sea Girt, N. J., Aug. 16, by Governor Moore, with the New Jersey Distinguished Service Medal. The award was made "for exceptionally meritorious and distinguished service." He already had been decorated by France, Italy, Spain, Roumania, and Venezuela. Dr. Albee is chairman of the New Jersey Rehabilitation Commission, a post he has held since 1919.

THE ANNUAL OUTING of the Lycoming County Medical Society was held Aug. 10, at Larry's Creek Fish and Game Club House. Following the custom instituted 9 years ago of presenting to those members who had attained age 75 during the year, James W. Ritter, Jersey Shore, and William H. Follmer, Williamsport,

received leather bound albums containing their picture, history, a statement of appreciation, and the autographs of the members, and making them Nestors of the society.

THE INTERNATIONAL ASSEMBLY of the Inter-State Postgraduate Medical Association of North America will be held in the Public Auditorium, Philadelphia, Nov. 5 to 9. Many distinguished teachers and clinicians will appear on the program. A major list of the names of contributors to the program, with other information, appears on page 41 of this JOURNAL. All members of the State Society are invited to attend. Registration fee of \$5 admits members of the profession in good standing.

THE OMAHA MID-WEST Clinical Society will hold its annual meeting Oct. 29 to Nov. 2. The assembly headquarters will be at Hotel Paxton, 14th and Farnam Sts., Omaha, Neb. Dr. William H. Guy, Pittsburgh, will be one of the guest speakers. The purpose of the meetings of this society is "the bringing of postgraduate opportunity to the backdoor of the physician at a cost possible for all." The organization is nonpolitical and nonprofit making, all funds being used for the expenses incidental to a meeting of this type. A registration fee of \$5 is made.

THE EIGHTH SERIES of practical postgraduate courses open to members of county societies will be presented by the Allegheny County Medical Society, beginning in October. The classes are limited, the enrollment being from 6 to 10 in each group. The subjects to be considered are: The Dietetic Management of Metabolic Disorders (6 sessions); Obstetrics, Mannikin Demonstrations (8 sessions); Fundamentals of Everyday Dermatology, Diagnosis and Treatment (6 sessions); Slit-Lamp Microscopy of the Living Eye, and Ophthalmoscopy (10 sessions); Hyper- and Hypothyroidism (6 sessions); Acute Neurologic Conditions (8 sessions); Medical Emergencies (5 sessions); Orthopedic Surgery for the General Practitioner (7 sessions). These courses have always been oversubscribed in other years, and this has led to an enlargement of the number of subjects presented.

PHYSICIANS IN THE eastern part of the State have recently been visited by a middle-aged man, slender, sallow complexion, about 5 ft. 7 in. tall, giving the name of Ralph C. Davis and the story that he had pulmonary tuberculosis with cavitation and hemorrhages; that he was going to the mountains to recuperate, taking with him his sister (forging the name of a local nurse) who was to give him hypodermics of morphine whenever he had one of his frequent hemorrhages. He also said he was an insurance salesman and given a 6 months' leave of absence to recuperate in the mountains, and as he was 16 miles from a doctor he needed morphine, for which he was given prescriptions. In addition, he used thromboplastin to stop hemorrhages, showing an old box with the name on it. He pays by checks, found later to be worthless. Doctors take warning!

Book Reviews

A TEXTBOOK ON GYNECOLOGY. Arthur Hale Curtis.

The second edition appears as of July, 1934. The text has been amplified, which is of value to the general practitioners and specialists and to teachers in gynecology. It covers the subject very well in concise and compact form, and is recommended both to the practitioner and to the student. Philadelphia and London: W. B. Saunders Co., \$6.

THE MEDICAL AND ORTHOPEDIC MANAGEMENT OF CHRONIC ARTHRITIS. Ralph Pemberton, M.S., M.D., F.A.C.P., professor of medicine, Graduate School of Medicine, University of Pennsyl-

vania, chairman, American Committee for the Control of Rheumatism (Ligue Internationale contre le Rhumatisme); member, Council on Physical Therapy of the American Medical Association; physician to the Abington Memorial and the Bryn Mawr Hospitals; consultant to the Philadelphia Orthopedic Hospital and Infirmary for Nervous Diseases and to the Chester County Hospital; author of "Arthritis and Rheumatoid Conditions; Their Nature and Treatment," 1929; French translation, 1933; and Robert B. Osgood, A.B., M.D., F.A.C.S. John Ball and Buckminster Brown, professor emeritus of orthopedic surgery, Harvard Medical School; member, American Committee for the Control of Rheumatism (Ligue Internationale contre le Rhumatisme); member, Council on Physical Therapy of the American Medical Association; consulting surgeon, Boston Children's Hospital; member, Board of Consultants Massachusetts General Hospital; member, American, International, British (Hon.), Italian (Hon.), Scandinavian (Hon.), Belgian (Cor.), Orthopedic Associations. The Macmillan Co., New York City. 1934. \$5.00 net.

Dr. Ralph Pemberton of the Graduate School of the University of Pennsylvania and Dr. Robert B. Osgood, professor emeritus of Orthopedic Surgery of the Harvard Medical School, have united in bringing to the general practitioner and orthopedic surgeon, a book on the medical and orthopedic management of chronic arthritis.

It leads by easy stages through the history, classification, pathology, general disturbances, treatment, and general handling of the cases. The language is simple and clear and easily understood. The book is adorned with a splendid bibliography so that one who wants to go further will find a full reference list to consult. Most every form of treatment that has at any time been accredited in the treatment of arthritis is mentioned and evaluated so that we have a practical, up-to-date summary of the present-day knowledge in the care of this most troublesome disease.

There is some slight repetition that might be eliminated, but in view of the general value of the work, this is of little moment. It is evident that such intensive study of the condition is necessary, not only to classify the present knowledge, but to advance the knowledge of the condition because from the present indications, there is much room for improvement in the care of rheumatoid arthritis.

A TEXTBOOK OF HISTOLOGY: Alexander A. Maximow, late professor of anatomy, University of Chicago; and William Bloom, associate professor of anatomy, University of Chicago. Second edition, completely revised with 662 pages with 530 illustrations, some in colors. Philadelphia and London: W. B. Saunders Co., 1934. Cloth, \$7.00, net.

By the rearrangement of his text in the second edition, Dr. Bloom has greatly increased the value of his book for medical students. It is now adaptable for classroom work and no doubt it will be adopted by many medical schools.

It presents the known facts in a systematic way, fully illustrated, and at the same time, by its references to other possible findings in histology, it causes and encourages the students to solve these problems in histology.

Several chapters are especially outstanding, as the chapters on the Nervous System, Lymphatic System, Endocrine Glands, Mammary Glands, and Genital Systems.

It is outlined and made easy to read. Its excellent illustrations and references make it a valuable book for students in histology and histophysiology.

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PSYCHIATRY FROM THE STANDPOINT OF THE GENERAL PRACTITIONER*

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The physician is called upon to treat sick people. He may have been trained in medical school to think very little about these sick people but to concentrate his attention on diseases. He may pay little attention to the factors which make the patient an individual and distinguish him from his fellows. He may see in the patient nothing more than the embodiment of a disease which has a certain detailed symptomatology, etiology, prognosis, pathological anatomy, and treatment. With this point of view the practitioner may outline the treatment for the disease which is illustrated by his patient.

Within the last few decades there has been a growing recognition that the disease has been overemphasized, that the patient has been somewhat neglected. Physicians with great experience and much human sympathy have been dismayed by the impersonal attitude of scientifically trained physicians who are so dehumanized that they treat their patients with the precision and the detachment with which they treat their experimental guinea pigs and mice. Such an attitude may seem to bear the hallmark of science and therefore to be beyond criticism. This attitude towards the problems of medical practice may claim the authority of science only if science be very narrowly interpreted as being confined to the precincts of the laboratory and only if the actual phenomena of human nature be looked upon as outside the sphere of scientific observation. To do justice to his patient the physician must take into consideration not only the precise laws of the laboratory but also the laws which regulate the reaction of man to his environment even though these laws cannot be formulated in mathematical or precise physical terms. To treat the patient as a guinea pig, to look upon the specific human characteristics of the patient as

irrelevant, to neglect the life situation of the patient may be to ignore factors which are essential for understanding the symptoms of the patient. The emotional and instinctive life of the patient, the family atmosphere, the economic and social situation may be essential factors in understanding and treating patients whose symptoms may not at first suggest a complex origin. A consideration of these factors may make intelligible such symptoms as persistent headache, insomnia, gastro-intestinal disturbance, fainting and palpitation, variation in blood pressure, the frequency of attacks of asthma, refractive disorders, pelvic and abdominal complaints.

The physician who brings to the bedside or to the consulting room the attitude of the chemical or physiological laboratory is apt to deal with the clinical problem in an abstract way. In his concentration upon the abstract pathologic-physiologic situation he may neglect the psychologic setting in which the crux of the matter often lies.

The patient is a human being in trouble; he comes for help or he is brought sometimes against his own desire. The rôle of the physician is to study this human being together with his complaint or his incapacity and to determine what can be done to cure or to alleviate. With a wholesome social outlook the physician may consider what he as an individual or the community through its organized activities can do to prevent the occurrence of similar mishaps.

Modern medical thought, which has been progressing from a structural to a dynamic point of view, is beginning to stress the dynamics of the personality as well as the dynamics of the circulation and the digestion. The thought of this generation is less impressed by the appearances seen at the necropsy; it is less dominated by the individual organ and its structural damage.

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Rather it sees the static observations of the necropsy room on the broader dynamic background of the evolution of the clinical picture. Instead of thinking in terms merely of structural damage and clinical symptoms, the physician considers the specific demands upon the individual, his constitutional type of reaction, and the functional level of the efficiency of the various systems. Nutritional disorders are considered not in terms of inflammation and of ulcers but in terms of the special food components and of the complicated equipment by which the system assimilates these various components. One studies the effects on the system of undesirable elements such as the mineral poisons, *e. g.*, lead, or the absence of certain necessary components of the diet, *e. g.*, vitamins.

With regard to the defense of the individual against noxious organisms, one thinks not merely in terms of the specific organism and the familiar tissue damage but one thinks also in terms of the defensive equipment of the individual and his capacity to deal with the great variety of organismal irritants. In dealing with cardiovascular disorders one thinks less in terms of structural damage and more in terms of functional capacity and the relation of that functional capacity to the tasks imposed upon the individual. Before the individual case of illness the physician is confronted with a dynamic problem. He considers the reactions of the patient as indications of physiological processes working under certain difficulties. He tries to estimate the strain or the deprivation to which the individual is subject and the equipment of the individual for dealing with demands made upon him. He is prepared to step in if his interference seems advisable. He may modify the strain, supply some wanting factor, or support the reactive mechanisms of the individual.

As soon as the physician takes the patient with his complex human nature and his varied disabilities or discomforts as his task, he no longer thinks in terms of the old scholastic dualism of body and mind but he thinks in terms of the living organism dealing with the complex environment. This living organism, the patient, has to deal not only with the assimilation of suitable matter and energy from the physico-chemical environment. He has to deal with the continuous interchange between his own personality and the subtle forces of the cultural environment. He has to meet not only the strains of physical trauma and to defend himself against noxious chemical and organismal irritants. He is subject to psychic trauma; he has to deal with noxious social influences; he has to maintain not

only his own physiological equilibrium but also the internal equilibrium of personal forces, of instincts and emotions and individual cravings.

As the patient's resistance to germs and other noxious factors requires a review of the stock from which the patient has come and of the previous experiences of the patient, so the present resistance of the patient to environmental stresses and strains can be adequately estimated only by a similar review of the congenital endowment of the individual and of the life experiences through which he has passed. The task of the physician, no matter whether the complaint be that of vomiting or of delusional jealousy, is to review adequately the physiological mechanisms of the patient, the dynamic factors in his personality, and the domestic, economic, and social situations which may possibly have a bearing on the present disability.

Although these various viewpoints should be in the mind of every general practitioner, the individual physician will be more interested in one particular aspect of the total situation than in others. Some physicians will tend to concentrate on the physiological aspects of the situation; others will be more interested in the personal or psychological factors; others will take for their field the relation between the individual and the social forces in which he is immersed, paying special attention to the sociological aspects of disease.

As no one has the time, the energy, or the ability which would enable him to cover adequately all the various fields, it is natural that both clinical activity and research should tend to be specialized. It is important for the special worker to keep in mind that he is studying only one angle of the total situation, and it is important for the general practitioner to integrate the results from the specialized activities into a well-balanced formulation which does justice to the various aspects.

The psychiatrist has for his task that view of the total situation which involves the personal reactions of the individual, which involve his instinctive and emotional life, and the general forces in his personality. What he finds out about these forces is relevant not only to one special group of patients but to all patients, although in some it may be relevant to only a minor degree and be practically negligible. Such observations are relevant to a great number of patients in whom traditionally the personal side of the situation has been almost completely ignored.

The psychiatrist is interested in the general run of sick persons, especially from the point of

view of the rôle which personal or psychological factors play in the clinical picture and in the evolution of the illness. In a case of illness, whether it be anemia, pneumonia, or fracture, his special training and experience make the psychiatrist sensitive to aspects of the illness to which the general physician may not pay attention and which in many cases may be of little practical importance. In many cases the anemia, the pneumonia, the fracture may be satisfactorily studied and treated without specific attention to the psychology of the patient and to his social or economic background. On the other hand, in many cases of what appear to be rather clean-cut bodily ailments the personal factors are of greater importance than is generally recognized. It would be easy to furnish a list of cases of very diverse symptomatology in which the exclusive attention to the physiological or impersonal aspect of the disorder overlooked the most important factor in the whole problem. One might refer to cases of headache, of asthma, of gastro-intestinal symptoms, of genito-urinary symptoms, of pelvic disorder, of difficulty with vision, of insomnia, in which the personal difficulties of the patient, feelings of inferiority and of guilt, dissatisfaction with the marital or the social situation, were the most important factors in the situation. One would find in these histories that abdominal operations had been performed, orthopedic corsets applied, eyeglasses fitted, complicated impersonal treatment carried out with only partial benefit to the patient because the underlying emotional factors were neglected.

As a rule patients of this type are not seen by the psychiatrist. They are dealt with by the general practitioner or by other medical or surgical specialists. As the medical school comes to lay more stress in its teaching on the personal aspects of disease the medical profession in general will deal more adequately with problems of the type described. At the present moment this hitherto neglected view of disease is receiving increasing attention in general medical and surgical wards, and light is being thrown on such conditions as gastric ulcer, hypertension, hyperthyroidism.

The general practitioner now welcomes and utilizes the data as to the influence of the instinctive and emotional life and of the domestic, economic, and social situation of the patient on the ordinary somatic ailments. He can easily grasp the way in which instinctive and emotional tension reverberates throughout the body and makes demands upon the endocrine and visceral systems. He finds it of value to note the stresses

and strains to which the patient is exposed, the general hurry of his life, the lack of relaxation, the worry of occupational difficulties, the tension of a domestic situation.

The general practitioner is a little more timid in dealing with another and somewhat more complicated group of cases in which the personal factors are important; namely, the psychoneuroses. In this group are included cases which more specifically would be diagnosed hysteria, phobias, and compulsions as well as others in which the diagnosis is less precise. In hysteria the physical symptoms are not due to any simple disorder of a single organ or system but they represent repressed factors, unconventional desires, painful memories, childhood tendencies, compensatory reactions. The hysterical symptom is significant of personal difficulties, not of mere physiological disturbance. It represents the attempt of the patient to attain a certain peace of mind or to attain a certain external goal. Morbid fear also represents the presence of some repressed factor, some personal difficulty which is not frankly faced and tackled by the individual. It may be essentially the same problem as one meets in the hysterical, but owing to constitutional differences the patient does not develop a physical symptom but a morbid fear. In obsessions or compulsive thoughts and acts there is again the disguised expression of underlying factors which are not frankly recognized by the individual but which express themselves in this evasive way. The psychiatric review of these conditions takes the physician deep down into the roots of the human personality; it reveals the complexity of pleasure-seeking tendencies; it resurrects a great variety of childhood experiences; it reveals the presence of many crude and unacceptable desires and wishes. Such an analysis not only reveals the presence of unsuspected forces; it shows the complex disguises which the repressed factors may assume and demonstrates beneath the surface of the conscious life of the individual a play of subconscious forces which to some critics may seem quite incredible. Such demonstrations will prove convincing to the physician who cares to give a certain amount of interest and time to the study of human nature. He may, however, be alarmed at the complexity of the problem. He may read a detailed report of such a case with much interest but with the feeling that he can never himself have the time nor the subtlety to follow all its ramifications. The general practitioner, therefore, if he makes the diagnosis of hysteria or phobia or compulsion or if he evades a more precise diagnosis by using the general

term psychoneurosis, may feel that he cannot be expected to deal personally with the patient but must turn the patient over to some specialist. If this is not possible for various reasons, he may resign himself to treating the patient in a more or less superficial way by general reassurance and kindly encouragement.

The fact that the practitioner may not have the time nor the psychological training which enables him to see all the ramifications of these cases need not prevent him from dealing with them in a purposeful and efficient way. The development of the symptoms may be complex, but the fundamental problem is simple. The patient, no matter whether the symptom be a physical hysteria, a phobia, or a compulsion, is an individual who is having some personal difficulty. The difficulty is one which the patient, owing to various conventional factors, has not been able to meet frankly and intelligently. The opportunity of facing quite frankly and directly the real issues which are at the basis of the symptom may be the chief requirement of the patient. The subtle analysis of the symptoms in some cases may be essential for treatment but in others it may have comparatively little practical advantage.

In such a case, the general practitioner can bring to the patient the opportunity of discussing in the detached and unconventional atmosphere of the consulting room his real life problems, the ventilation of which may bring about all of the relief that is required. The biologic and psychologic knowledge of the physician may be of the greatest benefit to the patient. The wholesome attitude of the physician towards the problems involved in the sex life and in personal relations can be a valuable example to the patient.

It is well, therefore, for the physician if he has diagnosed a case of this type to realize that he can be of great use to his patient; in order to be so he must bring not a complicated psychologic technic nor erudition to the consulting room but a serious and honest attitude in the face of all the problems of human life. He does not need to pose as a specialist nor profess an insight into the condition beyond what he actually has; he need not hesitate to tell the patient that the situation is obscure. He can, however, tell the patient that he is sure that the clinical picture is due to underlying personal factors and that with the patient's coöperation he is willing to give up a certain amount of time to make an investigation of what they are.

Traditionally, psychiatry is not supposed to have much contact with the general run of pa-

tients with bodily complaints or with those milder degrees of maladaptation referred to as the psychoneuroses. Psychiatry, historically, has been more specifically concerned with what are called mental disorders, with those serious maladaptations which cripple the social efficiency of the individual and estrange him from his fellows. There has been a tendency in the past to separate these cases from other forms of illness. They have been referred to as "mental disorders" or "insanity" or "lunacy." They have been considered as far removed from the ordinary problems of the physician as the patients have been kept isolated not only from their fellow men but from their fellows with other forms of illness. The strict separation of mental disorders from the other disorders with which the physician deals is to a large extent a residual from the artificial separation of body and mind and from medieval superstitions and religious beliefs. It is possible nowadays to study the so-called mental case in the same biologic way in which one studies the ordinary patient. The disturbed function of any patient is considered in relation to the internal organization of the individual and the environmental stress to which he is exposed. The individual is reviewed without any artificial separation into the personal and impersonal factors by taking cognizance of the totality of human nature, paying attention to the intellectual functions as well as to the digestive functions, to the imagination as well as to the circulation, to the emotions as well as to the endocrine glands. Abstract terms such as digestion and imagination are not isolated substances or functions but are merely one aspect of the activity of a human being who not only lives and breathes but thinks and feels, adapts himself to a social environment and strives towards an ideal.

It is well for the physician, therefore, not to think in different terms of the patient with gastric ulcer or with tuberculosis and the patient with hysterical blindness or with delusions of persecution. They are all individuals having difficulty of adaptation, in part due to lack of an adequate endowment or resistance, difficulty of meeting tests which may be as simple as the tubercle bacillus or as complicated as a conventional social code. As the tests of life vary in severity and in complexity so the sensitiveness of individuals varies in many ways. A man may be able to deal adequately with a strenuous assault by outside germs but fail when confronted with a rather simple sexual situation. Another individual may meet in a wholesome and robust way all the simple tests of the physical environment but be socially sensitive, handi-

capped by feelings of inferiority or by a tendency to suspicion.

The general practitioner passes lightly over the personal factors in the case of his patients who have the ordinary bodily ailments; he is rather timid about bringing all his resources to the relief of a psychoneurotic patient; he is perhaps still more hesitant about treating cases of definite mental disorder. This timidity should be based not upon any special feeling of mystery nor upon the idea that these disorders are outside the field of pathological biology. It has justification only insofar as these disorders are specially complex and somewhat more difficult to elucidate in detail than the average run of human ailments. It is well, however, that the practitioner should have a general grasp of the nature of these disorders. For convenience he may group them under 2 main heads. In one group the mental disorder is essentially symptomatic of, or secondary to, well recognized conditions of fairly simple origin. Mental symptoms may be secondary to definite structural alterations of the central nervous system, or to the acute or chronic action of poisons of organismal or other origin. Disorders of mood, delusions, hallucinatory experiences, odd behavior, may represent the early signs of general paralysis, cerebral arteriosclerosis, epidemic encephalitis, brain tumor, pernicious anemia; they may represent the effect of chronic poisoning by lead or alcohol, or they may be the manifestation of an underlying typhoid fever or a focal infection of chronic form. Such cases belong theoretically to internal medicine and neurology, if practically to psychiatry. In other cases the mental disorder is not symptomatic of such an impersonal disorder but is the manifestation of a personality of special sensitiveness, dealing with its own inner conflicts and residuals from past experiences or dealing with some actual life situation the difficulty of which may not be overt and obvious but which may require special scrutiny.

In this latter group of patients the physician must study the clinical picture in the light of the personality of the patient, his past experiences and his present situation. He will ascertain the personality of the patient with the help of the family history and his knowledge of the patient's past life. With regard to the inner conflicts and past experiences which may have left the patient very sensitive to certain topics, he will give the patient an opportunity of talking frankly and discussing them in some detail. As to the actual situation, he will try to evaluate the real values involved in the life situation of the patient and

will help the patient to see the situation as it is, free from all disguise.

A glance at a textbook of psychiatry or at the statistical tables of any mental hospital will show what a large number of the more serious cases of mental disorder are included under the 2 headings of manic-depressive insanity and dementia precox, to use the familiar terms of Kraepelin, or the headings affective psychosis and schizophrenic psychosis, to use more acceptable terms. These very terms cause an uneasy emotion in the breast of the practitioner and may convey very little to him. They do not suggest a dynamic problem which he will be glad to study in detail and modify to the best of his ability.

Although the terms may repel the general practitioner, the patients are human beings in distress who require help. It is to the general practitioner that the patient first turns; it is he who may have to supervise the treatment of the patient during a considerable part if not the whole period of the mental disorder; it is he to whom the patient returns after being treated more or less successfully in a mental hospital. These patients are suffering from conditions which often cause both the patient and the family a great deal of distress. The symptoms are closely related to the fundamental issues of life; they represent human nature at grips with its individual destiny. The patient may, therefore, very well make a special appeal to the physician not only on account of the scientific interest but also on account of the human interest of the problem.

With a sound human and scientific interest in his patient the physician will not confine himself merely to the management of the case, to attention to the physical needs, to comforting reassurance and encouragement, but will also bring the spirit of scientific curiosity to bear upon the mental disorder of his patient. He will try to understand the specific forces at work and the best method of dealing with these forces. He may suspect that the technical jargon of the psychiatrist is more or less irrelevant and that his own lack of familiarity with the niceties of this jargon need not prevent him from being of use to his patient.

A few general remarks may be made with regard to these 2 large groups of patients.

In the first group, the group of the affective disorders, the patient is apt to have a somewhat discolored view of the outside world; he sees it through smoked glasses or with too roseate a hue. His activity is apt to be seriously reduced

or, on the other hand, to be increased and uninhibited.

In the other group of cases, the so-called schizophrenic group, the patient is apt to see the world in a twisted or distorted way. The world in which he lives is very different from that of the normal person. His activity is apt to be erratic and somewhat unintelligible.

In the first group of patients, who are depressed on the one hand or exhilarated on the other, one deals with a condition which more or less runs its own course and which is, to a certain extent, self-limiting. The depressed patient gradually recovers his buoyancy, the exhilaration of the excited patient simmers down and the patient resumes the even tenor of his way.

In the second group the situation is more serious. The distorted outlook is apt to be persistent. The patient tends to become more alienated from his fellows, and there is a great likelihood that the normal interests of human nature cease to play an active part in his life. He may cease to become a productive member of the community and may even be an actively disturbing factor. Very frequently the physician takes a somewhat fatalistic attitude towards the problems of these cases and considers the outcome as already determined by the nature of the disorder: the patient with a self-limiting disorder will recover so long as he is safeguarded from self-injury or other risks and if his physical well-being is attended to; the patient with odd and distorted ideas and behaviour is headed for shipwreck, and merely palliative measures are to be attempted.

This attitude is intelligible, and under the ordinary demands of a busy practice the physician may not be tempted to go further. On the other hand, the acceptance by the practitioner of this attitude may mean that the patient is deprived of medical help which might make the greatest difference in regard to his comfort and his future efficiency.

In the individual case of depression, of tension, of anxiety, and of fear there may appear to be no reason for the change of mood. The physical health may show no noteworthy modification, and there may have been no overt domestic difficulty nor economic or social strain so far as external observation shows. A review of the situation, however, from the viewpoint of the inner life of the patient may present a different picture. After some interviews it may become clear that it has been no easy task for the patient to deal with his instinctive problems, to digest earlier memories, to adapt himself to the domestic situation, to maintain his self-re-

spect, to feel comfort in relation to his broader social relationships. In the review of such cases one seldom comes upon a single outstanding factor, but is apt to come upon the ordinary trials and difficulties to which human nature is exposed.

A profound depression in the face of very ordinary human difficulties indicates an undue sensitiveness or lack of resistance on the part of the patient; the disorder has its roots in the constitution of the individual. The admission of the constitutional factor need not result in a fatalistic attitude on the part of the physician. In most human ailments the constitution of the individual plays its rôle, and in the etiology of any disease we can either emphasize the severity of the demand on the organism or the constitutional incapacity of the individual to meet it. In tuberculosis one may emphasize the presence of the tubercle bacillus or the lack of immunity of the patient. The physician both in his curative and in his preventive activity pays attention to both of these factors. He tries to eliminate or modify the stress on the individual, *e. g.*, to eliminate noxious organisms from the diet and from the atmosphere. On the other hand, he tries to stimulate the natural defenses of the organism so that it may deal with widely disseminated dangers.

In the patient with a depression the condition may be due to a constitutional lack of resistance in virtue of which he has succumbed to tests which his fellows meet successfully, but the physician may well consider what can be done to stimulate or to supplement the resources of the individual as well as what may be done to modify or to eliminate the special environmental difficulties. It is only in the course of intimate personal interviews that the physician will learn from the patient about his inner handicaps and difficulties and about the special strain to which the actual circumstances of life have exposed him. The sickness may then be somewhat more intelligible and the patient may realize that the cloud which so mysteriously had descended upon him is his personal reaction to specific life problems. The mere transformation of this mysterious occurrence into something definite and familiar may be a very great relief to a patient; it may indicate the possibilities of a rather definite reconstructive program. Even the recognition that the illness is of a familiar type experienced by others may be a relief to a patient.

A patient with a well-marked depression was fascinated by A. C. Benson's *Thy Rod and Thy Staff*, in which the author describes his own attack of depression. To the patient it was a

revelation to find that another person had suffered from similar symptoms.

Even where the interviews with the physician do not make the situation altogether clear, the sympathetic coöperation of the physician in studying the patient's problem may give considerable relief to the patient. He does not feel abandoned; he considers that there is a solution in sight; he is encouraged to mobilize his resources and to live up to his capacity even in his somewhat crippled state.

Such interviews may make the difference between a condition of hopelessness leading to suicide and a more or less patient endurance of a self-limiting condition until it passes away. The depression may represent constitutional liability, the nature of which we are at present unable to specify. This liability, however, is one aspect of a temperament which is also liable to derive keen pleasure from life and sometimes even to pass through transitory periods of unusual exhilaration. The depression, therefore, has to be weighed in the balance along with the other factors. A patient may be encouraged to accept more philosophically a transitory reduction in the tempo of life if he realizes that this is one quality of a temperament which gives to him a greater zest in life than is experienced by his more stable and more phlegmatic fellows.

Depression, like megrim headache, subtracts something from the total efficiency of the individual. Its occurrence is rooted in some constitutional sensibility. In some cases it is possible by a painstaking review to find what is the specific factor which elicits the depression in the one case, the megrim headache in the other.

If the occurrence of the individual attack still remains obscure the physician can contribute a good deal towards modifying the distress of the patient and preventing him from throwing down the cards in despair and making his exit.

The management of a case of depression at home under the supervision of the general practitioner is simpler than the management of even a mild excitement in which the constant activity and exuberant enterprises of a patient, with his irritation at being thwarted, make home care a very difficult matter. The physician both in the case of the depression and of the excitement may consider that the risks do not permit him to accept the responsibility of caring for the patient at home, and he may recommend that the patient be treated in a mental hospital. Here it is important that both the patient and the relatives should have an intelligent and wholesome attitude towards the situation. There is still a widespread prejudice throughout the community in

regard to mental hospitals; the legal requirement of commitment weighs unduly upon many people. The facilities available in some states still belong to the medieval period, and patients are still brought into court and tried for insanity or cared for in jails until sheriffs can come to remove them to distant hospitals. The medical profession in such states has a serious responsibility for taking the initiative in a campaign which will put an end to such medieval survivals. Even where excellent facilities are available relatives may hesitate to take advantage of them. Their chief aim may be to conceal the existence of a mental disorder. They may look upon a mental hospital as the last resort. The physician himself may think and talk of it in these terms. He may talk of "confining the patient in an institution." He may recommend admission to the hospital only when he considers that the patient is incurable after a long period of trial at home. He should consider the mental hospital as he considers another hospital, not as a last resort for the most serious cases but as a valuable resort with unusual facilities available at any stage of the patient's illness.

In many cases the mood of the patient is not that of a frozen depression but may be more one of apprehensiveness, anxiety, fear, or vague distress. In these cases there is more evidence that quite definite conflicts and difficulties are at the basis of the disorder. The practitioner may have more hope here that his special therapeutic interviews with the patient will have a demonstrable beneficial influence on the course of the trouble. The tension and fear may be modified in a quite dramatic way when the patient has had the benefit of some frank talks with the physician.

Cases in which the outcome is dubious and in which the patient seems fated to go progressively along the path which takes him away from the highway of human companionship may cause the physician to throw up his hands in despair. The traditional teaching of psychiatry, represented by such a term as dementia precox, would seem to justify this attitude. On the other hand, there has been a quite undue tendency to assume a prophetic attitude towards the individual case in virtue of a certain group of symptoms. Innumerable cases could be collected where a dogmatic diagnosis of ensuing dementia has been made but where the patient has returned to take up a productive social life. The physician should be very strictly on his guard against making such a diagnosis, and he should even be on his guard against accepting too literally this diagnosis even when made by a specialist. It is not easy to say

which patients who present rather ominous symptoms will recover and which will not. It is not easy to say how far the therapeutic efforts of the physician play a rôle in the recovery of certain patients. In view of our limited knowledge of these problems and of the determining factors with regard to recovery the physician may well be content to study directly the facts of the individual patient, to estimate as best he can his assets and liabilities, and to deal in a purposeful way with those factors which are open to management.

In many of these serious cases the patient breaks down in face of such fundamental tests as the management of the sex instinct and the establishment of wholesome bonds between himself and his fellows. It may be the inadequate or atypical endowment which makes it difficult for so many to deal with such problems, but it is by no means certain that with regard to these problems help cannot be given to the patient at certain stages of his career.

Much light has been thrown of recent years upon the significance of the symptoms of mental disorder. Previously considered as meaningless, their significance has become of late somewhat clearer. Apparently trifling and negligible symptoms are found to be the expression of deep rooted tendencies in human nature. The stereotyped movements of an elderly paranoid patient are found to represent the persistence in her life of the profound impression made upon her by an early love affair with an apprentice shoemaker. The somewhat untidy and displeasing appearance of a youth who sits on the ward with a crust in his hand is found to represent his tenacious clinging to bread, the "staff of life," the symbol of food for the soul and of the purification which it needs in view of his early sex habits. Wetting and soiling the bed, which are apt to be looked upon merely as indicating a meaningless loss of control, are found in some cases to indicate the fascination for the individual of the period of infantile dependence on the parent; they may also indicate the persistence of infantile sources of organic satisfaction. The belief of the patient that he is a god or of noble descent or that he is receiving messages of love seems to be intelligible in the light of what we know of human nature, but we find that these same trends may be veiled a little more discreetly. The longing for satisfaction in the love life is expressed by attentions which seem to have a hostile and disagreeable character: lights are thrown in at the windows, the food is tampered with, electricity and occult influences are at work, thoughts are influenced, the habitation is

a place of ill-fame, external influences are forcing the patient into evil paths, into the white slave traffic, or into an abandoned life. The disguises which these forces can take are infinitely varied owing to the symbolizing activity of human nature. The task of the interpretation of the various symptoms of mental disorder, in so far as they are not of organic or toxic origin, is no easy one and the general practitioner may not be very familiar with this type of material. It is important, however, for him to realize that the symptoms are to be looked upon as symbols, that they are the symbols of important driving forces in human nature, that the main forces of human nature are familiar, and that it will help him to understand and treat the disease if he penetrates beneath the symptoms and the symbols to the real life problem of the patient.

These remarks apply to those more standard cases in which the clinical picture is well marked and the classification of the case is simple. However, in a great many patients the clinical picture does not correspond to the classical pictures of the textbooks. The important problem in regard to all these cases is not that of identifying them with textbook types but rather of treating them as individuals. The physician should study the clinical picture as one phase of the life of a human being; he should study the needs and the resources of the patient, the actual problems of his life; and he should offer what help he finds available.

There are many individuals limping along hampered by abnormal attitudes and moods, by feelings of inferiority and of jealousy, by a latent feeling of guilt or uncleanness, by the temptation to daydream and to indulge in the seductions of phantasy. Some of these persons never develop a cleancut mental disorder. They may rarely come to the physician for these specific symptoms. The physician may only indirectly become aware of them if the patient comes on account of vague physical ailments or a general feeling of dissatisfaction with life. To such patients the physician, interested in human nature, appreciative of the underlying conflicts of human nature, may offer invaluable help. The physician may be consulted in regard to the nervous symptoms of childhood, to the relations between parents and children, to problems of marriage and of divorce, and to the occupational problems of industry and commerce. The same attitude which will enable him to care for efficiently the problems of the psychoneuroses and the psychoses will serve him in these other problems. He may even consider the alcoholic patient as a problem in human behavior and human destiny, and not be content

with helping him to sober up or to recover from gastritis or neuritis. He should try to get at the root of this abnormal mental behavior.

A patient was considered to be a recurrent alcoholic. His spree were of extreme nature. His brother, a distinguished physician, saw nothing but a dishonorable termination to the patient's career. The patient himself felt profoundly ashamed of these episodes. The frank review of the whole situation revealed that the alcoholic episodes were merely the reaction to recurrent attacks of profound depression. The recognition of the situation helped to restore to the patient his self-respect and enabled the whole situation to be dealt with so that the alcoholism became a thing of the past.

In order to understand the simpler bodily functions the medical student is shown certain experiments. Animals are chosen because the experimental conditions are rather drastic. In regard to the more complex functions, the mental functions, the emotional and personal reactions of the individual, an experimental demonstration cannot be given to the student, for animal behavior is too remote from the life of human adjustment and the issues involved are too important for one to use human material. In mental disorders, however, nature supplies the missing material, and from these experiments, ruthlessly carried out by nature, the physician may get profound insight into human nature. Thus the physician gets valuable insight not only into the individual problems of his patient but also into the organization of human nature, and

he sees how the human mind works. He learns something of the existence of a complicated subconscious realm of forces, of which the consciousness has little inkling. He realizes that, beneath the conventional personal life, crude instinctive forces with so-called perverse components are leading a subterranean existence. He sees that, beneath the personality of the educated adult, childhood desires and personal attachments persist. Beneath the rational structure of his patient's thought, superstitious and magical beliefs maintain their existence. Side by side with the individual's objective grasp of the situation go phantasies and daydreams and subjective creations which may absorb much of the energy of the individual.

A reasonable degree of interest in the problems of his mental patients will not only enable the physician to be of great help to them; it will give him a very useful insight into human nature, and that same insight will enable him to deal with the general run of his medical and surgical cases, to avoid many errors of diagnosis, to understand many otherwise baffling phenomena, to do his work much more efficiently because he is treating in an intelligent way a sick person and not merely an impersonal disease. Incidentally, the insight derived from his study of mental patients may be of especial value to the physician himself. After laboring over the problems of a mental patient a physician said, "I don't know whether this does the patient any good, but I am sure it does the physician a lot of good."

74 Fenwood Road.

THERAPY IN PNEUMOCOCCUS PNEUMONIA*

A Critical Review

JOHN M. JOHNSTON, M.D., PITTSBURGH

Any discussion of the treatment of disease may be uncritical praise of some favorite procedure or critical analysis of the known therapeutic agents. The former is not only unscientific but eventually unfruitful. The latter is usually discouraging and often actually destructive but it has the permanent value of clearing the ground for the growth of sound treatment.

Pneumonia remains the commonest cause of death among people in the productive decades of life. There is no single field of therapy, in our climate at least, so important, so full of empiric fallacies, or so rich in possibilities of

progress. Many of you no doubt believe that numerous deaths from pneumonia are inevitable. Not long ago the same attitude was held universally toward diabetic acidosis and pernicious anemia. Also it is a well recognized fact that in certain communities, particularly rural ones, pneumonia has such a low incidence that many physicians never become aware of the seriousness of the problem and have no idea of the prevalence or high mortality of the disease. Suffice it to say that in the city of Pittsburgh there are more deaths from this disease than from any other except cardiovascular conditions, which it equals. The mortality in urban communities often exceeds 45 per cent.

* Read before the General Section of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 3, 1934.

There is no intention of dealing with all the proposed remedies but merely to discuss some of the procedures which have been called to our attention within recent years. In general, treatment is either symptomatic, physiologic, or specific. Of symptomatic treatment little will be said for, although it is essential to carry out all measures for the comfort of the patient, such treatment in a disease as brief as pneumonia unfortunately is not of life-saving importance. Physiologic methods will be discussed although as yet no such form of treatment has been proven to have a significant effect upon the death rate. The practices of bed rest and fluid administration are perhaps exceptions to this but their usefulness is obvious. Until an agent is found which is capable of destroying the pneumococcus without serious injury to the host the problem of pneumonia will remain essentially unchanged. This means the development of a specific remedy simple of administration and safe enough to be in the hands of every practicing physician.

Of physiologic methods, intravenous glucose is one of a few which has been investigated under proper control. The final report of MacLachlan, Kastlin, and Lynch, presenting data upon a good series of "positive blood culture" cases, has advised us that glucose is not a life-saving measure. True, it seemed often to lessen delirium but the mortality rate over a period of years sufficient to cover natural variations remained the same with or without glucose.

It might be well here to state the criteria of proof for the value of any form of treatment for pneumonia. Dramatic single experiences have no place. One must show a significant decrease of general mortality either (1) in a series of patients over a period of years and large enough to enter the range of statistical accuracy, *i. e.*, hundreds or even thousands; or (2) in a smaller series of patients who have pneumococci in the blood stream since under the latter condition the mortality remains constantly between 65 and 75 per cent regardless of year, season, or locality.

Digitalis as a means of circulatory support has been shown to be valueless in pneumonia if not actually harmful. Niles and Wyckoff, and Wyckoff, DuBois and Woodruff, in a well controlled series of several hundred patients, found a higher death rate in patients given digitalis in ordinary dosage than in those receiving none. Indeed, though in this case the numbers are too small to be dependable, their experience with pneumonia complicated by auricular fibrillation was that more survived without digitalization than with it. These significant observations fit

well with the conviction that, in pneumonia, patients do not die of myocardial failure.

The use of oxygen has received considerable attention not to say notoriety. Its popular appeal to both laity and profession has led to its widespread use, so that today there is scarcely a hospital or community not equipped to administer this costly and as yet unproven agent. The very rationality of its use as pointed out by McCurdy before this Society two years ago and the constant symptomatic improvement which results, make it necessary to consider its administration seriously. It seems certain in some diffuse bronchopneumonias with much pulmonary edema and a negative blood culture that oxygen has proved life saving. Only a carefully controlled statistical study can establish the true value of oxygen. This should be done since a negative result would be as important to our knowledge as a positive one.

The same might be said of bronchoscopic aspiration. The investigations of Coryllos and Birnbaum have thrown considerable light on the possible origin of lobar consolidation and definitely raise the question of the value of mechanically clearing out the bronchial passages. An estimate of the life-saving properties of this procedure await the proof of adequate study. Moreover, the technical skill and apparatus required definitely limit its applicability.

Since we now know that pneumonia produces no acidosis the use of alkali is no longer indicated. Indeed, the danger of producing an alkalosis seems a definite contraindication to its use. Significant loss of chlorides has, however, been shown by Haden and others, so that the administration of rather large doses of sodium chloride seems a rational physiologic procedure. Its value in lowering mortality has not been established.

Artificial pneumothorax for pneumonia has been widely discussed during the past year. Although used on the continent since 1921 the original reports in English came from Taylor in 1931 and Coghlan in 1932. The experimental results of Lieberman and Leopold, and the clinical reports of Stengel and of Blake during the present year constitute the chief sources of information concerning its value. Of all physiologic methods this bids fair to be the most effective. It is open to the same technical objections as is bronchoscopy as well as being a procedure not without risk in itself. In view of the encouraging preliminary results, however, investigation should be continued to the point of controlled numerical proof.

There is no question today of the absolute value of serum in Type I pneumococcus pneu-

monia. It meets all the requirements of proof. Potent serum is now available in form concentrated to convenient bulk and in price within the reach of most pocketbooks. Sputum typing of reasonable accuracy can be obtained by physicians almost everywhere. Serum gives us specific treatment for about 33 out of every 100 cases. Of these 33 about 20 will recover spontaneously, leaving 13 fatal Type I cases. Under ideal conditions serum should save about 9 of these although the remaining 4 will die. If then the number of deaths in the 100 cases of pneumonia be conservatively set at 40, serum will subtract 9 of these, leaving us still with 31 deaths. It is obvious that this is no solution to the pneumonia problem unless effective serum becomes readily available for each of the many types of pneumococci.

Convalescent serum has had its advocates. It is of unknown antibody titer and the desired type is seldom available even in the wards of a large hospital.

From time to time the use of vaccines has been proposed. Theoretically the procedure is unsound both because of the high specificity of each type of pneumococcus and because of the time required for the development of an active immunity. An agent to be of use in pneumonia must be effective within a few days, not to say a few hours. The burden of proof still rests with the advocates of vaccine treatment.

Artificial hyperpyrexia, either general or local, has been recently investigated as an agent for the destruction of pneumococci within the body. Work has been reported by Stewart and by Price. The former claims, in a series of almost 1000 cases, a reduction of mortality from 20 per cent to 12 per cent. Whether this is confirmed or not the limitations of the method, because of hospitalization, apparatus, *etc.*, detract from its possible application and general usefulness.

Chemotherapy is the dream of the therapist. Success in the bacterial infections so far has not been attained although it is significant that a blood stream concentration of certain drugs sufficient to kill any type of pneumococcus in the blood can be readily and safely reached. Two things interfere with successful chemotherapy: first, drug idiosyncrasy in a fair percentage of the population; and second, failure of penetration of drug to the active focus because of the nature of pulmonary consolidation.

Of chemical substances used in the treatment of pneumonia I mention only two, potassium permanganate and the derivatives of quinine. A good deal has been written and spoken about the first of these. Its use was described by Chester in 1929 and it has been given in a more or less

haphazard manner since that time. The drug lacks both the support of reason and also to my knowledge at least of controlled use. The quinines on the other hand are well known to have a highly selective and destructive action on the pneumococcus. Many of these drugs, too, are well tolerated by the human body in relatively large doses. S. Solis-Cohen was convinced many years ago of the value of quinine although it falls short of being a real specific. Ethyl hydrocuprein was investigated with encouraging results by Morgenroth, Moore and Chesney, and others, but the toxicity of this compound to many individuals makes its use in adequate doses too dangerous. The same may be said for optochin base, a closely related chemical. Miura and Okamoto, in Japan, and Gundel and Seitz, in Germany, have recently shown that ethyl apoquinine is less toxic and equally effective. MacLachlan and his associates in coöperation with the Department of Research in Pure Chemistry of the Mellon Institute (direction of L. H. Cretcher) have this year confirmed these results and described a new compound, hydroxyethyl apoquinine, of equal or superior potency and of still less poisonous character. The latter study is still in the stage of test tube and animal experiment. Only long and carefully controlled experimental and clinical use of this or other chemicals will prove or disprove their value.

In summary let me reiterate that the effectiveness of any method of treatment in pneumonia must be judged by adequate scientific standards such as have been outlined. Sporadic and dramatic occurrences may be "leads" for investigation, but unless followed by controlled observation they are of no value to the practicing physician. In this disease we must have knowledge not only of what we can do for the patient but also what to avoid as useless, annoying, and expensive to him. Already the use of serum in Type I pneumonia has given us a tremendous positive advantage. The measure of hope is for an agent which every physician can use easily and early in the disease. Otherwise it seems unlikely that we can look forward to any significant lowering of the death rate. Chemotherapy offers at least an experimental approach. Certainly it is worthy of re-investigation.

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ABSTRACT OF DISCUSSION

HAROLD W. JONES, Philadelphia: The emphasis that Dr. Johnston has placed upon the necessity of having experience with a large group of well controlled cases before concluding that a form of therapy is of distinct value is most important, and is applicable not only to pneumonia but to the treatment of all diseases.

Doubtless there are many in this room who would be willing to go on record that they know a large number of pneumonia patients who were benefited by the use of digitalis, and there probably would be a great deal of truth in their statements. The routine use of digitalis from the beginning of a course of pneumonia to its conclusion, in the light of Wycoff's observations and in my own experience, is unjustifiable. I have often wondered whether I would have asked for digitalis if I had been unfortunate enough to develop this disease. I do know, that I should like to be placed in an oxygen tent, for I have seen such marked symptomatic improvement occur. Ease in breathing, disappearance of cyanosis, and marked reduction in circulatory rate are constantly observed.

In the years in which Solomon Solis-Cohen was active it was my privilege to work with him in treating many patients for pneumonia. He was a strong advocate of the use of quinine in large doses by mouth and intravenously, but in spite of this therapy the mortality rate varied but little from that of Hobart A. Hare who never used quinine. Joseph Sailer, in a well-controlled group of cases, used diathermy in pneumonia all one winter, and he concluded that the results were

not of sufficient value to warrant its use as a routine.

The New York observers have had good results with the use of specific serum therapy, and we can accept this because their conclusions are based upon the study of a large number of well-controlled cases. Others have reported distinct benefit from the use of antibody solution. I am not as enthusiastic about its value from what little experience I have had.

The ideal therapeutic agent will be some chemical that can be injected intravenously without danger, and which will bring about resolution and a cure in the great majority of patients. Such a substance is not yet available, but we have in artificial pneumothorax a measure which offers the best hope of cure in the greatest number of cases. If the case is a suitable one, that is, one-sided, no adhesions, no advanced pulmonary disease of the other side, and if adequate treatment is given within 72 hours after the onset, the mortality in this disease will be greatly lowered. This treatment, however, can not be carried out in a haphazard manner by anybody in every patient who has pneumonia. This form of treatment is the greatest single advance that has been made in the therapy of pneumonia in our lifetime.

ADOLESCENCE FROM A PEDIATRIC POINT OF VIEW*

THEODORE O. ELTERICH, M.D., PITTSBURGH

It has been the custom of the pediatrician to divide the span of childhood arbitrarily into certain periods or epochs; that is, the newborn or neonatal, the preschool, the school child, puberty, and adolescence periods. A few years ago writers called attention to the lack of interest in and the inadequate medical supervision of the preschool child. They ingenuously epigramized this epoch as "the forgotten or the neglected age." This was a valuable observation, for in the succeeding years the preschool child came into his own, and now a most voluminous literature has developed depicting every phase of the life of a tot of this age. Now, however, we would designate puberty and adolescence as "a medical no man's land." It is true that the psychologist, the psychiatrist, the sociologist, the educational and vocational adviser all have written a great deal about this stormy period. The gynecologist and the endocrinologist have taken a slight interest, but for the most part medical literature, too prolific on most topics, is strangely barren on this subject. The general practitioner, the internist, and the pediatrician who have in their charge the vast majority of adolescents have given scant attention to this extraordinarily important epoch. To what specialty of medicine does the field of puberty and adolescence belong? Of course it belongs to the general practitioner; but, if a spe-

cialist is required, is it the province of the pediatrician or the internist?

T. Wingate Todd, an anatomist and therefore a neutral opinion, makes this statement: "Since adolescence is but a phase of childhood on the threshold of maturity, it falls into the purview of the pediatrician rather than of the internist." Incidentally Todd has done distinguished research in this field. At the first session of the American Academy of Pediatrics, Borden S. Veeder summarized the attitude of many child specialists on the matter of medical care during adolescence as follows: "Dr. G. falls into the common error of thinking of pediatrics and the medical service of children in terms of an institution. I think that we would make a great mistake, for instance, to take a children's hospital and to operate it above ages when, for practical reasons, we can mix boys and girls together. As a matter of fact, except for surgical conditions there is little hospitalization of children of the adolescent age." Parenthetically the essayist would suggest the advisability of creating 2 small wards, one for male and one for female adolescents. Dr. Veeder continued: "However, in the general practice of pediatrics, the problems of children of adolescent age.....are increasing tremendously. What happens during adolescence is dependent on what takes place before adolescence, and to build up to that period it is almost essential for the pediatrician to carry the child

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through this period if the child is to have satisfactory handling. Internists are not interested in the things the pediatricians are interested in, the growing, developing organism. They usually study an organism that is fixed." It would seem reasonable that pediatricians should take increasing interest in the known facts and standards of normal growth and that the individual should be considered a child until he has reached maturity.

It is quite a simple matter to define puberty. It is the period attained when an individual achieves the capacity to reproduce his kind. The commencement of menstruation and nocturnal seminal emissions are usually considered the line of demarcation. Adolescence, on the other hand, is a vaguer term and might not be defined the same by different writers on the subject. To the essayist it means the transition period between puberty and the attainment of complete maturity. It has been designated as that difficult period when the individual is not a child, nor yet an adult. This epoch approximately covers the teen years. It is interesting to note that this prolonged adolescent span is peculiarly a characteristic of human beings, especially of civilized beings, and has been spoken of as the adolescent lag. The onset of puberty is a variable, being influenced by such factors as climate, race, social status, occupation, and constitution. Neurath states that the average onset of menstruation in families of central Europeans is between 13 and 15 years, the average onset of puberty in boys is between 14 and 16 years; although in girls the onset in menstruation may not appear until the age of 17 without being interpreted as being pathological. It is interesting to mention a remark of Todd here: "Comparison with the records of the first menstruation date shows that by far the great majority of girls begin to menstruate when the roentgenographic record of their skeletal development registers an age of 13½ to 14 years. Not the chronological but the developmental age is significant in relation to menstruation. It is interesting to note that children of good homes and parentage, having had good health and intelligent hygiene, mature, on an average, at least 9 months earlier.

"Obviously then," Todd continues, "some increased activity of the sex hormones occurs suddenly at about 13 skeletal years and produces the phenomena of adolescence." As physicians we should be well informed on what is known about normal growth. Todd summarized the differences in the growth of boys and girls: "At birth both sexes exhibit strictly similar stages of development. They progress parallel for some months but towards the end of the first year there is a lagging on the part of the boys which

becomes intensified during the following years of early childhood. At about age 5 the stages are again approximately equalized. At about the sixth birthday many but not all girls again progress more rapidly than the boys who, however, tend to catch up by the ninth birthday. During the ages 10 to 12 there is a preadolescent slump in the developmental progress in boys, scarcely participated in by the girls who at age 12 are, many of them, quite 2 years in advance of the boys. By the seventeenth birthday there is very little difference between the sexes and towards the end of the second decade all distinction is wiped out." Todd, however, emphasizes: "that the average curves of development do not, in any way, represent the phenomena as they appear in individual children. Development, like growth, takes place in spurts of relatively great velocity, preceded and followed by periods of much slower progress. It is no uncommon thing, for example, for a girl, when she begins to menstruate, to complete the equivalent of 3 years of skeletal development in a brief period of 6 to 9 months."

There is not only this irregularity in the speed with which a child grows taller, but, as Richard A. Bolt summarizes it, different parts of the body grow in unequal ratios and attain their maturity at different chronological ages. Few, if any, parts of the body grow at a steady rate. This disproportion in the rate of growth is most marked during adolescence. This variation in quantitative and qualitative growth is most important to us as physicians. For example, a boy grows 6 inches in a very brief period. Overnight he is looked upon as a big, husky chap. Has his heart kept pace with his obvious outer development? Is his fatigue due to mere laziness? Is he truly ready to take his place in arduous sports such as football? These are pertinent questions and it is the duty of the physician to answer them and to educate the unsuspecting parent and the overly enthusiastic athletic instructor that although exercise and discipline in school sports are valuable in the development of the physical body, the character, and the personality, it must be done with discretion and under the guidance of intelligent medical supervision. A regular periodic health examination of the adolescent is advisable.

Although the period of adolescence in man carries with it a comparatively low mortality rate, some of the ills which terminate lethally a few years later undoubtedly have their incipency at this or an earlier period. To put the matter concretely, between the ages of 10 and 14 there were 17,000 and 16,000 deaths, respectively, during 1931 and 1932 in the registration

states of our country. For the succeeding 5 years, 15 to 19, the death rate was 29,000 and 26,000 respectively; whereas from ages 20 to 24 the figures were 39,000 and 35,000 deaths respectively. To illustrate with a specific disease, about 1500 lose their lives annually from tuberculosis between the ages of 10 and 14; 5000, between the ages of 15 and 19; and 9000, between the ages of 20 and 24. These figures suggest one very important thing, the responsibility of the pediatrician to diagnose tuberculosis early. What is true of tuberculosis applies also to other conditions, such as rheumatic heart disease.

Pathological conditions, peculiar to puberty and adolescence, are quite numerous. Many of them are caused by a faulty functioning of the glands of internal secretion. As a result such endocrine problems as precocious and delayed maturation, thyroid disease, and diabetes develop. More subtly we have an endocrine reason for much of the work of the gynecologist and the psychiatrist during this epoch. In recent years the hormones of the gonads, suprarenals, and the pituitary in their relation to adolescence have been given much attention.

Abnormal cardiovascular behavior, orthostatic albuminuria, nonfamilial hemolytic icterus, chlorosis, otosclerosis, and acne are other diseased conditions associated with these teen years. The rising morbidity of tuberculosis, especially in adolescent girls, has already been mentioned. The diminution in amount of adenoid tissue is a favorable characteristic. Gastro-intestinal pathology is rare. Sponginess of the gums, loosening of the teeth, and periostitis are temporary dental problems, vanishing with the establishment of the menses. The eyes of the adolescent need watching, especially if he has a constitutional condition such as tuberculosis or syphilis. The most prevalent diseases of the nervous system during the teen years are those in which there is an hereditary, a familial, or an endocrine factor.

The mental characteristics of puberty are enumerated by Buehler as stubbornness, intractability, periods of moodiness, irresponsibility, involuntary fits of crying or laughing, brief periods of pugnaciousness alternating with repentance, braggadocio, groundless hate, needless secretiveness, petty dishonesty, insubordination, reclusiveness. These characteristics are, as a rule, temporary and are the outer expression of the internal revolution taking place because of the momentous physical changes and the entrance into the physical economy of the revamped hormones of the ductless glands. However, if these minor variations in personality persist, then

the prognosis for a healthy mental adulthood becomes gloomy. Sometimes the unrest of this critical period, especially if the individual is in a poorly regulated environment, becomes the driving force to cause wanderlust, vagabondage, school delinquency, running away from home, sexual delinquency, and even criminal propensities.

The hygiene and management of an adolescent is most important. It involves, besides the study of the child himself, the education of the parent. Oscar B. Markey slyly puts it: "Parents and parent substitutes need to be helped to grow up themselves so that they may look on adolescents like grownups, not like adolescents jealous of their power."

The adolescent needs physical and mental care, intelligently and sympathetically administered. Adolescence means awakening ambition. His desire to succeed must be judiciously controlled before excessive effort incurs physical and mental fatigue. Modern life has put a prodigious strain on the teen years. Education is varied and time-consuming. Outside interests are many, glittering and alluring. An analysis of many adolescents' schedules reveals every moment taken. He needs one hour outdoor exercise and 9 hours sleep. He needs a little time to himself to develop his own hobbies. However he should be encouraged to assume responsibility. The extraordinary acceleration in growth makes it obvious that the diet must be quantitatively and qualitatively adequate. In boys the total calories required daily may be as high as 4,000, whereas in girls it sometimes reaches well over 3,000. E. V. McCollum emphasizes: "The period of adolescence, because of its rapidly developing sexual structure and function, is particularly susceptible to damage of permanent character by vitamin A deficiency." A diet deficient in the antineuritic vitamin B affects primarily the health of the nervous tissues. A deficiency of vitamin E causes sterility. McCollum further cautions that Americans subsist too often upon a diet having an acid ash and that our consumption of sugar is excessive. He speculates that an inadequate diet causing an endocrine deficiency at such a crucial period might do injury for life. The consumption of an adequate breakfast is especially to be recommended.

Intelligent instruction in sex hygiene and adequate explanation of certain physiological processes appearing during this epoch are very important.

In the mental management of the adolescent Leta Stetter Hollingworth mentions 4 aims: the psychological weaning from the family, successful heterogeneous sexual adjustment, vocational

and economic security, a personal philosophy of life which represents his own religion. To this Markey adds: "Environmental influences help these innate urges much more by guiding and

welcoming and tend to hinder them by directing and pressing."

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ACUTE APPENDICITIS*

With Report of 2700 Cases

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In recent years the stimulus to write on the subject of acute appendicitis has been the reported increasing mortality. Although statistics are usually inaccurate and often misleading they do show definite trends.

Government records show that in 1900 the death rate from appendicitis was 9.7 per 100,000 population. The rate increased almost year by year until 1928, at which time the rate was 15.3 per 100,000 population. Since 1928 there has been some decrease, the rate being 14.2 in 1932. These figures do not represent results of treatment. Variation in the occurrence of the disease or in its severity would influence these figures.

TABLE I.

<i>Year</i>	<i>Mortality rate per 100,000 population</i>
1900	9.7
1910	11.4
1920	13.4
1925	15.2
1930	15.2
1932	14.2

The only true index of our successes or failures is the result obtained in given numbers of cases treated. There are all too few painstaking reports of large series of cases. We should learn most from our own failures. A systematic examination of records usually shows disappointing results.

This communication is based on 2700 cases of acute appendicitis treated by the surgical staff of the Mercy Hospital, Pittsburgh, and verified by the laboratory report if there was any doubt about the gross findings. All cases reported by the laboratory as subacute were excluded. This eliminated a large number of cases which were thought by the surgeon to be acute appendicitis. The work was done by 12 surgeons, which makes it impossible to define the exact procedure in all

cases. No attempt was made to determine the results of the individual surgeon nor to determine variations in management or technic.

The mortality was 4.81 per cent with great yearly variation, showing 3.5 per cent in 1933.

TABLE II.

<i>Morbidity in Acute Appendicitis by Age Groups</i>	<i>Per cent of total cases</i>
<i>Age in years</i>	
Under 10	5.81
10-20	34.88
20-30	30.52
30-40	15.33
40-50	7.77
50-60	2.9
60-70	1.59
70-80	.33

Of the 2700 cases 157 occurred in the first decade, 942 in the second, 824 in the third, 414 in the fourth, 210 in the fifth, 79 in the sixth, 43 in the seventh, and 9 in the eighth decade. More than 65 per cent occurred between the ages of 10 and 30.

TABLE III.

<i>Mortality Rate in Acute Appendicitis by Age Groups</i>	<i>Mortality per cent</i>
<i>Age in years</i>	
Under 10	9.5
Above 60	18.8

The greatest mortality occurred in the extremes of life, there being a death rate of 9.5 per cent in patients under 10 years of age, and a rate of 18.8 per cent in patients more than 60 years of age. These figures agree with general opinion.

TABLE IV.

<i>Mortality Rate in Acute Appendicitis by Sex</i>	<i>Per cent of fatal cases</i>	<i>Mortality per cent</i>
<i>Sex</i>		
Male	60.04	5.78
Female	36.96	3.09

There were 1729 male patients with a mortality of 5.78 per cent as compared with 971 female patients with a death rate of 3.09 per cent.

The following figures are not based on the 2700 cases, the individual records being incom-

* Read before the Section on Surgery of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 3, 1934.

plete in some details, but are based on a subtotal of that number.

TABLE V.

<i>Mortality Rate in Acute Appendicitis—Delay Cases</i>	<i>Mortality per cent</i>
Treatment in first attack	1.3
Operation within 24 hours	.7
Operation within 48 hours	3.91

The percentage of cases coming for treatment in the first attack was 19.8. We were surprised to know that the mortality in this group was only 1.3 per cent, which would seem to indicate that there was more safety in an original attack than in a subsequent one. There is undoubted inaccuracy here due to the fact that the patient cannot always give an accurate statement as to whether there have been previous attacks. The average delay in this group was only slightly less than for the entire series. Adhesions following an attack not infrequently cause angulation and obstruction, which may explain the rapid course of a subsequent attack.

Of much greater importance than the above is the length of time lost between the first symptom and the initiation of treatment. It is stated by Prof. C. Grey Turner that classification should be made by the pathology rather than by the time that elapses, which is scientifically correct. However, in this disease there is close relationship between advancing pathology and loss of time.

TABLE VI.

<i>Duration of Illness of Fatal Cases</i>	<i>Per cent of total deaths</i>
<i>Duration of illness</i>	
Less than 48 hours	31.2
More than 60 hours	56.6

The death rate in patients operated upon in the first 24 hours was .7 of 1 per cent. Of the fatal cases 31.2 per cent had been ill less than 48 hours and 56.6 had been ill more than 60 hours. In all the fatal cases there was an average delay of 4.03 days whereas the delay for the whole series was 2.51 days and for the nonfatal cases 2.43 days.

It is impossible to express adequately the importance of early diagnosis and early treatment. This being our chief hope of success, what are the causes of delay? We believe they can be placed in 3 classes: First, delay due to failure to call a physician; second, delay due to confusing symptoms and signs; and third, delay due to failure to advise prompt operation when no contraindication exists.

Failure to call a physician usually occurs because the patient or the parents do not realize the danger; therefore, the public must be in-

formed of this danger. To protect themselves, persons must know the early symptoms and signs of the disease. All classes of society must be reached, as has been done in Philadelphia, by an organized campaign of education, the results of which have been reported by John O. Bowers.

The public should understand the fact that there is no treatment for early acute appendicitis except operation. Our figures prove that there has been no more delay in securing treatment during the financial depression than prior to it.

The second cause of delay is important because complications often occur before a diagnosis can be made. In this class proper experience of the physician and surgeon usually results in a diagnosis of a surgical lesion being made and an exploratory operation being done promptly. A lesser amount of experience leads to a failure to weigh the evidence properly. Fear of doing an unnecessary operation and of consequent criticism delays treatment until fatal complications occur.

Patients presenting symptoms and signs of acute abdominal disease should be in a hospital where all the help possible may be obtained. Temperature records made once or twice a day are often useless or actually misleading. Frequently repeated leukocyte counts are an aid. These patients' symptoms and signs may change very quickly. They should be examined at short intervals by some one familiar with such cases. A patient who presents the most bizarre picture at 10:00 p. m. may show symptoms and signs of acute appendicitis by 2:00 a. m. While the surgeon sleeps there may develop complications which are beyond his skill by 9:00 a. m.

The third cause of delay, that is, failure to advise surgical treatment when indicated, is laid at the door of the medical profession. Too often early diagnosis does not lead to early operation. They should be almost synonymous. Although no physician would defend conservative treatment in the early stage of this disease there are those who actually advise the so-called "waiting" treatment, hoping the symptoms will subside. In addition to the danger involved in such an attack, if the patient recovers he is less alarmed by a subsequent attack and may not even summon medical aid until complications occur. By the advice of physicians many patients are led to believe an attack may be averted by use of an ice cap. "I had an attack last year and my doctor 'froze' it out, but this one was not relieved by the ice," is a common extract from the patient's description.

A study was made of the initial pain in this series. Forty-one and three-fifths per cent of

these patients described a primary central or general pain. Twenty-nine and one-third per cent of them described primary epigastric pain and 21.8 per cent complained of a primary pain in the region of McBurney's point. The pain localized in the region of the appendix in a few hours in nearly all cases. Rarely the early pains did not localize so promptly. When the position of the appendix was abnormal, it was often so indicated by the latter pain.

Wilkie of Edinburgh has emphasized for more than 20 years the importance of recognizing 2 types of acute appendicitis, the obstructive and the inflammatory. The former he believes to be much more dangerous. He believes these types can be differentiated and apparently relies much on the character of the pain in making the differentiation. Acute colicky pains associated with vomiting, normal temperature, and normal pulse in the first 6 to 12 hours are, in his opinion, diagnostic of obstructive appendicitis. We agree as to the danger of the obstructive type, but any attempt to differentiate dangerous cases from supposedly comparatively safe cases would be tragic.

TABLE VII.

<i>Mortality Rate in Appendicitis—Purgation</i>	
	<i>Mortality per cent</i>
Entire series	4.83
Purged cases	6.4

When purgatives had been taken there was a mortality of 6.4 per cent. We had expected a higher mortality in these cases, but there are several factors which may account for this. Early purgation is probably less dangerous than later when the appendix is more seriously damaged. Purgatives are often vomited. When operation is done soon after purgation there may be little bad effect. However, we believe this is a dangerous and unsurgical form of treatment.

Vomiting occurred as an early symptom in 70.6 per cent of this series. The majority of the remainder described nausea. This symptom helps to exclude other lesions such as acute pelvic inflammation and kidney colic.

Of the 130 deaths in this series 78.5 per cent were directly or indirectly due to peritonitis; namely, peritonitis alone or with abscess, remote infection or abscess, pyelophlebitis, septicemia, or intestinal obstruction due to adhesions. In 6.9 per cent of such lesions there was associated such lesions as pneumonia and cardiac failure.

TABLE VIII.

<i>Causes of Death in Acute Appendicitis</i>	
<i>Causes of death</i>	<i>Per cent of total cases</i>
Local—abdominal	78.5
Other causes—pulmonary, etc	21.5

The remaining 21.5 per cent of the fatal cases would have survived the abdominal disease but died of pneumonia (13), pulmonary embolus (7), atelectasis, uremia, tetanus, alcoholism, status lymphaticus, etc. These latter represent a mortality to be found in any large series of acute surgical cases and do not concern us especially in this communication. They are, however, more or less inevitable and when honestly considered enter into a definite mortality of any acute surgical disease.

But what of the 102 patients who lost their lives from a group of lesions all having a definite relation to an acutely diseased appendix as a primary cause? They are distinctly our failures. They represent preventable deaths in most instances, whether due to delayed diagnosis, faulty management, or improper surgical treatment.

In general this series was treated by immediate operation. Twelve patients died who were considered unfit for an operative procedure, death being due to peritonitis and necropsy proving the diagnosis. If only cloudy fluid with lymph deposit was present no drainage was used. All cases showing abscess were drained, the appendix being removed when accessible. The cases which had drainage only were excluded from the series if recovery followed, but were included in the mortality if death occurred. Forty and eighteen-one hundredths per cent of the entire series had drainage of the abdominal cavity. Of all the patients who died from the immediate effects of appendicitis 94.32 per cent had drainage. Very acute inflammation or gangrene confined to the appendix was often considered indication for drainage of the abdominal wall. We believe one burden of convalescence in these septic cases can be made lighter by very free drainage.

Those cases which show signs of complication without definite localizing signs are the subject of controversy. In general, cases with retracted abdomens were considered proper for immediate operation.

If there existed signs of peritonitis with distention, vomiting, absence of peristalsis, and rapid pulse, conservative treatment was observed. Distention in the absence of vomiting and rapid pulse was not considered a definite contraindication to operation by the majority of the operators who did this work. In other words, the Ochsner treatment was employed by us less frequently than by some others who have reported series of cases.

The chief object of this paper is to excite discussion concerning the best method of treating cases of acute appendicitis with peritonitis. We have made no effort to defend the method

here used or to show a low mortality. The analysis enabled us to evaluate the results of this method of treatment.

CONCLUSIONS

1. Although there are apparently more deaths from acute appendicitis than there were 30 years ago, reports of large series of cases in large centers of population do not show a higher mortality.

2. A study should be made of the death rate in small hospitals.

3. Education of the public is showing results and is to be commended.

4. Early diagnosis with prompt operation is still of the greatest importance.

5. Proper management of complicated cases will reduce mortality, but it requires skill, which can be acquired only by proper training and experience.

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ABSTRACT OF DISCUSSION

ELDRIDGE L. ELIASON, Philadelphia: Dr. Donaldson has emphasized the real factors concerned in the present day mortality, which is generally considered unreasonably high, government records indicating a rise from 9.7 per 100,000 in 1900 to 14.2 in 1932. But, as he states, these records are really not a fair estimate as they are not actual, and for this reason: In 1900 appendicitis was a young disease, having been recognized as an entity only since 1886. Many cases died and probably were reported as diseases other than appendicitis; namely, typhoid, peritonitis, ileus, retroperitoneal abscess, septicemia, septic pneumonia, *etc.* Latterly, as the disease and its complications are being recognized, such are reported as being secondary conditions and the death is charged primarily to appendicitis. I refer to such complications as pyelephlebitis, hepatic abscess, subdiaphragmatic abscess, septic pneumonia or empyema, and ileus. It can easily be seen what a difference the subtraction or addition this would make to the figures 9.7 and 14.2.

This, however, as the essayist has stated, does not excuse our present mortality, which is high because of delayed diagnosis, delayed treatment, and possibly injudicious treatment.

Delayed diagnosis is most often due to confusion in the picture. The typical case seldom is missed; it is the unusual or atypical case that causes the slip. Several years ago Livingstone found that between 20 per cent and 30 per cent of appendicitis cases were atypical in the absence of one or more of the cardinal signs. In our own series 20.6 per cent did not vomit, 28.8 per cent had no fever, 18.6 per cent no leukocytosis over 10,000, and 16.9 per cent had no McBurney point reference. In fact, in 30.2 per cent the appendix was in the pelvis and the pain was epigastric and not over McBurney's point. For this reason we should stress pain localized not over McBurney's point but over the appendix. Too many of us depend upon localized pain, tenderness, and rigidity over McBurney's point for a diagnosis and miss it if we fail to appreciate Livingstone's atypical percentage.

Persistent localized pain, tenderness, and rigidity associated with nausea or vomiting and bowel interference, and lasting over 6 hours should make us think of a surgical condition. In adults 75 per cent of acute inflammation in the abdomen and in children 90 per cent is concerned with the appendix.

Delayed treatment also adds its toll. As the speaker has remarked the education of the public will help reduce this. Acute abdominal pain lasting more than 6 hours without diarrhea should mean medical consultation and not a cathartic.

A very prominent New England surgeon stated some months ago that the ratio of peritonitis secondary to appendicitis in the doctors' families as compared to the lay families was as 25 is to 18, which means misplaced intelligence in delay or fear to face the issue. We have all had this experience.

The profession must discard the ice cap once and for all as a definitive treatment.

Regarding injudicious treatment, I gathered from the speaker's paper that he is in favor of operation unless a patient is in extremis or at least too sick for any treatment. If I am wrong will he correct me? On our service every case is operated upon unless the patient is in desperate condition, that is, with distention, silent abdomen, high pulse, high temperature, cold extremities, and low blood pressure. Nothing can save such a patient, not even the Ochsner treatment. All other cases including those with generalized rigidity, absolute abdominal silence, with high temperature, high leukocyte count, and pulse are operated upon through a gridiron incision. Too often the above picture has been diagnosed general peritonitis before operation, when at operation the appendix was not even perforated and the general abdominal picture was due to cloudy fluid only, the abdomen being closed without drains. This patient's condition, treated by the waiting method, could easily have been converted into a localized abscess, and we could pat ourselves on the back as having vindicated the waiting treatment; or it could progress to a general peritonitis and death, and we could then say "See, it was too late."

Ashhurst stated that a patient with a diagnosis of acute general peritonitis who recovered without drainage never had general peritonitis.

JOHN W. DIXON, Pittsburgh: What has impressed us most is the high mortality in the late cases. How to reduce the number of late cases is the question. We have learned through the years that education is a very slow process.

Dr. Donaldson spoke of the treatment of a certain class of these patients by the Ochsner method. We are coming to think more and more that there are many of the late cases that should be treated by the Ochsner method in the hospital, not in the home. We have tried out a fair number of cases according to the 2 plans and have kept very careful statistics. We have found that the cases which were submitted to a reasonable operative delay had 1.2 per cent lower mortality than the ones which were operated upon immediately. We have also found that the complications which we so much dread following appendectomy, such as fecal fistula, intestinal obstruction, and subdiaphragmatic abscess, have been reduced to one-fifth of their incidence in the early operations. We do not know that this is conclusive but it is certainly more satisfactory to operate in a clean, or comparatively clean, field than in a field that is the seat of an intense infection.

OVERWHELMING INFECTIONS OF THE UPPER RESPIRATORY TRACT*†

EDWARD S. THORPE, JR., M.D., PHILADELPHIA

The pediatrician is especially favored by the blessing that most of his patients tend to recover. Especially is this true in modern practice. Occasionally, however, even the pediatrician is brought face to face with the tragic illness of a child, previously healthy, but overwhelmed by an infection of a virulent type. At times such a virulent infection may be caused by some well-known organism, may run through the characteristic course, however brief, and may present typical signs of the usual syndrome produced by that organism. On the other hand, one meets with a number of cases of such puzzling etiology, of such bizarre or confusing symptomatology, of such short duration, of such uniformly fatal termination that they defy adequate explanation of their devastating potentialities, even after the most careful examination of necropsy material, because of the insignificance of the pathological changes produced.

For the past 10 years, my interest has been aroused from time to time by the appearance of cases of this latter type. Evaluation of the sequence of symptoms and clinical findings presented by these children and of the pathological variations revealed at necropsy has led me to believe that these infections usually originated in the upper respiratory tract, that they speedily produced violent symptoms referable to the central nervous system, and that the children were overwhelmed so early in the course of the disease by an exotoxin of such virulence that the bacteria themselves had not yet invaded the tissues of the respiratory tract and nervous system. And I have been drawn to this latter conclusion because of the paucity of morbid changes present even when the tissues obtained at necropsy were subjected to careful scrutiny.

One always feels hesitant to announce the description of a new disease entity or a new syndrome. A new disease is not being described here, as other clinicians must have observed cases similar to the ones herewith detailed. It is possible that descriptions of such cases have appeared in the medical literature, but I have not been able to find any references.

Cognizance has been taken of many papers on the subject of "Acute Nondiphtheritic Laryngitis," of others entitled "Acute Nonsuppurative" or "Acute Obstructive Nondiphtheritic Laryn-

gitis." There is a growing literature on the subject of "Acute Serous Encephalitis," headed by the paper by Brown and Symmers. And many rapidly fatal cases diagnosed influenza or la grippe have been reported.

Perhaps all the cases described in papers bearing these several titles are closely allied to the cases I have studied. However, many cases described as "Acute Obstructive Nondiphtheritic Laryngitis," or similar diagnoses responded favorably to tracheotomy and measures directed toward the relief of obstructed respiration and anoxemia whereas the mortality in my series of cases was 100 per cent. My cases cannot readily be classified as "Acute Serous Encephalitis" following Brown and Symmers since these authors chose to emphasize the morbid changes found in the central nervous system and to ignore symptoms referable to the upper respiratory tract which they admit were present in their cases.

Fortunately, these cases do not occur with any marked frequency. I have seen only 4 to 6 per year during the last 4 years at the Philadelphia General Hospital where there are about 1800 admissions to the Children's Division yearly. Furthermore, there seems to be only slight concentration of cases during the winter months, occasional cases having appeared in all seasons.

At this time it would be impossible to present a complete analysis of all the cases which I have observed or which have been admitted to those hospitals which I visit. In order that there shall be no misunderstanding as to the type of case observed, summaries will be presented of the clinical details of 2 of these cases. Assurance is given that the rest varied little if at all from these models. The gross morbid and histological changes observed in the several organs were monotonously similar for all cases on which necropsies were permitted, and, in order to prevent needless repetition, a single pathological report will be summarized.

Most of the patients in the series have been infants but the rest have ranged in age up to 10 years. However, my attention has recently been called to the occurrence of this disease in an adolescent white boy age 16. All of these children enjoyed reasonably good health and had achieved at least an average nutritional condition prior to the fatal illness.

CASE 1.—E. R., white female infant age four months. Birth was normal and the previous history had been uneventful. Breast fed and at the time of onset weighed 17 pounds. On the morning of Oct. 20, 1924, the parents

* Read before the Section on Pediatrics of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 2, 1934.

† From the Department of Pediatrics of the Medical School of the University of Pennsylvania and the Pediatric Division of the Philadelphia General Hospital.

noted that she had slight fever, coryza and cough, and seemed fretful. The illness seemed relatively unimportant during the balance of the day. At 6:30 a. m. on Oct. 21, she had a generalized convulsion; with only slight intermissions, she remained in a convulsive state until her death that evening. Examination showed a well nourished baby who was comatose and cyanotic. The fontanelle was a little tense and the body somewhat rigid. The temperature was 102°F, pulse rate 150, and the respiratory rate 50 per minute. An acute inflammation of the upper respiratory tract and associated structures, including the larynx was observed. The respiratory efforts were labored as if the upper air passage was obstructed. Auscultation of the lungs showed rhonchi and musical râles, but no definite consolidation. Responses to the peripheral reflexes were all exaggerated. There was a leukocytosis of 57,000 with 78 per cent polymorphonuclears. Lumbar puncture revealed clear fluid under practically normal pressure and there was no pleocytosis of this fluid, neither were there any significant chemical changes. No therapeutic measure attempted seemed to have any effect upon the convulsions, dyspnea or cyanosis. The child died early in the evening, apparently overwhelmed by the toxic effects of some infection.

CASE 2.—L. W., a fine, well nourished white girl age 19 months who was admitted during the afternoon of Dec. 22, 1933. Normal birth, breast fed, and during infancy had been observed from time to time in the Out-patient Department. Its growth and development had been normal and it had been rather free from upsets and infections during its life. A mild attack of measles in the spring of 1933 marred an otherwise uneventful record. For 2 days prior to admission to the hospital the mother had noted that the child seemed indisposed but no definite symptoms noted. Early on the morning of Dec. 22, the baby seemed very sick and exhibited high fever, slight cough, extreme dyspnea and then cyanosis. Soon it had a generalized convulsion and remained in a convulsive state until death. Examination proved that it was well nourished, that it was extremely toxic, comatose and cyanotic. One side of the body was rigid and the other in constant clonic convulsive movement. The breathing was labored and rapid, all of the accessory muscles being used. The regularity of breathing was at times interfered with by the severity of the convulsions. The temperature of the body was 97°F. on admission but rapidly rose to 106°F. Further examinations revealed an acute inflammation of the upper respiratory tract with moderate edema of the glottis and larynx. The lungs were clear. Responses of the peripheral reflexes were varied due to the convulsions but usually were exaggerated. The eyegrounds showed slight papilledema. There was a moderate polymorphonuclear leukocytosis.

Lumbar puncture revealed clear fluid under moderately increased pressure with no pleocytosis and no chemical changes.

All measures directed toward relief of the convulsions and dyspnea were unavailing. Even tracheotomy afforded very little change in the dyspnea and cyanosis. The child died about 14 hours after the onset of the more outstanding symptoms.

A complete necropsy showed an inflammation of the upper respiratory tract with slight edema of the larynx. There was slight pulmonary edema; slight hypertrophy of the lymph nodes of the neck and mediastinum; slight toxic nephrosis; and slight toxic hepatitis and splenitis. There was moderate congestion of the brain and cord; moderate edema of the pia-arachnoid and dura with

slight infiltration by lymphocytes and a few phagocytic cells. There was a striking endarteritis of the smaller vessels of the brain, particularly those in the pons, medulla and in the region of the basal nuclei.

The cellular changes of the brain structure itself in these regions were severe. The brain was diagnosed as "toxic cerebritis" or "acute encephalosis." Cultures of the heart blood, cerebrospinal fluid, and those of the upper respiratory tract all revealed the presence of a markedly hemolytic strain of streptococci.

The clinical courses and pathological findings just reported would seem to indicate that one had to deal with an infection which primarily involved the upper respiratory tract and that the offending organism was a virulent strain of hemolytic streptococcus. Apparently there was little or no actual invasion of the tissues by the organisms except in the nasopharynx, and it is suggested that all of the other changes were probably due to an exotoxin of extreme virulence.

The changes noted in the larynx and in other organs were certainly of the type noted in other toxemias. The changes noted in the brain were largely of the type seen in extreme toxemias or in rapidly fatal cases of poisoning by carbon monoxide. To a slight extent the pathological changes may have been due to the anoxemia produced partly by obstruction to respiration and partly to the convulsive state. I am aware of the fact that this latter explanation is not in the best repute among competent neuropathologists. Certain it is that the brain exhibited none of those pathological changes which characterize poliomyelitis or encephalitis lethargica of the epidemic type.

The description of the lesions observed in the brains of those patients examined by Brown and Symmers and others and diagnosed as acute serous encephalitis more or less fits the lesions observed in these cases. However, congestion of the brain was more marked in their cases as was the edema about the cells. If I am not mistaken the cellular degeneration in the cases of this series was more severe but the change noted in the endothelium of the smaller vessels was similar.

Here then is the clinical picture of a devastating disease which, regardless of the nomenclature and treatment, is uniformly fatal in a short time, ranging from a few hours to a few days. The condition is of rapid onset and is apparently initiated by such vague symptoms as loss of appetite, irritability or lassitude, vomiting, notably by coryza and cough, the foregoing followed by the more alarming symptoms of high fever, dyspnea, cyanosis, and by signs referable to the central nervous system. The most striking feature of these latter signs is the almost continu-

ous convulsive state which is absolutely uncontrollable by any of the measures commonly employed for this purpose, including the use of chloral, morphine, magnesium sulphate, relief of pressure by drainage, or rapid dehydration by strong solutions of glucose.

The cyanosis and obstruction to respiration seem to be uncontrollable by tracheotomy and the administration of oxygen. This would indicate that the respiratory dysfunction is due more to the toxic changes in those centers which control respiration than to actual obstruction of the air passages. Undoubtedly a vicious circle is established.

It would seem that if such cases could be recognized early enough in course and treated vigorously by means of a potent polyvalent antiserum a few of these children might recover. None of my cases has recovered, but it is probable that I have not been able to procure a serum which would fulfill all the criteria indicated.

If severe toxic pathological changes occur in the endothelium of the small end arteries of the brain and in the vital cells of the brain substance itself, one cannot help but feel pessimistic about saving such patients no matter what measures might be employed. It does seem possible such

highly specialized cells of the central nervous system could recover.

However inaptly this disease as typified by the 2 cases presented may have been described and no matter how one diagnoses it,¹ "the fact remains that the disease challenges attention both from the standpoint of recognition at the bedside and further inquiry into its nature and cause." Reports of studies which are under way or projected are promised by the author, but it is hoped that recognition and study of these tragic cases will be undertaken in other centers.

36th and Walnut Streets.

REFERENCE

1. BROWN, CHARLES L. AND SYMMERS, DOUGLAS: "Acute Serous Encephalitis," *Am. J. Dis. Child.*, 29: 174-181 (Feb.) 1925.

ABSTRACT OF DISCUSSION

JOHN M. HIGGINS (Sayre): I have seen several cases which I think fall into the category that Dr. Thorpe has described. In some cases permission for necropsy could not be secured. My failure to give an adequate diagnosis simply was that I was not sufficiently keen. In other cases in which there was a necropsy, I couldn't find enough pathologic change to justify any definite diagnosis. After listening to this paper, I realize that probably there are many more cases of this kind than we have appreciated. This is something that demands careful attention.

DIFFERENTIAL DIAGNOSIS OF GENITAL LESIONS*

DAVID P. McCUNE, M.D., MCKEESPORT, PA.

From reading or listening to papers read before scientific sessions of the various urologic organizations, it appears that there has been a tendency in recent years to neglect or evade the commoner and simpler lesions that are seen about the genitals.

From the standpoint of public health and high grade medical practice, it is important that an early and accurate diagnosis of these genital lesions be made and that appropriate treatment be promptly instituted, for therein lie the greatest possibilities for the preservation of the patient. Otherwise, he may become a liability to himself, to his family, and to the community.

In both private and clinic practice in an industrial district from which the material for this discussion was gathered, the syphilitic lesion is by far the most common. Despite the efforts to educate the medical profession regarding the importance of the early recognition of the syphilitic chancre, many patients appear with advanced secondary lesions. Most of these have been seen

by a physician in the early primary stage. Many have had a mercury or a bismuth powder prescribed, often by a druggist. If the sore promptly healed, they were informed that the lesion was a simple ulcer. On the other hand, many have received antisyphilitic treatment for penile lesions simply because syphilis was suspected but not diagnosed without having had dark-field examinations or serologic tests.

These patients justly resent their uncertain status in after years; they never know whether they had syphilis or whether or not it might some day become manifest because of inadequate treatment. Economic conditions such as the present sharpen these patients' criticism of such haphazard treatment on the part of some practitioners. We believe that this situation should and can be improved. It behooves us to do everything in our power to urge that antiseptics should not be used on genital lesions until thorough and exhaustive tests have been made to confirm the presence or absence of early syphilis. This deficiency we find is not limited to older practitioners. Recent graduates serving their

* Read before the Section on Urology of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 3, 1934.

internships are inclined to devote their time largely to acutely ill and surgical patients, failing to grasp opportunities offered them in the outpatient department which will form the very foundations of their future practices and prepare them to avoid pitfalls that may mean so much to both patient and physician.

Without attempting to present the complete picture of the early genital chancre, we can state that the syphilitic chancre may be single or multiple. If seen early it is a small, flat, glistening, superficial, and painless ulcer, which, upon curetting with gauze, exudes bloody serum. When the bloody serum is sponged away there follows a very free exudate of clear serum, which usually teems with *Spirochaeta pallida*. The swelling of the adjacent lymph nodes is usually painless. Quite a large percentage of them, however, are atypical. These are a few facts that may be reemphasized.

Syphilitic chancres occurring at the mucocutaneous junction on the prepuce usually cause a noninflammatory edema of the whole prepuce. If there is a soft chancre at the same location, multiple lesions in each of the fissures present may be found, accompanied by an acute inflammatory condition, causing severe pain when an attempt is made to retract the prepuce. On the frenum, due to trauma incident to retracting, chancres are apt to be easily confused with chancroid.

Urethral chancres are rare. If there is a history of exposure plus a scant watery urethral discharge negative for pus and gonococci, the urethra should be stripped and a dark-field examination made of the resulting drop. Later, noninflammatory edema begins at the frenum and extends to the prepuce. Still later induration can be felt or the sore erodes so that it can be seen when the meatal lips are separated. Stenosis of the meatus is to be expected after the lesion heals.

If a lesion is concealed behind a prepuce that cannot be retracted, a dark-field examination of the secretion expressed from the preputial orifice should be made after carefully irrigating the preputial sac with sterile water or normal saline. If a dorsal slit is done, and chancroid is found and promptly and vigorously treated, little damage results. In our experience, the cut surface has healed as rapidly as the lesion.

Chancroidal ulcers usually appear within a week after exposure. They are ulcers from the beginning. They are usually multiple and very painful; they have irregular geographical outlines with undermined edges; they are more or less granular and tend to spread on one side while healing on the other. They seldom be-

come indurated unless a mixed infection is present, and then it is only the base that is indurated. They are likely to become chronic. If they are cauterized and allowed to drain freely with the aid of wet dressings, there is little involvement of the adjacent lymph nodes. We have seen no glandular suppuration when they are treated in this manner. However, if a scab is allowed to form, lymphadenitis results and usually ends in suppuration.

Less than 10 per cent of penile lesions seen by us are chancroid. This does not coincide with the experiences of many others nor with the experiences of the writer while attached to a base hospital during the late war when approximately 40 per cent of all genital ulcers seen were chancroid. If lack of cleanliness is a factor in the development of this condition, we are at a loss to explain its paucity in this district where the clinic patient is certainly no cleaner than the average.

Herpes progenitalis is ushered in by burning and itching. The lesions are vesicular and are very apt to recur; they are usually multiple, appearing in groups. If they are cauterized, the resulting burn may be confused with an initial lesion of syphilis because it then becomes hard, resembling syphilitic induration, and may leave a scar. The more they are irritated by treatment, the worse they become. When handled they are painful. The liquid in the vesicle which is at first clear later becomes cloudy from pus. They do not bleed easily when curetted, and the drop examined with dark-field shows an abundance of white blood cells. If one sees a primary lesion of syphilis before the vesicle has ruptured, the liquid will be quite clear, containing a few red blood cells, an occasional leukocyte and many spirochetes, and exuding clear serum freely and with little pain when curetted with gauze.

In scabies, lesions are nearly always present on the skin of the penis. These may become infected with the *Spirochaeta pallida*. The itching accompanying scabies is apt to be confused with that which occurs following arsphenamine treatment, or it may be aggravated by that treatment. Though less common, the same may occur in herpes.

Gangrenous balanitis consists of several lesions, is always seen on a long prepuce, and spreads very rapidly causing marked destruction of tissue. It does not develop in the presence of air and heals very rapidly when treated by mild antiseptics and exposure to air. The odor is that of stale ham fat and there is marked pain. The diagnosis of nonspecific balanitis is easily made with the aid of the microscope. If this instrument is not available and the prepuce cannot be

retracted, thorough irrigation of the preputial cavity followed by the two-glass test will show both glasses clear.

Traumatic lesions are usually irregular in outline with margins poorly defined or absent. If not new, they are surrounded by areas of inflammation. On account of their situation they are painful and become infected easily. It must be borne in mind, however, that a syphilitic infection may be superimposed upon a traumatic lesion.

Abscess of Tyson's glands may occur as a gonococcal infection without the presence of urethral gonorrhea and, if cared for properly, without subsequent infection of the urethra. Prompt incision, drainage, and destruction of the infected gland with the high frequency current, using 25 per cent copper sulphate as a conductor, gives excellent results.

Papillomata progenitalis or so-called venereal warts occur most commonly on the sulcus, but may appear on any part of the genitals, occasionally being found protruding from the urethral orifice. They are exceedingly vascular and easily traumatized. Occasionally they are the seat of an initial syphilitic lesion. When a patient with a history of exposure presents himself complaining that such growths have been bleeding recently, it is well to be on the lookout for spirochetes. Microscopic examination of a section may reveal malignant changes at the base. However, in more than 20 years, we have seen no malignancy develop on the site of a papilloma that had been early and thoroughly removed.

Genital epithelioma may be easily confused with chancre or gunma. In the male it usually occurs on the glans or undersurface of the prepuce. Slowness of development, absence of induration, and confluent, slightly enlarged adjacent lymphatic glands, with the absence of positive serology or syphiloderma, favor the former. If the diagnosis is doubtful, the therapeutic test of giving some antisyphilitic treatment does no harm except that the loss of time delays more appropriate and vigorous treatment. As in epithelioma in other parts of the body, irritation and trauma seem to predispose.

We have seen no epithelioma of the penis in the circumcised; the age average is more than 50 years. Cases have been reported among the Turks; but it must be remembered that the age of circumcision among the Mohammedans is from 11 years to 13 years, and that the operations are almost invariably crudely performed, leaving many loose tags.

Epithelioma of the scrotum is rare. It begins as a small moist wart or a moist plaque which

rapidly ulcerates. The inguinal lymph nodes become involved early. It is elevated whereas most of the other lesions commonly seen on the scrotum are flat.

No effort has been made to cover completely the subject of genital lesions but rather to emphasize the important phase of this problem in the hope of stimulating early and energetic treatment after accurate diagnosis.

Suite 208 Masonic Building.

ABSTRACT OF DISCUSSION

WILLIAM HUTCHISON (McKeesport): An early and accurate diagnosis of the syphilitic chancre should be made before the appearance of the secondary eruption, and treatment should be instituted at this early stage. Much as we deplore and condemn the prescribing for and treatment of these lesions by druggists, we must not skip lightly over the defects in our own ranks. We cannot condone the practice of instituting treatment with antisyphilitic drugs on mere suspicion when, in these days of readily available consultation and laboratory aid, accurate diagnosis can and should be made. The use of normal salt solution or even plain water dressings during the short period in which darkfield examination can be done is very much better practice than the use of bismuth or calamine powder on patients without darkfield examination. Sodium chloride does not promote healing of syphilitic lesions but tends rather to bring to the surface spirochetes which previously may have been difficult to discover in the darkfield.

Since the hope for improvement in conditions of practice such as Dr. McCune has mentioned usually is placed in the younger men because the training today is better, their failure in the situation is regrettable.

The dorsal split to expose penile lesions is not only good diagnostic practice but much to be desired. Subsequent circumcision, if necessary to remove excessive flaps, is relatively simple and easy.

Our experience with chancroidal lesions is perhaps unusual, but I agree with Dr. McCune that we have had comparatively little difficulty in their management. Herpes progenitalis, usually readily distinguished from syphilis when a case history has been taken and the recommended procedure of application of salt solution dressings and repeated darkfield examinations has been followed, will not lead the practitioner into the position that he must explain to an irate patient why the sores have recurred during the course of antisyphilitic treatment designed to eliminate these sores forever. Such cases have come to our attention entirely too often. Balanitis and posthitis provide cause for preventive as well as curative treatment.

In regard to venereal warts, I recall a patient who presented himself with no evident primary lesion. After 3 negative Wassermanns at intervals of 2 weeks, the warts were cauterized. About 4 weeks after this procedure, when the penile lesions had entirely healed, the Wassermann reaction was reported positive and a secondary lesion appeared. This patient reported to the clinic at intervals of twice a week and was constantly under observation. His case emphasizes very strongly the necessity of being ever watchful for the elusive spirochete.

In a consideration of the treatment of epithelioma with the high-frequency knife, it is at times possible to remove sections for biopsy. A microscopic examina-

tion of these pieces of tissue aids materially in establishing the diagnosis.

The various lesions produced by drugs might be mentioned in a consideration of the differential diagnosis of genital lesions. Occasionally the diagnosis is not established until the history is reviewed or the patient returns to his pill and the offending drug causes a recurrence.

Dr. McCune stated that the major purpose of his paper is to make the doctor conscious of the extreme importance of an early accurate diagnosis of syphilis, established by darkfield or Wassermann examination. It is to be hoped that the attention of urologists, particularly those who are teaching, will be directed to the correction of the lax attitude of younger men towards this problem.

GEORGE HOLLIDAY (Pittsburgh): The necessity of a thorough knowledge of the appearance of the lesions found about the genitalia cannot be emphasized too strongly. It means a great deal to know what a lesion really is. There are a great many similar ones which are hard to distinguish apart.

To think that multiple lesions can scarcely be syphilis is not correct. I have seen Jewish fellows with as many as 11 primary lesions. I know another patient with 8 primary lesions on the scrotum. So the multiplicity of lesions must not have much consideration. The chancroid may be multiple, too, and frequently is.

It is regrettable that, in the medical schools, there is not a better course given in the venereal diseases. It is not difficult, if a clinic is available where you can demonstrate patients and the differential diagnosis, to teach the students, giving them a very good idea of the essentials in the diagnosis.

One feature which I have always considered and taught the younger men to consider first is: When you start to examine a man who says he has a lesion on his penis or elsewhere, before you examine that lesion palpate the inguinal glands. If it is a primary lesion you can make your diagnosis before you have observed

the lesion at all. Pay more attention to the appearance so that you can make your diagnosis without the laboratory reports and so forth. If you are familiar with the clinical appearances, you can have a very good idea as to what the lesion is without laboratory procedure.

RALPH P. BEATTY (Uniontown, Pa.): I should like to ask a question regarding early diagnosis of the primary lesion in those cases in which the lesion has been treated by some medication making it impossible to get a positive darkfield. Has any recourse been had to the puncture of the lymph glands in the region and the use of a little saline solution to aspirate some serum from the glands in order to look for the spirochete in the ordinary darkfield way? That has been recommended, but I have not had much experience with it and my results have not been satisfactory. I should like to know the opinion of the men here who do that kind of work, particularly Dr. McCune and Dr. Holliday, regarding their results in this type of procedure.

DR. McCUNE (in closing): Regarding Dr. Beatty's question, we have very little trouble getting positive darkfields on sores that have had antiseptics used on them provided we have patience. Very frequently we get them, even though they have had an antiseptic used on them, if not the first time, then in 24 or 48 hours. In the meantime we use the normal salt solution or even sterile water dressings. Very often we find the spirochetes on the second examination. We frequently discover spirochetes by aspiration of the lymph glands; but we find it necessary to use this procedure in very few cases.

When I was an intern I had the same feeling that the average intern has now. When I finished my internship I was not going to treat these conditions. The intern wants to do the big things. The paper was not meant as a knock at the younger men but rather as an effort to stimulate them to grasp the opportunity while interns to study these conditions and thus be prepared to deal with them later.

INFECTION FOLLOWING MANDIBULAR INJECTIONS*

J. MERLE RUSSELL, M.D., ERIE, PA.

Parapharyngeal infections are of interest, as each year some phase of them must be treated. Many of them are serious, a few fatal.

ANATOMY AND SURGICAL APPROACH

For the anatomy of, and surgical approach to, this area reference is given to an article by Harris P. Mosher in the *Transactions of the American Academy of Ophthalmology and Oto-Laryngology* for 1929. This article is excellent, and the following is a quotation from it: "The pharyngomaxillary fossa or space is more of a potential than an actual space until filled with pus. In the adult it may be considered as a cone, the base of which is attached to the base of the skull around the jugular foramen. The apex of the cone is at the hyoid bone. Reinforcing the

fossa on the outside is the parotid fossa; below is the submaxillary fossa. The carotid sheath emerges from the apex of the cone and continues the fossa through the neck to the thorax. The inner boundary of the fossa is the superior constrictor muscle with the tonsil attached to it. The outer boundary below is the internal pterygoid muscle lining the inner surface of the ascending ramus of the jaw and meeting the masseter on the outside. The outer boundary above is the parotid gland. Posteriorly the prevertebral muscles and fascia bound the fossa. The fossa is divided into unequal parts by the styloid process and muscles rising from it. The fossa, from its anatomical position, can be infected from the following structures: (1) Tonsils; (2) glands in the fossa; (3) parotid gland or tip of mastoid; (4) cervical vertebræ. The chief structure from the standpoint of infection

* Read before the Section on Eye, Ear, Nose, and Throat Diseases of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 3, 1934.

in the fossa is the internal jugular vein. Unrecognized infection or thrombosis of the vein with general septicemia still takes its weekly toll of victims under the guise of blood poisoning of unknown origin."

In the same publication in 1932, August Beck reports 24 cases of parapharyngeal infection with full details as to the history, symptomatology, anatomy and surgery. This is a very comprehensive paper and is also recommended for your reading. Dr. Beck mentions one case of infection due to a local anesthetic being injected along the posterior surface of the maxilla toward the sphenopalatine fossa. He reports none from mandibular block injection.

During the past few years, 4 cases of zygomatic fossa infection have been seen which were due to mandibular injections. These patients fortunately recovered. I have heard of 3 others who died as the result of infection following mandibular block anesthesia.

ETIOLOGY

The etiology may be stated as follows: (1) Unsterile solutions, needle, or syringe; (2) faulty preparation at the site of injection; (3) contamination at the site of injection, or needle after preparation; (4) injection through infected tissues; (5) trauma to the blood vessels by needle puncture of their walls; (6) devitalization of the tissues by the use of too much adrenalin; (7) extension backward of the infection from the infected tooth; and, (8) trauma from extractions.

In regard to causes 5 and 6 some dentists think that a dry socket may be caused by too prolonged action of the adrenalin. The stronger the solution, the longer is the ischemic effect. A physician in the West told me that a certain dentist had many cases of osteomyelitis of the jaw; in fact, he said that he had seen none from the other dentists. The reasons, he thought, was interference with the blood supply. Trauma and adrenalin can make a favorable place for infections to develop by devitalizing the tissues.

As to causes 7 and 8, I have not seen a case of pharyngomaxillary involvement in which a nerve block had not been done.

SYMPTOMS

It is usually several days before you are called to see these cases. There is a history of tooth extraction under block anesthesia. Increasing difficulty in opening the jaws and swallowing is experienced. There is swelling of the parotid region, over the joint area, at the angle of the jaw, and perhaps in the temple. There is pain over the whole side of the head and neck, through the ear, and on talking and swallowing.

The temperature varies from 99 to 102° F. In the pharynx the tissues are swollen and the tonsil pushed inward, but there is no inflammation about the tonsil.

The history of tooth extraction under block anesthesia, trismus, and the swelling of the parotid area makes one think of a deep infection, of a zygomatic fossa infection. In the peritonsillar abscess, the patient can open his mouth if he will; in a zygomatic fossa involvement, he cannot open his mouth because of the fixation by the pterygoid muscles. Swelling in the floor of the mouth or swelling externally below the angle of the jaw indicates a submaxillary space infection.

COMPLICATIONS

Thrombosis of the veins may take place. Thrombosis of the jugular vein would be evidenced by chills, sweats, and high excursions of temperature. Waldapfel in speaking of thrombosis from tonsil infections states that "the patient's fate does not depend on the condition of the vessels, but whether we are able to overcome the abscess." Meningitis is possible by way of the branches of the fifth nerve.

TREATMENT

Early and adequate drainage is the best treatment. Under general anesthesia drainage should be made internally as well as externally; this, in fact, amounts almost to through and through drainage. The skin and subcutaneous tissue should be adequately incised within the zone of inflammation, and a deep opening with a curved hemostat should be made. Drainage should be with a rubber tube as big as a finger. The uninfected tissues should not be opened if this can be avoided. Should drainage obtained in this manner not be adequate or should there be symptoms of venous thrombosis, then a larger incision and an opening of the tissues down to the sheath of the carotid artery leading to the base of the skull upward and to the mediastinum downward, may need to be done, for through this approach the whole area can be explored. Another approach for drainage in desperate cases should be kept in mind, and that is through the maxillary sinus gaining access to the zygomatic fossa by removal of the posterior wall of the maxillary sinus.

The moral of this story is that any deep injection may be followed by an infection and at times in a fairly inaccessible place, and that we must be prepared to take care of these infections.

813 Sassafras Street.

ERRATUM: On page 989, first column, second paragraph, September issue, the words "by F. M. McPhedran" were inserted through an error.

EDITORIALS

THE 1934 SESSION

The Eighty-fourth Annual Session of The Medical Society of the State of Pennsylvania was held at Wilkes-Barre, Oct. 1 to 4; and Wilkes-Barre's status as an ideal Convention City was firmly established. Wilkes-Barre is the anthracite capital of America, the metropolis of the Wyoming Valley, and the county seat of Luzerne County.

The Luzerne County Medical Society, the third largest of our component societies, was host. In the Convention Number of this county society's bulletin appears the following welcome: "Out of a splendid heritage of the past has been builded a program of scientific purpose and social pleasure which you are to enjoy. It is our sincere hope that nothing will lack to make this possible. May nothing interfere to make your visit with us memorable, profitable, and pleasurable." We can assure our hosts that the welcome thus detailed was keenly enjoyed in the fullest measure and we extend grateful appreciation. To Peter P. Mayock, general chairman of the Convention committees, and to the personnel thereof our congratulations are abundantly given. Their efforts made possible a most satisfactory and far-reaching meeting. The headquarters of the host society is an attractive building, and the House of Delegates held 2 meetings in its auditorium. Each member of the host society was an individual bureau of information and easily could be spotted by a red ribbon insignia worn on the lapel of the coat; on the button of which was "Ask Me."

The State Society has held its Annual Session in Wilkes-Barre on 2 previous occasions, 1866 and 1900. At the previous annual session held in Wilkes-Barre, 34 years ago, the late distinguished surgeon, George W. Guthrie of Wilkes-Barre, was president of the State Society. It must have been a great thrill to his son, Donald Guthrie, "The Little Corporal," surgeon-in-chief of the Packer Hospital, Sayre, who was born in Wilkes-Barre, as president of the State Society to have presided at this annual session. It must have been a great sense of satisfaction, as these thoughts came to him, when he called to order the General Meeting.

The General Meeting was called to order Oct. 2, at 10:15 a. m., in the Irem Temple by President Donald Guthrie, Sayre. The invocation was given by the Reverend F. L. Flinchbaugh, rector, St. Stevens' Episcopal Church, Wilkes-

Barre, and while the audience remained standing, Robert G. Barckley, Milford, chairman, submitted the Report of the Committee on Necrology; there were 152 deaths during the year. Addresses of Welcome were delivered by Mayor Charles N. Loveland, Wilkes-Barre; and Edward W. Bixby, Wilkes-Barre, president, Luzerne County Medical Society. Richard A. Kern, Philadelphia, chairman, Committee on Scientific Work, presented the Scientific Program. This program was well balanced, the symposia well selected and the 12 guest speakers more than worth while. Dr. Kern again ably demonstrated his keen insight of matters medical by the very acceptable program on scientific work. Angelo L. Luchi, Wilkes-Barre, chairman, Committee on Scientific Exhibit, announced this feature. To Dr. Luchi is extended the greatest praise for the outstanding achievements of this committee, the enthusiastic approval of which is well merited. This committee in the main coöperated to the fullest extent with the Committee on Scientific Work, in order to have exhibits that would very satisfactorily demonstrate and visualize the text of the scientific papers. The "group exhibits" were inspired by President Guthrie's program of postgraduate instruction which afforded an intensive review of the subjects presented. There were 111 exhibits, the greatest number and most complete ever assembled in the history of the State Society. Dr. Luchi stressed the following innovations: Group exhibits; all motion pictures non-commercial; past residents' luncheons, given by Mercy and Wilkes-Barre General Hospitals at the hospitals; and luncheon to scientific exhibitors as guests of local Committee on Scientific Exhibit. The latter luncheon was given on the opening day at the Westmoreland Club and was a very nice gesture of hospitality. A gathering of this kind would afford an acceptable opportunity for informative remarks apropos of the activities of this group. Another innovation was the luncheon given to the editors of the various county society bulletins by the local Publicity Committee. In making the announcement of entertainments, Peter P. Mayock, chairman, Committee on Arrangements, announced that through the courtesy of General Motors, 15 automobiles had been placed at the disposal of the visiting physicians.

John H. Corcoran, president of the Pennsylvania State Dental Society, and Frank S. Rogo-

wicz of the Pennsylvania Pharmaceutical Association, were delegates from their respective societies.

Walter F. Donaldson, Pittsburgh, secretary of the State Society, presented the gavel in behalf of the Board of Trustees to Donald Guthrie, the retiring president, who has served continuously as an officer since 1918.

President-elect Moses Behrend, Philadelphia, was installed as president, and delivered the "Presidential Address," which was published in the October number of the JOURNAL. All of our members are urged to read this address in which President Behrend discusses State medicine, health insurance, social service, medical emergency relief, workmen's compensation, etc.

The House of Delegates held 3 meetings and conducted most satisfactorily the business appertaining thereto. The activities of the House were markedly expedited by the very efficient reports of the Reference Committees; it was a joy to witness the manner in which the respective chairmen submitted the same.

The following officers were elected by the House of Delegates, Oct. 3: President-elect, Alexander H. Colwell, Pittsburgh, associate professor of medicine, University of Pittsburgh School of Medicine; vice presidents—*First*, Peter Mayock, Wilkes-Barre; *second*, William G. Tillman, Easton; *third*, Thomas St. Clair, Latrobe; *fourth*, Ward C. Wilson, Clearfield; secretary, Walter F. Donaldson, Pittsburgh (re-elected for the 17th consecutive time); assistant secretary, Henry G. Munson, Philadelphia, (re-elected); treasurer, John B. Lowman, Johnstown, (re-elected); trustees and councilors, Augustus S. Kech, Altoona, sixth councilor district, elected for a second term of 5 years; George C. Yeager, Philadelphia, filling the unexpired term of the late George A. Knowles, first councilor district, was elected for a first term of 5 years; members of the House of Delegates, American Medical Association, Walter F. Donaldson, Pittsburgh; J. Norman Henry, Philadelphia; Samuel P. Mengel, Wilkes-Barre; and Arthur C. Morgan, Philadelphia (all re-elected). In the new scheme of allotment of delegates approved at the 1934 Session of the A. M. A., Pennsylvania is entitled to an additional delegate, and George L. Laverty, Harrisburg, was elected; alternates-designate, W. Burrill Odenatt, Philadelphia; Herbert B. Gibby, Wilkes-Barre; Arthur B. Fleming, Tamaqua; and Cloy G. Brumbaugh, Huntingdon (all re-elected), and William H. Howell, Altoona, to fill the unexpired term of the late Jonathan M. Wainwright, Scranton; alternates-at-large, Patrick E. Biggins, Sharpville; Lewis T. Buck-

man, Wilkes-Barre; James H. Corwin, Washington (re-elected), Hamblen C. Eaton, Warren; Mark K. Gass, Sunbury; George Hay, Johnstown. The Board of Trustees at the organization meeting Oct 4, re-elected Edgar S. Buyers, Norristown, chairman; Augustus S. Kech, Altoona, clerk; and Frank C. Hammond, Philadelphia, editor.

The Board of Trustees held 3 meetings and disposed of many matters of extreme import.

The Irem Temple which accommodated the registration desk, "individual" exhibits of the scientific exhibit, all of the technical exhibit, and the motion pictures, hummed with activity as the members inspected the latest devices designed to facilitate their work and viewed specimens of accomplishments in medical research and listened to the demonstrators in charge of the scientific exhibits. The Temple was transformed into a veritable wonderland of laboratory equipment, surgical instruments, charts, graphs, books, and other valuable accessories. The remainder of the scientific exhibit was housed across the street from the Irem Temple, in the \$2,000,000 Kirby Memorial Health Center, in which the various "group exhibits" were arranged and demonstrations given. The group exhibit on fractures was outstanding and most instructive, not only to the surgeon but more especially to the general practitioner who still does considerable fracture work. Demonstrations of underwater exercises for children with paralyzed limbs and other type of deformities were given in the pool of the Y. W. C. A. building. The motion picture program was most excellent, each film being shown twice on different days. No commercial motion picture was projected.

The technical exhibit also was the largest and best in the history of the Society. The exhibitors were very well pleased with the immediate financial returns as well as the contacts made. This exhibit displays for the doctor much of the daily used accessories. The Society is indebted to the exhibitors for their whole-hearted support.

The Wyoming Historical and Geological Society, in honor of the Convention had an exhibit of instruments and documents used by an earlier generation, part of which was at the Kirby Health Center and part in the Society's old building in the rear of the Osterhout Free Library.

On Tuesday night a buffet supper and entertainment were given in the South Main Street Armory and were thoroughly enjoyed. This feature in former years was designated as a "smoker." At the same time the visiting women physicians were entertained by the women physicians of the Wyoming Valley at dinner at the Victorian. Entertainment was provided.

Wednesday night's festivities started at 6:30 o'clock with the very attractive feature, "Alumni Dinners": University of Pennsylvania, Medico-Chirurgical, Johns Hopkins, Jefferson, University of Pittsburgh, Temple, Georgetown University, and Hahnemann celebrating.

The Public Meeting was held at Irem Temple at 8:15 o'clock. Howard W. Haggard, associate professor of applied physiology, Yale University School of Medicine, delivered a masterly address on "Progress of Medicine." Nearly 2000 were present. Elmer L. Meyers, chairman of the local committee on Public Meeting, presided. Dr. Haggard fluently and interestingly traced the progress of medicine from the medicine man of the dark ages up to the present-day practitioner. The present epoch in medicine was opened when Charles Darwin propounded his theory of evolution. How Pasteur's discovery of bacteria opened up the realm of medical research was detailed. Dr. Haggard stated that the doctor has not reaped his just rewards as a public servant.

The outstanding social event was the President's Reception and Ball, at 9:30 o'clock at the Hotel Mallow-Sterling. The "wimmin folks" readily could have put on a most enjoyable "fashion show" from selections that could have been made from the attractive gowns worn. The usual happiness that permeates this annual function was paramount.

The Golfing Association of the State Society held its eighth annual tournament and dinner Oct. 1, at the Fox Hill Country Club with 125 in attendance. The officers of the State Society were guests. John Welsh Croskey, Philadelphia, president, was toastmaster. The following officers were elected: John Welsh Croskey, Philadelphia, president; Thomas R. Gagon, West Pittston, vice president; Thomas B. McCollough, Pittsburgh, secretary-treasurer; and Paul B. Steele, Pittsburgh, historian. The following prizes were awarded: Low score for 18 holes, McKee Cup, A. L. Houslohner, Wilkes-Barre, score 85; second low score for 18 holes, gold medal, William R. Brewer, Altoona, score 85; third low score for 18 holes, \$15 in merchandise, G. W. West, State College, score 86; low net score for 36 holes, President's cup, Kenneth M. Day, Pittsburgh, score 92-21-71; second low net score for 36 holes, cigarette humidior, J. S. Anderson, Greensburg, score 103-30-73; low gross score for 36 holes, Dr. West; second, Dr. Glenn; low net score for 36 holes, Dr. Steele; second, Homer R. Mather, Latrobe; kickers' handicap, Michael J. Noone, Scranton, and 2d, William D. Stroud, Philadelphia; best low 9-holes score, Wilford L. Thunhurst, Pittsburgh,

score 43; high score for 18 holes, James N. O'Brien, Harrisburg, score 135. Other prizes were awarded the following: Paul H. Shiffer, Stroudsburg; Dennis R. Murdock, Greensburg; and W. Hess Lefever, Lancaster. In the low score for 18 holes match, Drs. Houslohner and Brewer were tied for first place, and they flipped a coin, Dr. Houslohner winning the toss. The golfers as per usual custom disported "before, during, and afterward."

The Woman's Auxiliary to The Medical Society of the State of Pennsylvania had a most satisfactory meeting. The auxiliary dinner was given at the Wilkes-Barre Institute with more than 250 in attendance; Mrs. Augustus S. Kech, Altoona, past president, was toastmaster. The Luzerne County Auxiliary entertained the visiting members of the State Auxiliary at luncheon at the Irem Temple Country Club, in honor of State President Mrs. Edward Lyon, Williamsport; Mrs. W. Burrill Odenatt, Philadelphia, was toastmaster. The reception and tea at Hillside, the country home of Mrs. W. H. Conyngham, sister of President Donald Guthrie, was charmingly delightful. Five members of the local auxiliary who were present at the previous annual session held in Wilkes-Barre in 1900 again graced the receiving line at this reception, Mesdames J. T. Howell, Charles Long, S. P. Mengel, Nathaniel Ross, and W. G. Weaver. The same linen and silver used at the 1900 reception, which was given by the late Mrs. William Lord Conyngham, were used at this reception.

A box luncheon was had at the Kirby Memorial Health Center, followed by a tour of the Center.

President-elect Mrs. Larrie Dodd Sargent was installed as president, and Mrs. W. Burrill Odenatt, Philadelphia, was selected as president-elect. Other officers elected are: Vice presidents—*First*, Mrs. M. J. Noone, Scranton; *second*, Mrs. W. S. Brenholtz, Williamsport; *third*, Mrs. Moses Behrend, Philadelphia; secretary, Mrs. Frank P. Dwyer, Renovo; treasurer, Mrs. E. Kirby Lawson, Harrisburg; and editor, Mrs. George C. Yeager, Philadelphia.

The Wilkes-Barre newspapers are to be profusely thanked for the wonderful publicity given.

The total registration of physicians was 1351, members, 1224; guests, 127. Sixty-one dentists registered. The registration of the Woman's Auxiliary was 472.

The annual luncheon of the Public Charities Association of Pennsylvania was held Oct. 3, at the Mallow-Sterling Hotel.

The Luzerne County Medical Society may rest upon its laurels; the Convention was su-

perbly accomplished. It is to be congratulated too upon the very informative Convention Number of its bulletin.

The next annual session will be held at Harrisburg, Sept. 30 to Oct. 3, 1935.

HONORING TRUDEAU

"Little Red" is a name affectionately regarded by thousands of men and women. It is the name given to a tiny cottage in the Adirondacks built 50 years ago by Dr. Edward Livingston Trudeau, and stands for hope and health to the many tuberculosis victims who have been cured.

Leaving his wife and 2 young children, Trudeau, who had tuberculosis, went to the wilderness of those mountains to die in the clean air he loved. At that time, a diagnosis of tuberculosis was considered a death sentence and the treatment was to keep patients warmly shut within doors. To brave a cold, snowy winter as Trudeau did seemed nothing short of desperate; however, he found curative powers in the sunshine, rest, and outdoor life. His health improved and he wished to help some of the other thousands of tuberculous patients by making it possible for them to go to Saranac Lake.

Trudeau's vision of the present-day method of treatment had its first outward manifestation in the building of the little two-room cottage. Here in 1885 he brought from New York 2 factory girls who were ill with tuberculosis. From this humble beginning has grown his dream-come-true in the many beautiful, scientifically equipped buildings that make up the Cottage Sanatorium at Saranac Lake today. Throughout the country, too, have grown up similar sanatoria which, in Trudeau's words, offer "cure sometimes, relief often, comfort always."

"Little Red," which still stands on its promontory facing Trudeau's well loved pine clad hills, is pictured on the Christmas Seal this year. The 1934 Seal in carrying its message of hope and good health both commemorates the achievements of Trudeau and honors the great sanatorium movement which grew out of his initiative.

The National Tuberculosis Association, of which Trudeau was the first president when it was founded in 1904, will hold its thirty-first

annual meeting at Saranac Lake in June, 1935.

The voluntary tuberculosis program, which is financed by the sale of Christmas Seals, is carried on in this State by the Pennsylvania Tuberculosis Society and its affiliated organizations.

PATENTS AND PERQUISITES

A great deal has been said and much has been written in regard to patents and perquisites.

Section 5 of the Principles of Medical Ethics of the American Medical Association covers this controversial subject as follows:

It is unprofessional to receive remuneration from patents for surgical instruments or medicines; to accept rebates on prescriptions or surgical appliances, or perquisites from attendants who aid in the care of patients.

Notwithstanding this clearly enunciated principle, certain members of the medical profession have not been averse to receiving such perquisites when adroitly or naively offered.

On Sept. 15, 1934, the following letter was sent to the editors of the state medical journals by the Pomeroy Company, New York City, manufacturers of surgical appliances:

We believe you will be interested in knowing that the controversy of over 50 years as to the right or wrong of giving commissions for the recommending of surgical appliances has at last been settled.

Dealers never have been in a position to solve this question so long as many members of the medical profession felt they were entitled to some recompense for being in a position to influence trade. Medical societies could not settle it by passing resolutions with no legal penalty attached.

Now it is against the law and the matter has been settled in a very equitable way. The dealers have been exonerated from any responsibility in the matter as the clause was inserted in the NRA code by the government at the request of the medical societies.

There was enclosed with the letter the following excerpts from the Code of Fair Competition for the Surgical Distributors' Trade, as approved Aug. 24, 1934:

ARTICLE VIII—TRADE PRACTICES

Section 1. No member of the trade shall give, permit to be given, or offer to give, anything of value for the purpose of influencing or rewarding the action of any employee, agent, or representative of another in relation to the business of the employer of such employee, the principal of such agent, or the represented party, without the knowledge of such employer, principal, or party. Commercial bribery provisions shall not be construed to prohibit free and general distribution of articles commonly used for advertising except so far as such articles are actually used for commercial bribery as herein above defined.

For the purposes of this Section, physicians, surgeons, and other professional men and women shall be considered agents or representatives of their patients and/or clients when they offer or recommend the purchase of products of this trade.

B U Y
CHRISTMAS
SEALS



HELP
FIGHT
TUBERCULOSIS

SATURDAY MORNING CLINICS AT THE PHILADELPHIA GENERAL HOSPITAL

These clinics will be conducted during November and December as follows:

November 17

- 11:00 a.m.-11:45 a.m., "Acute Respiratory Infections in Children." William N. Bradley.
 11:45 a.m.-12:15 p.m., "Infections of Ear, Nose, and Throat and Their Complications." Robert J. Hunter.
 12:15 p.m.-1:00 p.m., "Tuberculosis in Infants and Children." Hubert W. Hetherington.
 John O. Bower, *Chairman*

November 24

- 11:00 a.m.-12:00 m., "Clinic on Obstetrics." Barton C. Hirst.
 12:00 m.-1:00 p.m., "Malignant Diseases of the Intestinal Tract." W. Wayne Babcock.
 Russel S. Boles, *Chairman*

December 1

- 11:00 a.m.-12:00 m., "Pneumonia." Samuel A. Loewenberg.
 12:00 m.-1:00 p.m., "Pneumothorax With Demonstration," David A. Cooper.
 Bernard P. Widmann, *Chairman*

December 8

- 11:00 a.m.-11:45 a.m., "Low Back Pain," J. Torrance Rugh.
 11:45 a.m.-12:15 p.m., "Anesthesia," Henry S. Ruth.
 12:15 p.m.-1:00 p.m., "Hernia," Moses Behrend.
 John O. Bower, *Chairman*

December 15

- 11:00 a.m.-11:30 a.m., "Color Blindness in Neurology and Tests for its Detection," John C. Siggins.
 11:30 a.m.-12:15 p.m., "Treatment of Menstrual Disorders," Frank C. Hammond.
 12:15 p.m.-1:00 p.m., "Diagnostic Value of Chest Pain," Frederick J. Kalteyer.
 J. H. Clark, *Chairman*

COMMENTS AND EXCERPTS

Science and Research

According to *Science News Letter*, the Cancer Research Foundation in its first report, states that Drs. Henry J. Ullmann, Fritz Bischoff, and Richard D. Evans, with L. C. Maxwell, chemist, of the Santa Barbara Cottage Hospital, California, have discovered a substance that produces a tenfold decrease in the growth of cancers in mice. This substance is found in the kidney excretion of pregnant women. The substance is not the sex hormone which is found in the kidney excretions of pregnant women and which forms the basis of the Aschheim-Zondek test for pregnancy. The most successful experiment reported is that an amount of this substance equal to 30 times the weight of the mouse contains enough inhibiting substance to produce a ten-fold retardation in the growth of the tumor. So far the studies have been made only on experimental animals and no application of the results has been made to the treatment of human cancer. It is not determined whether the new substance has a

specific effect directly on the cancerous growth or whether it checks the growth indirectly by destroying the growth hormone of the pituitary gland.

Although the average consumption of sugar for each person has increased in recent years, the increased death rate from diabetes is not caused by this increase in sugar consumption nor to changes in the national diet or living habits, according to Dr. Charles Bolduan, director of health education of the New York City Department of Health. Dr. Bolduan stated that 50 or 60 years ago diabetes was considered a rare disease, though he concludes it was no more rare 50 years ago than it is today, but that fewer cases were detected because no routine examinations for diabetes were made. Dr. Bolduan accounts for the once greater number of cases among men than among women by the discovery of the disease in the course of examinations for insurance and for industrial employment, which, until recent years, was much greater in number for men than for women. Much of the increase in deaths recorded from diabetes is fictitious, according to Dr. Bolduan, for many of the deaths represent merely the death of a diabetic individual from some other cause.

Drs. M. Kunitz and John H. Northrop, of the Rockefeller Institute Laboratories, have reported to *Science* the discovery of a powerful protein-digesting enzyme in the pancreas. This new enzyme was obtained by the action of small amounts of the well-known pancreatic enzyme, trypsin, on crystals of a protein substance. The new enzyme, chymo-trypsin, is distinct from trypsin, and except in its power to clot milk, its digestive activity is much less than that of trypsin. Since enzymes are not active in fresh pancreas juice, and this new enzyme was obtained from apparently pure protein material, its discoverers think that the protein-digesting action of this enzyme, and perhaps of other pancreatic enzymes, is a property of the protein molecule.

It appears from reports of Dr. Oscar Riddle and his associates, Ernest L. Lahr and Dr. Robert W. Bates, of the Carnegie Institution of Washington, that from the pituitary gland come two hormones which produce opposite effects on the sex glands of mature fowls. One of these hormones causes rapid and premature growth in the sex glands of young animals, and Dr. Riddle and his associates have now found that small amounts of this same hormone cause enlargement of the ovaries of mature hens.

The hormone of the pituitary gland, which stimulates milk production in mammals, has the reverse effect on the ovaries of mature fowls, causing a marked diminution in their size. These observations made by Dr. Riddle and his associates on adult doves, both male and female, reinforce other evidence previously obtained which indicates that two hormones of the anterior pituitary regulate the size and activity of the sex glands and that their normal adult size can be increased or decreased by giving the appropriate hormone.

Dr. Reuben L. Kahn, of the University of Michigan, has stated that if an animal is given immunity to disease germs, its skin and other tissues also acquire properties as well as the blood. At the Boston meeting of the American Association for the Advancement of Science, Dr. Kahn reported a method of measuring the degree of immunity acquired by different tissues of the body. He pointed out that if it were possible in this way to learn the extent of immunity of all the tissues of an animal, medical scientists will be able to fight germ diseases more successfully.

MEDICAL ECONOMICS

Doctors and the Depression.—The economic stringency of the past few years has precipitated many changes and one of these has been the changed attitude of the medical profession toward public health in its broadest aspects. Previously physicians have been content to give close attention to their own practice without giving much thought to public medical service. Ascribe, if you will, to selfish motives there is almost certain brighter prospects not only for the physician's welfare but also for public health service in general.

Physicians have been shaken out of a sort of a lethargy. They have observed the rapid development of hospital service and of public health services which have been developed to meet real needs which the public demanded, observed it with some grumbling but without any concerted effort to become public health leaders. Many measures now carried out are the result of official health laws and regulations and private organizations. Persons are getting to be very much health-minded and it is no wonder that the laity have taken the initiative to get some things done which should have been done some time ago. If the American Medical Association, state medical societies and medical schools had foreseen or appreciated the importance of public health and had done some constructive work the whole public health program would have been far in advance of what it is today. They did not, and physicians have grudgingly followed the lead of a few distinguished physicians who have devoted their lives to fathering sane public health measures, in the face of opposition not only from physicians but also the inertia of the public. In a way it has been a thankless job, but at least these pioneers have seen an awakening of the public to the need of better medical service and an appreciation on the part of the physicians that it is needed and is inevitable.

Perhaps it is not too late for the medical societies to take or regain the leadership in supplying a better curative and preventive medical service. At any rate, they are fully aroused that something must be done. They are seeing the specter of socialized medicine, and some there are who are more or less resigned to something of the sort.

The progress which has been made in better care of the sick and injured has been brought about by the initiative of a free profession unstifled by bureaucratic rules and regulations. The progress in this country in the quality of individual treatment both medical and surgical is something of which the profession may be proud. Why can't that same driving force be harnessed to bring about better medical service to everybody alike whether rich or poor, curative or preventive?

On the shoulders of the physician is rightly placed the burden of caring for sick persons and the prevention of disease, whether it be done gratuitously or for adequate fees. If he does not accept this burden and adjust it not only for his own welfare but also for the welfare of the whole country then he is shirking his duty, and the high esteem which he now enjoys will be dimmed.

The whole problem is complicated. It will require a great deal of study. Certain things should be accomplished. Persons must be taught that they should help to carry the financial burden individually as far as possible. Some of them are in no economic condition to bear their share and should be assisted. It should be worked out with patience by medical societies, hospitals, and public health authorities in friendly coöperation.—*Editorial, Rhode Island Medical Journal*, August, 1934.

The 1934 Massachusetts State Legislature.—In an editorial in the *New England Journal of Medicine*, July 5, 1934, entitled, "What of the 1934 Legislature," the statement is made that the medical profession pays little attention to the purely political aspects of the accomplishments or omissions of the General Court, and physicians as a class are largely indifferent to much of the routine of legislation. They do show an attitude of definite interest in regard to the lawmakers toward public health. Some of the bills introduced were a vaccination bill; a bill to do away with the important provisions of the present law, and that of the Board of Registration by a bill designed to prevent the registration of diplomas of the National Board; a bill designed to relieve hospitals and doctors of the burden of caring for nonpaying victims of automobile accidents, and for the direct payment to doctors of charges for treating industrial cases. All of these bills were defeated.

The policy of the State Society Committee on Legislation is to continue efforts for improving vaccination bills and advancing the standards of medical education.

It seems in Massachusetts that so far as the medical profession is concerned in legislation, there has developed an understanding of the lack of sympathy on the part of a large proportion of the members of the General Court with the purposes of the profession. It is probable that this attitude is due to the lack of appreciation of the ambitions of physicians to provide better service for the people, rather than because of unreasoning opposition to organized medicine. The remedy is obvious and the responsibility rests with doctors individually and collectively.

The editorial concludes with the following comment which is applicable to all State legislatures: If this body is not representative of the average intelligence and loyalty to the interests of the Commonwealth, the people are to blame in the first instance in the selection of their representatives, and, secondly, in keeping too much aloof from those elected to act for them at the State House.

The Bulletin Board.—More and More for Less and Less—A circular letter from the U. S. Civil Service Commission to Alabama doctors, says, in part:

"Your name is on our list of physicians for examination of applicants for Civil Service. Your fee is \$5.

"Many doctors, in fact most of them, have agreed to accept \$2.—I am wondering if you will reduce your fee accordingly?"

A copy of the certificate of examination shows an exhaustive physical examination is required, including eyes for distance, color vision, complete nervous system, tests for hearing, urinalysis, and so on.

"Most of these applicants," pleads Uncle Sam (not literally), "earn starvation wages."

Who pays them? Uncle Sam, who asks the doctor to be the goat.—*The Journal of the Medical Association of the State of Alabama*, March, 1934.

The Physician and the Iowa Sales Tax.—Apparently the provisions of the Iowa State Sales Tax are not entirely clear to all physicians and inasmuch as this act definitely defines "sales," it appears desirable to present in these columns a review of this law as it affects physicians.

The State Board of Assessment and Review rules that all returns must be made for the entire gross receipts of a business. No returns will be acceptable if they are made only upon cash receipts. They must include the receipts from all sources—cash, credit, and things other than cash taken in as consideration.

In the event a merchant sells numerous articles to

one purchaser a tax may be collected upon the total purchase price of the articles sold. In no event may there be a tax collected upon each individual article. Physicians and surgeons primarily render professional services. They are users or consumers of such tangible personal property as medicine, drugs, dressings, bandages and the like, and buy them incidentally in the performance of professional services, irrespective of whether or not such items are billed separately to the patient. The person selling such articles to a physician or surgeon is making a sale at retail, and must pay a retail sales tax as to his gross receipts from said sales.

In some instances physicians prescribe and compound their own remedies, which they sell separately and apart from the rendering of service. In these instances they must pay a tax with respect to their receipts from such sales. Physicians and surgeons are likewise taxable as to receipts from sales of any other items of tangible property, such as proprietary medicines when sold separately and apart from the rendering of services.

It is apparent, then, that physicians will not be required to pay a sales tax on moneys received for the sale of professional services, but should pay a retail sales tax where moneys or other tangible property are collected for medicines or supplies incident to or independent of the professional service rendered.—*Journal of Iowa State Medical Society*, July, 1934.

Weird Medical Philanthropy.—At a public hearing in Albany, N. Y., on a bill affecting dispensaries, the chairman of the legislative committee asked, "If doctors give these services without remuneration, why do they do it?" Well might he have pursued the subject further. Why do doctors treat the indigent for nothing? Why do they work in hospitals, especially municipal hospitals, without salaries? Why do they extend free professional services, diagnostic, therapeutic and advisory, to departments of governments? Why do they seek to have their names placed on the roll of consultants in hospitals situated near and far, where no service is ever given by them or even asked?

Why should service, the ability to render which has been obtained at such great cost, be cheapened and held in poor esteem by its free distribution to persons or organizations not indigent?

The intimate relationship of the doctor with distress, his real acquaintance with the sufferings of the poor, his knowledge of the injustice in the social world causing dire poverty, his keen and grateful appreciation of the inheritance he has received in science, his possession of a heart sensitive to things which fairly drove him into medicine anxious to relieve or mitigate, make him willing to allow ever so many to impose on him rather than that one really deserving, suffering human being be denied and neglected. In the outpatient departments the doctor feels he is or should be rendering charitable service to the indigent. Assisted by the equipment there afforded and the grouping of cases he, in turn, may acquire experience, facility, and technical skill in the use of instruments of precision. Acquaintance may be made which may lead to advancement in opportunities for work or in hospital grade. Do the physicians attending dispensaries attain the ends they seek? The free service of nearly 5000 doctors in these clinics of Greater New York would incline one to that view. Do those attending doctors really believe it themselves? If so, why do they protest and expose the abuses therein? Does the work become mostly routine? Is there not a hurry which fosters habits of superficial work? Is the teaching function fully developed and in operation? In this day of courtesy staffs and private institutions are

the positions on the hospital staff so coveted? Has not the dispensary fostered the overgrowth of specialism with all its accompanying misfortunes? If private work is to continue, general practice must come into its own place of the greatest importance. It must have a wider knowledge of the fundamentals of many specialties, and in no way or place can this knowledge be better secured than in a rotating service in a well organized outpatient department. The custom in many clinic departments today of giving positions, even the lowest, only to men who have promised to make a specialty of that subject alone should be strongly reprobated. A rotating service, which has for a purpose the better fitting of men for general practice, would permit doctors to acquire in a comparatively short time that diagnostic and technical skill which would enable them to treat properly many of the ailments of special organs and systems, and to separate from their own work conditions beyond their capability and which are properly the work of real specialists. It would make available to the patient at his doctor's office at a proper cost better diagnosis and care than he can now obtain. The real specialist, relieved of minor work, would be able to devote his skill to work more befitting his ability and to allot more time to intensive study and progress. Is the philanthropic work of the doctor rightly bestowed either in the hospital or dispensary? Are the people able to pay such large fees to the clinic really indigent? If nearly three million dollars can be collected in the worst year of the depression from patients attending the nonmunicipal dispensaries of the city, are doctors acting in strict justice who attend without remuneration? Are doctors who attend the municipal hospitals justified in giving free service to the patients there? The patients are citizens and members of the richest community in the world, a community which has no more right to the free services of the medical profession than it has to the services of any other profession. Nor is the injustice on the part of the city in any way lessened when one learns that but 48 per cent of these patients are really indigent.

Just what is the purpose of the physicians seeking places on the consulting staff of the hospital? One may read after the names of many in directories and in other published lists as many as 8 or more hospitals in which they hold positions as consultants! How much work do they actually perform? How much of the work is for the nonpaying ward patients? It is time that doctors realized that every service that is unjustly rendered gratuitously is valued at its cost to the patient. It is true that the really poor have been the most grateful among patients; nevertheless, in the minds of civil authorities, of philanthropists, of industrial corporations, of the general public and of the aggregations of great wealth this type of medical service is held in low repute and injustice is done to every member of the profession. It would be an interesting report from our medical societies that would show the amount of free work voluntarily done by the members of the profession for which payment should have been made. Doctors, themselves connected with dispensaries, hospitals, educational and philanthropic institutions, should take stock, study the value of the work itself, know if they are receiving adequate recompense in any way for their time and services, and know how long these services should be continued.—*Department of Economics, Medical Times*, July 4, 1934.

Additional Articles on Medical Economics

Lehigh County—p. 141.

Philadelphia County—p. 145.

PHYSICAL THERAPY

The Posture Problem Up to Date. May Good-all Raddow.—Good posture is an active process, both physical and mental, and the result of a counterplay of many reflexes, and governed by many cross pulls and leverage power. Without this active process the body is liable to more or less vertical collapse.

Exercises for direct effect upon the spinal supports are the first necessity until good posture becomes a habit.

The old order of "hips and shoulders forced backward to make a nice curve in the middle of the back" is obsolete and must be run to ground!

The approved methods work for the development and control of intrinsic versus surface muscles. Localized control is the first aim, strength will follow. The first effect of stiffness and rigidity will give way to ease and grace as the muscles become strong and well toned. The student is then ready to carry these fundamentals into sports, skills, and esthetic work of every kind and are guaranteed to lead to proficiency.

The usual weak centers of the body, namely, the lower back, neck, and midspine regions are weak because they bear the stress and strain in the control of the whole body. These points, then, should receive first attention to make them the strongest points instead of the weakest.

Arm movements should be independent of shoulder-blade control.

To gain industrial efficiency there must be an adjustment of the machine, coördination of the various factors to produce the manufacture and expenditure of energy with the minimum of output; so in the body, the muscles which are the storehouse of energy, should be kept in condition which will best give the "carry-over" from class to life habits, a condition deplorably lacking in most systems in current use.

The generality of weak-spined humanity is sadly out of plumb and requires revolutionary tactics to rescue conditions of more or less disability. The fundamental keys to central control of the body which have been outlined give a feeling of conscious power and strength which leads to encouraging results.—(Abst. author's monograph, 1933.)—*Archives of Physical Therapy*, July, 1934.

The Special Committee on Education of the Council on Physical Therapy.—The Council on Physical Therapy of the American Medical Association has created a special subcommittee on education. The purpose of this special group is to act as liaison to the Council in its efforts to create wider interest in physical therapy practice throughout the United States. The members selected for this work have been chosen not only because they are so geographically situated as to carry the Council's messages to a wide radius of medical centers, but also because they form an intelligent group of physicians practicing and teaching physical therapy. Undoubtedly this is perhaps the nucleus for a more ambitious plan wherein additional men will be drafted to carry this desirable propaganda into every State and county in the Union. There are splendid individuals obtainable for this purpose and there is assurance that such selection will be made as the occasion will warrant. The names of the members forming this present group are: Disraeli Kobak, Chicago; A. J. Kotkis, St. Louis; Richard Kovacs, New York; Frank H. Krusen, Philadelphia; and F. P. Lowry, Newton, Mass.

Dr. Krusen, chairman of this body, invites correspondence with any medical society wishing to present special discussion or symposium on physical therapy topics.—*Archives of Physical Therapy*, August, 1934.

Histamine in Rheumatism. F. Severn Mackenna. *The Lancet*, 1:1226 (June 9), 1934.—Histamine has a definite place in the treatment of fibrositis and neuritis, and in all chronic rheumatic affections associated with pain and limitation of movement. With histamine it is possible completely to cure fibrositis and neuritis, and almost invariably to decrease or remove joint pains in other suitable cases. The process of ionization with histamine requires unremitting attention during the whole of the sitting and, even more important, the tolerance of a given patient both as to time and milliamperage varies greatly from day to day.

With the treatment the patient experiences an immediate relief from pain, either complete or partial, and can demonstrate a greater range of movement in which previously there was restriction. This lessening of pain is always present and may last a few hours, a few days, or permanently. In addition there is a feeling of local warmth and general well being. The undesirable results which must be carefully watched for include headache or a feeling of fullness in the head, tachycardia, a feeling of constriction in the chest with consequent breathlessness, burning, and faintness, any one of which is an indication for the immediate cessation of the sitting. Treatment may be given daily.—*Archives of Physical Therapy*, August, 1934.

MEDICOLEGAL

Exhuming of Body Without Permission.—Mrs. Alice Neely, widow of the late Dr. Edward C. Neely, Harrisburg, brought suit against the Provident Life and Accident Insurance Company for exhuming her husband's body without her permission in order to make a necropsy. The Dauphin County court gave the widow an award of \$500 damages against the insurance company.

New Jersey Doctors Can Get Liens.—On Oct. 15, 1934, County Judges Joseph A. Corio and Robert L. Warke, Jr., passed favorably upon the schedule of fees submitted by Dr. David B. Allman in behalf of the Atlantic County Medical Society of which he is president. The list of fees was ordered filed for official record. As a result of this action of the court, physicians caring for accident victims now have a legal lien upon any damages collected, on an equal footing with the hospitals. The scale ranges from \$3 for an office or home visit up to \$350 for operations. For treating a fractured skull the charge is \$100 without or \$200 with an operation. The cost of operations includes 4 to 8 weeks postoperative treatment. This act of the court was made possible by a recent New Jersey act authorizing the liens.

Employer's Doctor Within Compensation Act Not Suable.—The West Virginia Supreme Court of Appeals holds, *Hinkelman v. Wheeling Steel Corporation*, 171 S. E. 538, that if a doctor employed by a subscriber to the state workmen's compensation fund to render medical and surgical aid and treatment to its employees is so unskillful and negligent in his treatment of an employee, injured in the course of and resulting from his employment, that the injury is aggravated thereby, such action on the part of the doctor comes within the Compensation Act and an action is

not maintainable against the doctor.—*Medical Record*, Aug. 15, 1934.

Reciprocity Licenses.—The California District Court of Appeals holds, *Rinaldo v. Board of Medical Examiners*, 27 P. (2d.) 671, that the board had jurisdiction to examine the validity of a physician's license from another state where the complaint on which the board was proceeding against the physician alleged that the reciprocity certificates were valid and existing and that the facts set forth therein were true; whereas, to his knowledge none of them was true.

The same court said, in *Herzig v. Board*, 26 P. (2d.) 513, that a broad discretion is vested in the board in the matter of granting reciprocity certificates, particularly where they are to be accepted without direct examination of the applicant. In this case the board refused to grant a reciprocity license to a physician licensed to practice in Nevada, with which state California has a reciprocity contract, and a graduate of two United States medical schools not recognized by the California board and of a foreign medical school approved by the board, but which the applicant had attended for only one year, and the board was not satisfied with the basis upon which such advanced standing had been obtained. It was held the board's refusal to grant the license was not an abuse of its discretion.

The New Jersey Supreme Court, in *Ruffa v. Board of Medical Examiners*, 163 Att. 15, held that the board did not abuse its discretion in refusing a license to practice medicine and surgery to an applicant licensed by the Illinois board but who had received his professional education and training at an institution not approved by the New Jersey board, although the standard of requirements for license in Illinois is substantially equal to that of New Jersey.—*Medical Record*, July 4, 1934.

HOSPITAL ACTIVITIES

State Approves Hospital's Plan.—The new organization plan of the Frederick Douglas Memorial Hospital, Philadelphia, has been approved by the State Department of Welfare. It includes a coordinating committee of 5 members appointed by the board and a medical advisory committee of 5 physicians.

Hospital Deficits.—Forty-nine New York hospitals spend \$2,000,000 annually for laboratory and roentgen-ray departments, and incur an annual deficit of \$500,000, it was revealed Oct. 6. The Hospital Information and Service Bureau of the United Hospital Fund stated in revealing these facts that the cost of these 2 departments represents 8 per cent of the hospitals' total operating expenditures.

Hospitals Holding Highest Scores in Necropsy Performance.—Among the 685 hospitals approved for internship by the Council on Medical Education and Hospitals, only 37 fell below the required 15 per cent of necropsies last fall; 313 reached 15 to 30 per cent; 259 did 30 to 50 per cent; and 85 performed necropsies in more than 50 per cent of the deaths. Two of the 20 hospitals ranking highest are: the Mount Sinai Hospital, Philadelphia, 73.2 per cent; and Reading Hospital, Reading, 69.5 per cent. (The highest rank is 86.8 per cent.)

Need of Group Hospitalization Plan of Insurance.—In the *New England Journal of Medicine* for July 5, 1934, there is an editorial on the "One Hundred and Twentieth Annual Report of the Massachusetts General Hospital." The report is of interest in several

respects; one of which, it covers the main events of the 26 years during which the retiring director, Dr. Frederick A. Washburn, has been the chief executive officer. The depression has had its effects upon the hospital finances, but service to patients has not been curtailed. Average daily visits to the outpatient department have increased; pay days and part pay days have decreased; while free days have increased about 10 per cent. Dr. Washburn believes that this decrease in income from patients could best be met by the establishment of a group hospitalization plan of insurance.

INDUSTRIAL MEDICINE

New Regulations for the Dusty Industries.—New and more stringent regulations have been made by the government for the dusty industries, which include the refractories, sandstone, pottery and asbestos. Those seeking employment in these industries must be examined by a member of the medical board. Their employment will not be allowed if their physique does not satisfy the following requirements: 1. The chest must be at least of average development and the respiratory passage free from obstruction. 2. There must be no sign of disease of the lungs or heart. 3. There must be no tuberculosis in any region.—*J. A. M. A.*, Oct. 20, 1934.

PUBLIC HEALTH

Accidental Eye Injuries.—According to Lewis H. Carris, managing director of the National Society for the Prevention of Blindness, at least 1000 children suffer accidental eye injuries in the United States each year; of these, about 75 result in total blindness. To quote from a statement made by Mr. Carris in pleading for a "safe and sane" celebration of the Fourth of July: "As an important measure toward the protection of children's eyesight, the National Society for the Prevention of Blindness advocates complete prohibition of the manufacture and sale of dangerous toys, such as firecrackers, torpedoes, air rifles, cap pistols, slingshots, bows and arrows, darts, toy guns, and other devices for projecting missiles.

"Instead of carelessly permitting little boys and girls to play with dynamite, fire and bullets—resulting in deaths, blindness, and a great variety of minor injuries—communities should provide spectacular displays of fireworks under expert supervision, to celebrate the anniversary of our independence. Lives, limbs, and eyes are saved when cities forbid the sale of fireworks to individuals and substitute, in each neighborhood, pyrotechnic exhibitions under the direction of competent men."

Statisticians of the Society disclose that more eye accidents occur on or about July 4 than occur during 100 days at any other time in the year. It is claimed that fireworks cause 23 per cent of all eye accidents to children.

Dr. Samuel Horton Brown, chairman of the Committee on Conservation of Vision, The Medical Society of the State of Pennsylvania, states that nearly all the fireworks' accidents are preventable if parents supervise the various special toys which children use at this season. To quote Dr. Brown: "It is barbaric to exact human sacrifices because of misguided enthusiasm in celebrating Independence Day."

Reduction of Maternal Death Rate.—In an effort to bring about conditions which will result in a

reduction of maternal deaths, Dr. John L. Rice, health commissioner of New York City, has appointed an advisory obstetric council, made up of 18 leading gynecologists and obstetricians, who will make a complete study and survey of all maternity hospitals in the city. They will study institutional obstetrics, including a survey of facilities for maternity cases, the organization and control of hospital staffs, proprietary hospitals, nursing homes, etc. They will also make a thorough inquiry into the number of midwives in the city, their present status, licensing, and so on, and study the best methods for instructing the public in adequate maternity care.—*Medical Record*, July 4, 1934.

Best Health Program.—At the annual convention of the American Public Health Association held at Pasadena, Calif., in September, a gold plaque was awarded to Baltimore, Md., for having the best health program of the larger cities of the Nation. The awards were made by the United States Chamber of Commerce in conjunction with the American Public Health Association. Rochester, N. Y., Hackensack, N. J., Hartford, Conn., Schenectady, N. Y., and Palo Alto, Calif., were the recipients of other awards based on population. Among places receiving honorable mention were Newark and Maplewood, N. J., Reading and Harrisburg, Pa. The awards took into consideration both official and unofficial city health programs, including disease control, child welfare, sewage disposal, water, milk and food supplies, public health laboratory work, and nursing.

Some Eye Defects Aid School Pupils.—"The superficial eye tests which are being given in many of our public schools are inadequate and should be replaced by more thorough and more complete visual tests," according to the report made to the American Association for the Advancement of Science by L. P. Farris, principal of the Oakland (Calif.) High School.

Nearly half the public school pupils of the United States have some sort of eye defects, if the 1685 boys and girls tested in Farris' study are a typical cross section. He found 44 per cent of this number were suffering from eye troubles of varying degrees.

Two kinds of eye trouble seemed actually to improve students' work at least in reading: nearsightedness and a combination of nearsightedness and astigmatism. Cross-eyes and farsightedness are handicaps to a pupil's progress. They definitely interfere with reading. Another queer discovery was that pupils who see with only one eye, or with the equivalent of one eye, due to defects in one of the 2, make better progress in reading than those who see with 2 eyes, but do not have good coördination between them.

Air Pollution Is Health Peril.—"Excuse our dust" is no idle catch phrase in the City of Brotherly Love; a million pounds fall on each square mile in Philadelphia every year.

While other cities, including Pittsburgh, have labored long and hard to reduce air pollution, with notable results in many cases, Philadelphia has set supinely back and watched its air become fouled as never before. Unlike other cities of similar size, Philadelphia now has no agency to prevent the pollution of its air and none is yet contemplated by municipal authorities, despite sensational revelations in a report by the Air Hygiene Commission of Philadelphia following an extensive survey. The City Bureau of Boiler Inspection once had 2 "smoke inspectors," whose duty it was to check up on the big industries of the city, doing considerable prevention work. But they were laid off 2 years ago as an

"economy" measure. Startling disclosures were made in the Air Hygiene Commission's report, based upon a careful investigation in 10 widely separated sections of Philadelphia, 1 in Upper Darby (Delaware Co.), Pa., and 2 in Camden, N. J. "Dust counters" were placed upon the roofs of schools and other public buildings, and daily readings were taken by CWA workers for nearly 3 months.

Working under the direction of Henry Field Smyth, M.D., of the University of Pennsylvania's laboratory of hygiene, the investigators learned:

1. That air pollution in Philadelphia is considerably greater than in the far more congested city of London, England, and probably is greater than in most large American cities.

2. That the area of greatest pollution in Philadelphia is in the vicinity of 12th Street and Columbia Avenue, with that in the neighborhood of the University of Pennsylvania a close second.

3. That Tacony, despite its large chemical plants and dye houses, has the cleanest air of any section studied in this city, although Upper Darby was freer of pollution.

4. That air pollution is due more to the inefficient furnaces of small homes and factories than to those of the large industries.

The studies showed that the average soot fall at the 10 Philadelphia test stations was equivalent to more than 1½ tons per square mile per day, or nearly 550 tons per year. Not only is the air pollution a menace to the health and happiness of Philadelphia residents, but it also causes millions of dollars' damage a year to buildings and merchandise. The corrosive sulphur gases which are present in great quantities in the air ruin woodwork, make paint flake off more quickly from houses, and ruin metal and stone.

The studies showed that Upper Darby and both Camden stations receive more ultraviolet radiation, extremely necessary for the maintenance of health, than the average of the Philadelphia stations; that the extreme prevalence of hay-fever in Philadelphia may be due to excessive air pollution was indicated by Dr. Smyth. "One of the many causes of hay-fever," he said, "is the danger from animal hair, and that is to be found in Philadelphia air in great abundance, due to the many woolen mills and brush and other hair-products plants here. Our neglected vacant lots also contribute plenty of pollen to increase the suffering of hay-fever victims. The constant breathing of other types of dust also might tend to leave the throat in an irritated condition, increasing the susceptibility to the affliction."

Large industry has voluntarily done considerable work in the reduction of air pollution in the interest of efficiency, according to Dr. Smyth, and much of the pollution is caused by badly regulated furnaces, which permit much of the fuel to go up the chimney unburned. Oil burners make tar; coal fires, soot and ash. As it is to their interest to save on fuel bills, most large industries have the most modern of equipment, which waste a minimum of fuel and have a relatively low fuel loss. Small homes and factories have no such modern equipment, and consequently they do more than their share to make the air unfit to breathe.

The Commission hopes to make a more complete study of conditions in Philadelphia, provided the necessary funds are forthcoming, so that it can be determined absolutely what localities and what industries are to blame, at which time an educational campaign together with a live city air hygiene bureau can correct the faults.

The Air Hygiene Commission, an unofficial body sponsored by the Philadelphia College of Physicians,

Franklin Institute, the Committee of Seventy, University of Pennsylvania, and other similar bodies, is headed by Randle C. Rosenberger, M.D.; Alexander Heron Davisson, M.D., is secretary, and W. H. Fulweiler, treasurer.—*The Philadelphia (Pa.) Record*.

How Much Vision?—Pennsylvania is one of 20 states that require automobile operators to have a certain minimum amount of vision before an operators' license will be issued them. Nine states require no operator's license and in 20 others no specific visual tests are necessary before permission to drive a motor vehicle is given. Pennsylvania will not issue a license to an operator if he has less than 50 per cent of normal vision with the aid of glasses. (To possess 50 per cent of normal vision one must be able with one eye to read all the letters on the 70 line of the Standard Snellen Type Chart at a distance of 20 feet.)—*The Car*.

Morbidity in Pennsylvania in August, 1934

Locality	Disease				
	Diphtheria	Measles	Scarlet Fever	Typhoid Fever	Whooping Cough
Aliquippa	0	8	17	0	5
Allentown	2	3	0	5	44
Altoona	0	4	4	0	42
Ambridge	0	0	0	0	2
Arnold	1	0	0	0	0
Beaver Falls	0	0	0	0	0
Bellevue	0	0	0	0	1
Berwick	0	1	2	0	0
Bethlehem	0	1	1	1	7
Braddock	0	0	0	0	0
Bradford	0	2	1	0	4
Bristol	0	0	0	0	0
Butler	0	0	1	0	5
Canonsburg	0	0	2	1	0
Carbondale	0	0	0	0	0
Carlisle	0	1	0	3	0
Carnegie	0	0	0	0	0
Chambersburg	0	0	4	0	0
Charleroi	0	0	0	0	2
Chester	0	0	0	3	6
Clairton	0	0	0	0	0
Coatesville	0	0	0	0	0
Columbia	0	0	0	0	3
Connellsville	0	0	1	0	0
Conshohocken	1	0	2	1	0
Coraopolis	0	0	0	0	0
Diekson City	0	0	0	0	0
Donora	0	1	1	0	0
Dormont	0	0	0	0	0
Du Bois	0	0	0	0	0
Dunmore	0	0	0	0	0
Duquesne	0	0	2	0	0
Easton	0	0	0	0	1
Ellwood City	0	0	0	0	1
Erie	2	0	3	0	29
Farrell	1	0	0	0	0
Franklin	0	0	2	0	1
Greensburg	0	0	0	0	0
Hanover	0	0	0	0	0
Harrisburg	0	4	0	0	8
Hazleton	0	4	3	0	0
Homestead	0	0	1	0	0
Jeannette	0	0	0	1	1
Johnstown	2	3	2	1	23
Kingston	0	0	0	0	0
Lancaster	0	1	0	0	12

Locality	Disease				
	Diphtheria	Measles	Scarlet Fever	Typhoid Fever	Whooping Cough
Latrobe	0	0	1	0	0
Lebanon	0	0	0	0	8
Lewistown	0	1	0	0	0
McKees Rocks	0	0	0	0	0
McKeesport	1	1	1	0	7
Mahanoy City	0	0	0	0	0
Meadville	0	0	0	0	1
Monessen	1	1	1	0	0
Mount Carmel	0	0	0	0	0
Munhall	0	1	1	0	0
Nantioke	0	0	0	0	0
New Castle	0	0	0	0	0
New Kensington	0	2	1	2	0
Norristown	0	0	0	1	11
North Braddock	0	0	2	0	0
Oil City	0	0	0	0	42
Old Forge	0	0	0	0	0
Olyphant	0	0	1	0	0
Philadelphia	7	22	39	9	385
Phoenixville	0	0	0	0	1
Pittsburgh	19	21	44	2	82
Pittston	0	0	0	0	1
Plymouth	0	0	0	0	0
Pottstown	0	0	1	0	0
Pottsville	1	0	0	0	3
Reading	0	1	1	0	76
Seranton	1	6	3	0	20
Shamokin	0	0	0	0	0
Sharon	0	0	0	0	1
Shenandoah	0	0	0	0	0
Steelton	0	0	0	0	0
Sunbury	1	0	1	0	0
Swissvale	0	0	0	0	9
Tamaqua	0	0	2	0	0
Taylor	0	0	0	0	0
Turtle Creek	0	6	0	0	0
Uniontown	0	1	1	1	0
Vandergrift	0	0	1	0	4
Warren	0	0	0	0	1
Washington	0	1	0	1	4
Waynesboro	0	0	0	0	2
West Chester	0	0	1	0	0
Wilkes-Barre	3	0	4	1	16
Wilkinsburg	0	4	1	1	1
Williamsport	0	15	2	0	3
York	0	1	0	0	3
Townships					
Allegheny County:					
Harrison	0	0	1	2	0
Mt. Lebanon	0	0	0	0	0
Stowe	0	0	0	0	1
Delaware County:					
Haverford	0	1	0	0	10
Upper Darby	0	0	2	2	18
Luzerne County:					
Hanover	0	0	1	0	0
Plains	0	0	1	0	0
Montgomery County:					
Abington	0	0	0	0	1
Cheltenham	0	4	0	1	8
Lower Merion	0	1	1	0	2
Total Urban ..	43	123	164	39	918
Total Rural ..	53	232	190	43	527
Total State ..	96	355	354	82	1445

TUBERCULOSIS ABSTRACTS

A Review for Physicians

PREPARED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Published through the coöperation of the Pennsylvania Tuberculosis Society and The Medical Society of the State of Pennsylvania

THE coëxistence of tuberculosis and mental disease in the same patient is none too rare and presents difficult problems to the practitioner. Without conscientious and intelligent response to instructions on the part of the patient, the prognosis for the tuberculosis cannot be good. A mentally uncoöperative patient cannot be depended upon to prevent the spread of his tuberculous disease to others. What disposition had best be made of such a patient? There is also the common belief that there are certain biologic factors responsible for the coëxistence of the two diseases, based, probably, on the observation that the death rate from tuberculosis in institutions for the care of patients with mental diseases is extraordinarily high. A recent study of the coëxistence of mental disease with tuberculosis, made in a large hospital, casts light on this subject. Abstracts of the report follow.

TUBERCULOSIS AND MENTAL DISEASE

At the Longview State Hospital for Mental Diseases in Cincinnati there has been a tuberculosis death rate for the past few years of 0.7 per cent. This is more than ten times the rate for the state as a whole. Even higher rates are found in other mental hospitals. Patients with dementia precox so often die of tuberculosis that some writers consider the "schizoid type" as "constitutionally predisposed" to phthisis. Others maintain that dementia precox may be itself a peculiar manifestation of tuberculosis infection. Lowered resistance due to institutional conditions and increased exposure to massive infection have also been considered important factors.

Clinical examination of 2200 patients at the Longview Hospital led to the discovery of 68 pulmonary tuberculosis cases. Due to inadequate facilities such patients were found in more than a half dozen wards. The number of cases compares favorably with other hospitals in the state but undoubtedly it would be increased by more thorough examinations utilizing laboratory and roentgen-ray criteria more freely.

Only 10 per cent of the tuberculous patients had been admitted since the beginning of last

year as compared with more than 20 per cent of nontuberculous patients admitted during the same period. This seems to indicate that the incidence of the disease increases with the duration of confinement in the institution. The tuberculous patients averaged less than 35 years of age while the average age of all patients in the institution is more than 40 years.

Incidence of the disease was lower among the senile and syphilitic groups and higher among the patients with so-called "constitutional psychoses." Patients with tuberculosis, especially those in the male tuberculosis ward, do not appear to be underweight probably because of special nutrition efforts. Dementia precox patients showed little more tuberculosis than did those with manic-depressive psychoses, although their nutrition did not appear to be as well maintained.

Body Build

The relative width of the body pelvis gives one of the simplest and most constant indices of body build. The relative width of the bony pelvis of tuberculous patients at Longview was slightly narrower than that of the entire patient popula-

tion, but little different than that of the other patients of the same age. Dementia precox patients appeared narrower than those with manic-depressive psychoses, but when only patients in the same age group are compared the differences in body build between the various types of mental disease, as shown by this index, vanish.

It seems clear that the incidence of clinical tuberculosis in this hospital increases with the length of stay in the institution, but is not appreciably affected by body build or type of psychosis. The deduction, after eliminating all known factors, is that the tuberculous disease develops not as a result of the mental disease *per se*, or as its cause, but from the condition of confinement and exposure to infection resulting therefrom.

Incidence of Infection

The entire hospital population was tested with tuberculin. For safety and convenience in dealing with unruly patients the Pirquet technic was used throughout, scarifying through Old Tuberculin with the Pirquet chisel on the flexor surface of the left forearm and reading in 48 hours with a check reading in 5 days. A few positives missed by the Pirquet technic might have been revealed by larger doses of tuberculin given intracutaneously but not sufficient to make any significant differences in this study.

There were marked differences in the incidence of the reactions on different wards, more than a quarter of patients in admitting wards being completely negative, while on the wards containing active cases of the disease less than half that number failed to react. Less than 20 per cent of the patients on the admitting wards

showed a strongly positive reaction as compared to more than twice that number on the remaining wards and an even higher proportion on the wards in which patients with active tuberculosis were clinically recognized.

There were striking differences in reactions, according to length of time patients had been at Longview. More than a quarter of patients admitted during the past 5 years gave negative tests while of those admitted prior to that time, only one-sixth are now negative to this test. Increase in positive reaction with increase in duration of stay in the institution is marked among both men and women. Mere increase of age is not responsible for increased incidence of positive reactions because new admissions average a somewhat higher age incidence than do the surviving population of the hospital, and examination of patients of various ages shows little tendency to increase in positive reactions among the older groups.

Apparently the hazard of becoming infected with tubercle bacilli while in the mental hospital is much higher than it is in the general population.

Attempt at segregation of tuberculous patients at the institution, admittedly inadequate as it is, during the past few years has been marked by a drop in the mortality rate. Even greater success is presaged if the policy of segregation of active cases is more thoroughly carried out. The doctrine of "constitutional types" underlying predisposition to mental diseases and to tuberculosis is not supported by this study.

Tuberculosis and Mental Disease, Emil Bogen, Esther Bogen Tietz, and Major Frank Grace, Am. Rev. Tuberc., September, 1934.

CHRISTMAS SEAL HONORS TRUDEAU

"Tuberculosis Abstracts" is one of the publications made possible by Christmas Seals. The National Tuberculosis Association publishes also *The American Review of Tuberculosis* and the *Journal of the Outdoor Life*, as well as dozens of pamphlets and booklets for distribution to the public.

The money raised locally is expended by the association that raises it for a program of tuberculosis prevention planned by local persons to fit local conditions. Among projects conducted are tuberculin testing of children, roentgen raying of tuberculosis suspects, nursing service, clinics, preventoria, summer camps, educational efforts, rehabilitation, and medical and social research. The National office establishes the broad policies of the work and seeks to give it leadership. Five

per cent of the funds raised by the Seal Sale supports the National office.

This year's Christmas Seal design represents Trudeau's original one-room cottage, established in 1885. Trudeau, the young doctor, believing he was doomed to die of tuberculosis, went to Saranac Lake to spend his last days amid the rugged mountains he loved. There he discovered the value of rest and gradually worked out the treatment still effectively used today and there, also, he launched the sanatorium movement in this country.

Trudeau, still the general practitioner, died at the ripe age of 67. The 1934 Christmas Seal is a tribute, not only to him, but to all physicians who continue to carry on the best traditions of the profession.



THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA

Minutes and Proceedings of the Eighty-fourth Annual Session, Wilkes-Barre, Oct. 1 to 4, 1934

MINUTES OF THE HOUSE OF DELEGATES

Monday Afternoon, Oct. 1, 1934

The first meeting of the House of Delegates was called to order in the Irem Temple, Wilkes-Barre, Pa., on Monday, Oct. 1, 1934, at 3:15 p. m., by the president, Donald Guthrie, Sayre.

DR. GUTHRIE: Gentlemen, the meeting will please come to order. I will ask the Chairman of the Committee on Credentials if we have a quorum present.

J. NEWTON, HUNSBERGER, Norristown: We have 60 registered at this time, Mr. President, more than constituting a quorum.

THE PRESIDENT: As we have a quorum we are ready for the transaction of business and I will now ask for the presentation, correction, and adoption of the Minutes of the Eighty-third Annual Session.

FREDERICK M. JACOB, Pittsburgh: I move that the minutes as published in the November, 1933, issue of the PENNSYLVANIA MEDICAL JOURNAL be adopted.

The motion was seconded by Leonard G. Redding, Scranton, and unanimously carried.

THE PRESIDENT: It is with great pleasure that I welcome the members of the House of Delegates to this the Eighty-fourth Annual Session of the Society. May your deliberations reflect honor and credit to the Society and to our profession.

In my presidential address I stressed the importance of postgraduate extension teaching and hazarded the hope that during my short term of office a practical plan might be formulated which would bring this important work easily within the reach of the general practitioners who live away from the teaching centers. I am happy to report that through the wonderful co-operation of the Medical Schools of Philadelphia and their faculties such a plan has been formulated and has been found to be practical and workable. It has been carried out successfully in several localities. We have been able to give classes of 6 seminars with the accompanying luncheon or dinner for the sum of \$10 for each subscribing member, and in but one instance has it been necessary for me to draw upon a fund allotted to me by the Board of Trustees for this teaching work, and this deficit amounted to but \$6.36. The Schuylkill County Medical Society signed 41 members for its course, Lycoming County 50 members, and the Carbondale branch of the Lackawanna County Society

23 members. A class of 67, at Sayre, composed of members of Bradford, Sullivan, Tioga, Wyoming, and Susquehanna County Societies, has completed this work and there are several other county societies that wish to form classes for fall and winter postgraduate courses.

Naturally, the formulation of this plan entailed a tremendous amount of work carried on entirely by correspondence, and we were much delayed at first by misunderstandings and uncertainties, but the organization is complete and this work can be continued with but little effort by the incoming administration if it should be its wish to continue it. I trust very much that this shall be done. I appreciate deeply the unselfish work of the several teachers, all members of this Society, traveling far, but whose enthusiastic efforts have made the plan so successful.

The indispensable service of the Emergency Child Health Committee organized during Dr. Falkowsky's administration has progressed most satisfactorily under Dr. Samuel McC. Hamill's able leadership, and has received almost state-wide adoption. The importance of this great work has been fully demonstrated—as a matter of fact, Pennsylvania's progress has attracted national interest and many of the Committee's early critics are now its enthusiastic supporters. The work should continue to receive the active support of our State Society's entire membership.

The Committee on Appendicitis Mortality has functioned extremely well under Dr. John O. Bower's able leadership. The subject of appendicitis mortality was presented before each annual councilor district meeting by some member of the Committee, and several short articles written by members have appeared in the county society bulletins. The subject of the reduction of appendicitis mortality is so extremely important and will require such consistent attention that it is my suggestion that this Committee, by action of the House of Delegates, be formed into a Commission which shall be permanent in character, similar to our Cancer Commission.

Our State Society and the medical profession at large have suffered a grievous and an irreparable loss in the death of the distinguished Chairman of the Cancer Commission, Dr. J. M. Wainwright, of Scranton. His great work in his profession and in cancer education are monuments to his splendid genius and unrelenting activity. Two very successful and well attended Regional Cancer Meetings were held during the summer, one at Altoona and one at Sayre.

A Commission on Workmen's Compensation Laws has been appointed which will render a report of its

labors at this meeting. Knowing full well the President-elect's interest and experience in these matters, I am sure that very important and constructive work will be accomplished in this field during the next year.

One of our most important labors during the past year has been, of course, the organization of the State Emergency Medical Relief work. I doubt if many of the members of this House of Delegates appreciate the tremendous task this has placed upon the members of our State Advisory Committee, the members of the Component County Society Advisory Committees, and the officers of our State Society. I doubt, too, whether any new plan presented for adoption ever brought forth a worse storm of criticism and abuse in the beginning from a certain very few of our own membership and from many more nonmembers but participating physicians who misunderstood the plan and the spirit of its endeavor. That this farseeing plan was not wrecked in the beginning is a remarkable tribute to our organizational control and the devotion to principles of our individual members.

Like most emergency ventures the amounts of money necessary to carry on this program have been insufficient to provide compensation for minimum adequate medical service. I believe it becomes the duty of this body to express itself clearly as being sympathetic with the irritations this condition of affairs has produced in many localities. Would it not be wise for this House of Delegates to express itself to those responsible for the Emergency Relief Program that this condition exists and that an equitable distribution of available funds should be made until sufficient moneys can be obtained? In the last analysis, ladies and gentlemen, we have placed a matter of principle involved first, but it should be remembered that the reductions accepted by participating physicians must not be regarded as a standard schedule of fees if this program is to continue for an extended period. It is therefore necessary that the amount of reductions accepted by physicians should be discreetly publicized, and that our participations and contributions to the temporarily unemployed be understood in the light of a contribution. We must also never forget that many of our younger members have the larger part of their practice among those on relief, and that their compensation from this source must not be so reduced as to be inadequate. Whatever things are necessary to remedy the existing conditions should be done through the organization already in operation, because I am fearful that a New Deal will result in further misunderstanding and a hazardous public position.

Just a word upon the subject of Medical Economics. It is well for each one of us to remember that the public has no conscious interest in the financial success or failure of any individual practicing physician, and that we, in our organized approach to this subject, must attempt to impress the public that the best medical service will continue to be available only through the practicing neighborhood physicians, unhampered by bureaucratic or governmental control; and only when these same physicians are able to live satisfactorily upon an income obtained from supplying a very high type of medical service.

Let us oppose State Medicine and Compulsory Health Insurance to the very end and resist the efforts of the Foundations through their lay workers to foist these impractical yet destructively expensive schemes upon the public. The socialization of medicine in the United States will spell ruin to scientific advancement and will eventually supply the lowest type of medical care.

This summer it was my good fortune to visit Germany, Czecho-Slovakia, Austria and Hungary, countries I have previously visited several times. During this latter visit I talked freely upon this subject with the professors of medicine and surgery, the assistant professors, the assistants in the clinics and with the general practitioners, and I can report to you, positively and without the slightest hesitation, that the plan is most unsatisfactory, its type of medical care and service to the people most mediocre, the lot of the physicians a sordid one; that the spirit of the profession is absolutely broken in these countries and this state of affairs is the same whether the plan has been in effect few or many years. One distinguished surgeon of international reputation, who is a leader in national thought and action, as well as a leader in his profession, said to me without hesitation that medical affairs are no different in his country than medical affairs in Russia, and he predicted that medical service to the people and medical advancement would continue to sink into the bog of indifference, despair, and mediocrity.

In my presidential address one year ago I made the following statement: "Never before has there been more need for a wise and dignified leadership in our profession, a leadership assumed by the individual doctor in his local community in which invariably he holds a position of respect and is an important factor in moulding public thought; never before has the county society under the proper leadership served as a better influence for good through its Public Relations Committee. Let me plead for a solidarity of medical thought and action, for in spite of the fact that every county society may have its own different problems and difficulties and may be forced to think and act differently on the same problems, the need for a unified and a united profession was never so important as it is today. If medical organization will assume this type of leadership we shall not be considered by the public as a bureaucracy seeking only for those things of selfish interest. Far better should we be evolutionists rather than revolutionists, for revolution will simply antagonize public opinion and make us appear in a wrong and unfortunate light."

As I retire as your President let me plead with you for the preservation of the traditional spirit of the medical profession, and for an understanding loyalty to each other and to the State Medical Society. Understanding has two phases: Understanding of facts and their relationships, and understanding of other involved people. If we are painstaking in searching for facts, accurate in noting them, strictly fair in the interpretation and balancing of them, our conclusions will be just and probably right. If we discuss them among ourselves before addressing the public, we reach the second stage of understanding. When understanding is complete we can then choose between loyalty and disloyalty. Loyalty is sure to win every time.

Fellow members, in closing, I wish to thank the membership of the Component County Societies and their officers for the support given me during the past year, and to thank the members of the State Advisory Committee for their unselfish work. Particularly would I mention the labors of the Chairman, Dr. George L. Laverty. I appreciate the support given me by the Board of Trustees and the other officers, particularly that of our beloved secretary, Dr. Donaldson, and for the support rendered by the President-elect, Dr. Behrend. I am deeply conscious of this loyalty and support which has made my year as your President a busy one, to be sure, but a very thrilling one,

and one which I shall never forget. It has been a great privilege and a great honor to have served you.

SETH A. BRUMM, Philadelphia: I move that this address of the President be referred to the Reference Committee on Reports of Officers and Standing Committees.

The motion was seconded and unanimously carried.

THE PRESIDENT: The President-elect, Dr. Behrend, has appointed the following reference committees to serve this year in the House of Delegates:

Committees of the 1934 House of Delegates

COMMITTEE ON CREDENTIALS

J. Newton Hunsberger, Norristown, *Chairman*.
Harry J. Bell, Dawson.
John A. Campbell, Williamsport.

REFERENCE COMMITTEE ON REPORTS OF OFFICERS AND STANDING COMMITTEES

Francis F. Borzell, Philadelphia, *Chairman*.
Frank S. Boyer, Allentown.
John A. Farrell, West Chester.

REFERENCE COMMITTEE ON SCIENTIFIC BUSINESS

Charles F. Nassau, Philadelphia, *Chairman*.
Leonard G. Redding, Scranton.
Frank N. Emmert, Chambersburg.

REFERENCE COMMITTEE ON NEW BUSINESS

Cloy G. Brumbaugh, Huntingdon, *Chairman*.
John W. Shirer, Pittsburgh.
J. Fred Wagner, Bristol.

COMMITTEE ON PLACE OF MEETING

Albert R. Feinberg, Wilkes-Barre, *Chairman*.
George W. Reese, Shamokin.
T. Ruth Weaver, Philadelphia.

The House is now ready for the report of the Secretary.

SECRETARY DONALDSON: I have no additional report besides that published in the Handbook, but I do wish to make an explanation for the delay in the appearance of the September number of the JOURNAL. This is considered perhaps the most important issue of the year because it contains the reports of the officers and committees of the past twelve months. You are all aware that no work has been more important than that of the Committee on Medical Economics. That Committee was not reorganized until May 29, and they have accomplished a tremendous amount of work. They held their last meeting on August 7, and they sent to my office a report that contained approximately 30,000 words, under many headings. It is the duty of the Secretary to prepare these reports for publication. I worked as hard as I could, night and day, and after sending the report to the JOURNAL it was discovered that a Minority Report submitted had not been properly recognized. That required several days for printing and proof reading. The JOURNAL was not received anywhere in the state until September 26, whereas, ordinarily, it is received ten days before the meeting. I especially regret it because it contained details of the arrangements for the meeting here. I wish to take the full responsibility for this. It was not the fault of the Luzerne County committees, for all of their copy was sent in early, but I felt it my duty to publish a full report of the Committee on Medical Economics, and certainly a Minority Report deserves fair treatment.

GEORGE C. YEAGER, Philadelphia: Gentlemen, as Chairman of the Publication Committee, I do not wish you for one minute to think the delay was the fault of Dr. Donaldson. The fault lies with the recognition of the Minority Report. That held up the JOURNAL at least 5 days and that is where the trouble lay.

MAX H. WEINBERG, Pittsburgh: I am the guilty one in regard to the Minority Report. I may say that I also did a lot of work on other portions of our Committee's report, but so far as I know my handling of my Minority Report did not greatly delay the JOURNAL.

THE PRESIDENT: We are now ready for the report of the Treasurer.

JOHN B. LOWMAN, Johnstown: I have nothing to add to the report as published in the JOURNAL.

THE PRESIDENT: We next come to the report of the Board of Trustees and Councilors. Do you wish to add anything to your published report, Dr. Buyers?

EDGAR S. BUYERS, Norristown: I have nothing to add to my report, but I wish to call your attention in the Handbook to the bottom of page 144, where it states, "President Guthrie addressed the Trustees on proposed changes in Pennsylvania's Workmen's Compensation Law." I wish to say that the report of the Committee on Workmen's Compensation Laws, which was presented at our Trustees' meeting this morning was very comprehensive, and by action of the Board was referred to the House of Delegates. I hope you will give consideration as you will later hear the report in full.

THE PRESIDENT: We are now ready for the reports of individual Councilors.

GEORGE C. YEAGER, Philadelphia: I wish to call your attention to the first paragraph in my report as Councilor for the First District regarding the death of Dr. George A. Knowles. I wish to say that our County Society is establishing a fund for a memorial to the late Dr. Knowles. We wish to have a small memorial in our meeting rooms and the balance of the fund is to be used for medical relief. If any of you gentlemen wish to contribute anything in memory of this fellow-worker of many years we shall be very glad to hear from you.

THE PRESIDENT: Have any other Councilors, or the chairmen of any other standing committees, any supplementary reports at this time?

J. NORMAN HENRY, Philadelphia: I am prepared to make the additional report for the Committee on Society Comity and Policy on Wednesday morning.

ROBERT G. BARCKLEY, Milford: I will report for the Committee on Necrology tomorrow morning.

CALVIN M. SMYTH, JR., Philadelphia: I wish to present the following additional report of the Committee on Workmen's Compensation Laws.

SUPPLEMENTAL REPORT OF THE COMMITTEE ON WORKMEN'S COMPENSATION LAWS

The Committee appointed by President Guthrie in May of this year has held two meetings at Harrisburg, on June 22 and August 8, respectively. At the first, or organization meeting, it was decided to limit the work of the Committee to an attempt to correct certain specific injustices in the present Workmen's Compensation Laws, particularly in their medical aspects. The specific things requiring correction are as follows:

1. The thirty-day period in which the employer is compelled to furnish hospital and medical care. This period is entirely too short and is not comparable to the time allowed by all other industrial states.

2. The One Hundred Dollar (\$100) limit for the cost of such care.

3. The failure to provide for impartial medical testimony before Compensation Referees, and the lack of any provision for an injured worker to be examined by a physician of his own choosing.

4. The failure of the present Act to make the physician a "party at interest" in compensation litigation in regard to the collection of professional fees. The law permits a lawyer to appeal to the Compensation Board for collection of his fee, but denies this right to the doctor.

5. The present method of making awards for partial disability which are arbitrary and which work injustice to the worker and employer alike. This is particularly true of such conditions as the traumatic neuroses. The law also makes no distinction between the various types of occupation. For example, a ditch digger who loses a finger receives as much consideration as a musician, and likewise a musician who loses a leg is awarded the same amount of compensation as the ditch digger, even though he can probably earn as much minus his leg as he could before.

Your Committee agreed at the outset that in order to accomplish anything a plan must be worked out to which all the parties at interest could subscribe. To this end it was necessary to consult with the following agencies:

1. Organized Labor.
2. The Insurance Carriers.
3. The Self-Insurers.
4. Hospitals.
5. Physicians in private and hospital practice.

ORGANIZED LABOR

The United Mine Workers of the World, representing the most powerful group of organized workers, were consulted and through their acting president assured us of their complete sympathy with our efforts to secure a better Workmen's Compensation Act, and promised to coöperate in any way possible.

INSURANCE CARRIERS

A questionnaire was sent to the Claims Department of all leading companies writing compensation insurance in Pennsylvania. These companies were interrogated on the following points: 1. Limitation of time and money in regard to medical expense; 2. choice of physician by the injured; 3. impartial medical testimony in disputed claims.

Many of these companies replied at length, but before all were heard from the Committee received a communication from the National Council on Compensation Insurance saying that they regarded the subject of sufficient importance to call a special meeting of their Executive Committee, and invited the Chairman of your Committee to attend. This meeting was held on September 20, in New York City. The Executive Committee of the National Council is composed of the heads of the Claim Departments and the Medical Directors of nine of the largest insurance companies in the country. All of their members were present, and your Chairman received most courteous attention when the general plan was outlined. At the conclusion of the meeting these executives agreed to the following:

1. That it was not the function of an insurance carrier to influence legislation in any state, but rather to cover their risks under the terms of any law which might be enacted, the premium charged being based upon the provision of such laws.

2. That the thirty-day, \$100 limits in Pennsylvania were inadequate in many cases of major accident.

3. That regardless of the limitations imposed by any State law, it was the policy of their companies to grant extensions of time and increase in medical costs if by so doing they could be reasonably assured that a saving in compensation might be effected.

4. That in matters involving medical questions there should be a Medical Board to pass on these questions which are now decided by lay Referees. They approved our plan which will be outlined later.

5. That absolute free choice of physician was not for the best interests of the injured man, the employer or the insurance carrier. However, they agreed that if a list of physicians with their respective specialties, such as is contemplated by the Philadelphia County Society and as suggested by the State Society at the meeting of the Board of Trustees on October 4, 1933, was made available they were willing to have their risks treated by these physicians. They also agreed to approve the treating of any cases brought to a recognized hospital by the regular surgeons of that hospital, provided the surgeons agreed actually to treat the cases themselves and not delegate them to interns and junior members of their staffs. Mention was made of the lack of interest shown by many of our senior surgeons in compensation cases, but your Chairman, while not excusing such lack of interest, called attention to the fact that the type of consideration which surgeons had received in the past was not exactly conducive to an enthusiasm for compensation work.

6. That the principle of costs and service being parallel was accepted, and that physicians should be paid for treating compensation cases regardless of their location in a hospital. They disapproved without reservation of the attempts to cut a surgeon's bill in order to pay the hospital.

SELF-INSURERS

This group is made up largely of the public utilities, together with such organizations as operate in more than one state, and are therefore not insurable with the insurance carriers. The self-insurers have always taken the stand that no physician or surgeon was entitled to collect a fee for cases treated in hospital wards. The outrageous Mackey decision, now happily set aside by a more enlightened commissioner, forms the basis of this stand, together with the wording of the Act, which states that the fees charged for compensation cases shall not exceed those fees for *like service* in noncompensable cases. The Pennsylvania Self-Insurers' Association has attempted to bind its constituent members to an agreement whereby they refuse to pay for such services unless specifically contracted for by them and for any service rendered by a staff surgeon to a ward patient. This has made it virtually impossible for any surgeon to collect for services rendered to employees of these organizations. A certain number of more persistent doctors have been able to collect in a few isolated instances, but the fact remains that thousands of dollars worth of work is done for nothing each year, work for which the law says the doctor should be paid. When members of your Committee met representatives of the self-insurers they came away fully convinced that this

particular group was not aware of the fact that the world moves and that the fifteen years during which Workmen's Compensation has been in effect have seen any social progress whatever. Your Committee believes that there is no hope of getting coöperation from the self-insurers, that no reliance can be placed upon any statements made by their accredited representatives, and that they will consistently oppose any attempt to liberalize the Pennsylvania Workmen's Compensation Act. We must fight them with their own weapons and force them into line whether they like it or not.

THE RELATION OF THE PHYSICIAN TO THE COMPENSATION LAWS

Free Choice of Physician. After a most exhaustive study and free discussion of this question, it was considered the opinion of your Committee that it could not recommend *absolute* freedom of choice on the part of the injured man. There is much to be said upon both sides of this matter, but the stand taken by the insurance carriers that inasmuch as they are paying the bills they must have something to say regarding what they are paying for, has much justice in it. Our own house is not in complete order in the management of compensation cases. Too often men will attempt to treat conditions which training and experience do not qualify them to treat, merely because the conditions are compensable. The family physician of an injured worker should, however, be definitely recognized in compensation cases. He can and should treat many of them; he should be consulted by the surgeon; he should be permitted to testify before Compensation Referees, and should be permitted to charge for his services. The preparation of a list of physicians such as suggested above will go a long way toward settling this, and will do away with the lifting of cases to a great extent.

MEDICAL ADVISORY BOARD

At present all medical questions are passed upon by laymen. The Referees and the Workmen's Compensation Commissioners do the best they can according to their lights, but after all these lights are limited. There should be a Medical Board to pass upon medical questions, such as the extension of time for treatment, the rating of partial disability, etc. A plan has been formulated whereby a Medical Advisory Commission would be created for this purpose, and the following organization is suggested:

NUMBER ON COMMISSION: Three physicians.

TENURE OF OFFICE: Ten years.

SALARY: Same as members of Workmen's Compensation Commission.

SELECTION: Appointments to be nonpolitical. Nominations for appointments shall be made by the Trustees of The Medical Society of the State of Pennsylvania. Each nominee must have had at least five years of experience principally in industrial medicine or surgery. From this list the Governor shall make recommendation of name or names to be confirmed by the Senate.

REMOVAL: By the Governor only with approval by the Senate.

DUTIES: 1. Medical Jurisdiction (coördinating with legal jurisdiction of the Board).

- (a) Consultation with Workmen's Compensation Board.
- (b) Consultation with Workmen's Compensation Referees,
 - Opinions on medical testimony.
 - Opinions on physical examinations.
 - May authorize examinations by specialists.

2. Study of Results.

- (a) Occupational rehabilitation.
 - Need for operations or appliances.
 - Results in occupational placement.
 - May grant authority for and assess expense of
 - Major surgery (not emergency).
 - Exploratory operations.
 - Reconstruction surgery, etc.
- (b) The human element in accident prevention and rehabilitation.

(c) Study of professional practices.

Use and abuse of physiotherapy.

Open vs. closed reduction of fractures.

3. Study of Costs of Medical and Hospital Service.

- (a) Adjustment of complaints on medical or hospital service and fees. (Physician hospital, and dentist must be made a party to the act by amendment.)
 - By carrier of self-insurer.
 - By claimant or his agent.
 - By physician, hospital, or dentist.

(b) Reports on medical costs.

By insurance carriers.

By self-insurers.

Hospital costs.

Medical, surgical, and dental services.

On fee basis.

On contract or salary basis.

- (c) Compile and make available figures, by county and state, as basis for fee schedules.

Hospital costs.

Medical costs.

Dental costs.

4. Educational Function (the scientific, professional viewpoint).

- (a) Encourage research in Industrial Medicine and Surgery.
- (b) Stimulate teaching in medical and dental schools of Industrial Medicine and Surgery.
- (c) Lectures before scientific and professional societies.
- (d) Information for professional publications, books, etc.

MEDICAL TESTIMONY BEFORE REFEREES

Under the present system an injured man frequently has no real medical representation before a Referee in a disputed claim. He is treated by an "insurance doctor," or one retained by his employer. The records in the case are not open to him. He usually is not financially able to retain a physician competent to testify for him. To the end that this situation may be remedied your Committee recommends the appointment of a number of physicians to be known as "referee's witnesses," or "witnesses for the Board," whose duty it shall be to examine the injured man in every case in which there is a dispute; the fee for such examination to be \$10, to be paid by the claimant and the defendant in equal parts. These men should be designated by the County Medical Society in each district where compensation cases are heard. The claimants should agree to accept the decision of the witness or examiner, but should have the right of appeal to the Medical Advisory Commission.

FEE SCHEDULE

After giving this matter great consideration and drawing up a number of tentative schedules, your Committee was convinced that the fee schedule is not a workable instrument and therefore it is not recommended.

COLLECTION OF FEES

Under the present provisions of the Act the attending physician has no status at law. He may not institute a claim for his fee before a Compensation Referee. He is not permitted to attach any portion of the award made by the Board, although a lawyer representing an injured man may do so. If a physician is not paid for his services he can only proceed directly against the injured man who, in turn, must sue his employer. The futility of such a plan is obvious. Your Committee urges that the law be changed to give to the physician a definite status in these matters. He should be recognized as a "party at interest."

Your Committee believes that the recommendations contained in this report are practical and workable. To suggest changes in the present situation is one thing, to secure the enactment of these suggestions into law is another. Any attempt to liberalize or modernize our present inadequate Compensation Act in Pennsylvania is sure to be opposed by powerful interests which have no regard for anything but their pocketbooks. We believe that sufficient coöperation can be secured from those

organizations mentioned above to overcome this opposition. It is to this end that our efforts should now be directed.

(Signed) CALVIN M. SMYTH, JR., *Chairman*.

THE PRESIDENT: I think you will all agree that Chairman Smyth and his Committee have done a splendid piece of work. This report will be referred to the Reference Committee on New Business.

Have the chairmen of other committees anything to add?

JOHN A. FARRELL, West Chester: In the report that was made by the Committee to Study and Report on Forms of Medical Practice in State-owned Schools and Colleges they designated the different schools they investigated, numbered 1, 2, 3, 4, etc. I do not know just what was meant, but I do know that at our last convention, held in Philadelphia, I asked the convention if they would try to give us a definition of Contract Practice, because we were of the opinion that there might have been a violation of some rules of ethics in our vicinity. I suppose the appointment of this committee is the result of that action. As the question arose regarding the school in West Chester, if any investigation was to be made it might have been made of that school, but so far as I can learn there has been no effort made to find out if that man was practicing medicine according to our ethics. I was not requested to give any opinion, and I think no one belonging to our County Medical Society was questioned, and I wish to know just how thorough the investigation was and to whom these persons went in their investigation.

DAVID W. THOMAS, Lock Haven: The report on the Medical Service in the State Teachers School at West Chester is based on information from the President of the institution who knows the school physician, knew what his duties were, what salary he received, and all about it.

JOHN A. FARRELL, West Chester: Did you see the contract under which this man was functioning?

DAVID W. THOMAS, Lock Haven: I did not ask to see the contract.

THE PRESIDENT: This report will be referred to the Reference Committee on New Business. Before leaving the committee reports I wish to ask Dr. Weinberg if he has any additions to his Minority Report of the Committee on Economics.

MAX H. WEINBERG, Pittsburgh: There seems to be some misunderstanding about this Minority Report. The Minority Report covers only a small portion that according to our understanding should have originally gone into the Committee's report. There was one part that we felt should not be published, and that was a certain plan about which I will talk a little later. You who read the report in the September JOURNAL, as delivered in Pittsburgh last Thursday, from a point where you find a reference under the heading "How are we to meet the situation," did not receive the whole story. As the result of careful study I arrived at the point where I came to believe that we as doctors who are devoted to the tradition of doing all we can for our patients must do more than talk against this. I wish to finish the report now from the aforesaid point "How are we to meet the situation?"

That the inevitability of sickness insurance in this country is no longer an empty phrase is to be admitted. Even before the declaration of President Roosevelt in favor of social legislation, the havoc wrought by the

depression was in itself a sufficient factor in hastening the day of its enactment, because of the many people who have been thrown on relief. But after the Presidential declaration, which announced the drafting of model social legislation laws for the states to pattern after, the possibility of this type of insurance has become a probability.

There is no telling how soon our State Legislature will take up the question, and while the mood of the taxpayers is not such as to readily acquiesce in new taxation or rather increased costs, it is more than likely that the low earning groups, aided by the unemployed on relief, will be able to exert enough pressure to bring about the passage of such a law. This is especially likely to be so because of the influence of the Federal Government.

If this analysis of the situation is correct, then it behooves the medical profession to prepare some sort of plan for service to meet it. A plan of this kind must take time to prepare, and our efforts, therefore, should be directed toward persuading the State legislative bodies, at their coming session in 1935, to postpone consideration of the subject until the next legislative session, that of 1937, with a definite promise on our part to be prepared with a thoroughly satisfactory plan.

LEONARD G. REDDING, Scranton: Mr. President, I move that we go into executive session, *in camera*, and that Dr. Weinberg read the balance of his report, not for publication but for our enlightenment.

The motion was seconded by Fred M. Jacob, Pittsburgh, and carried.

JOHN A. FARRELL, West Chester: If we are going into executive session is every one in the room entitled to remain?

WILLIAM H. MAYER, Pittsburgh: Does every one in this room feel himself bound by his loyalty to the State Society not to reveal any word of this report that might reach publication. I think every gentleman here will understand his obligation to the Society. This report is not intended for publication in any form, for fear of misunderstanding.

THE PRESIDENT: Before hearing this report I will ask all in the room who should not be here to withdraw.

WILLIAM H. MAYER, Pittsburgh: May our executive session include the Component Society Officers, President, Secretary, and Chairmen of the standing committees present?

THE PRESIDENT: That will be satisfactory. Are you ready for Dr. Weinberg to proceed?

WILLIAM H. MAYER, Pittsburgh: I move that Dr. Weinberg proceed with the reading of his report.

The motion was regularly seconded and carried, and Dr. Weinberg presented the tentative plan.

(Note: The plan which was presented and discussed in detail by Dr. Weinberg, it will be noted, was referred to the Reference Committee on New Business. It will be further noted in the latter committee's report that it was referred back to the Committee on Medical Economics for future consideration.—Secretary.)

FRANCIS A. FAUGHT, Philadelphia: I move that this be considered part of the Minority Report and referred to the Reference Committee on New Business.

The motion was seconded and carried.

WILLIAM H. MAYER, Pittsburgh, moved that the House of Delegates return to regular session.

The motion was seconded and unanimously carried.

THE PRESIDENT: I wish to state at this time that I have referred the reports of the Cancer Commission, Committee on Appendicitis Mortality, Committee on Mental Hygiene, Committee on Pediatric Education, Committee on Conservation of Vision, Committee on Defense of Medical Research, and Delegate to the Pennsylvania Pharmaceutical Association to the Reference Committee on Scientific Business, Dr. Nassau, chairman.

CHARLES F. NASSAU, Philadelphia: We have not yet had an opportunity to have a meeting but will meet after adjournment of this House.

THE PRESIDENT: I have referred to the Reference Committee on New Business reports of the Medical Advisory Committee to State Emergency Relief Board, Committee on Medical Economics, Committee to Study and Report on Forms of Medical Practice in State-owned Schools and Colleges, and the Committee on Telephone Directory Classifications. Dr. Brumbaugh is chairman of this committee.

CLOY G. BRUMBAUGH, Huntingdon: I will request the other members of this committee to meet me in this room at the close of this session.

THE PRESIDENT: I have referred to the Reference Committee on Reports of Officers and Standing Committees the reports of the Secretary, Treasurer, Chairman of Board of Trustees, individual Councilors, Committee on Public Health Legislation, Committee on Public Relations, Committee on Society Comity and Policy, Committee on Medical Benevolence, Committee on Archives, Committee to Confer with Various Private and Governmental Health Agencies, Committee on Necrology, and the Delegates to the American Medical Association. Dr. Borzell is chairman of this committee.

FRANCIS F. BORZELL, Philadelphia: This committee will meet in Room 470, Mallow-Sterling Hotel, at 8 o'clock this evening, and between 9 and 11 to-morrow morning if there are any matters any one wishes to present to the committee.

THE PRESIDENT: If there is no additional report from our delegates to the American Medical Association we are now ready for the reading of correspondence.

SECRETARY DONALDSON: I have a communication under date of September 26, 1934, from the President and the Secretary of the Philadelphia Pediatric Society, proposing the following resolutions:

RESOLUTIONS

WHEREAS, Malnutrition constitutes a common disorder in children of school age and is frequently the forerunner of serious disease, and

WHEREAS, Approximately 20 per cent of the school child population in Pennsylvania has been found to be malnourished, and

WHEREAS, Severe grades of malnutrition may be prevented, corrected, and improved by recognized methods directed to overcome impoverished states of the child's health, by improvement in physical defects, adequate well-balanced food, an abundance of sunshine, fresh air and physical exercise, including play, rest, an adequate amount of sleep, and education in personal and home hygiene, and

WHEREAS, These requisites are frequently not carried out in the homes of underprivileged children, therefore, be it

Resolved, That the Philadelphia Pediatric Society petition The Medical Society of the State of Pennsylvania to bring these facts to the attention of our State executives interested in child welfare;

Resolved, That the State Legislature be requested to inaugurate means for the establishment of camps to be known as "Nutrition Camps" where malnourished children of school age, between the years of 6 and 16 may obtain the benefit of those measures and management generally regarded as essential in improving undernutrition;

Resolved, That the maintenance of children at such camps include a period of 8 weeks beginning with the first day of July and ending with the first day of September;

* Health Camps suggested as a more appropriate term.

Resolved, That such care be limited to children of school age for whom camp life is regarded highly beneficial, but whose parents are unable to meet the current expense for such care or when the cost of private camps is prohibitive;

Resolved, That the expense for establishing such camps and their maintenance, including the expenses incurred by carrying this program into effect, be met as far as is possible by public funds and by fees of a sliding scale by parents of the children able to meet them;

Resolved, That available camps, such as those abandoned by the C. C. C. be utilized for housing these children and personnel; and be it further

Resolved, That a committee be appointed to consist of (a) His Excellency, the Governor of the State of Pennsylvania, the Secretary of Health, the Secretary of Welfare, (b) three members representing the State Bureau of Education, (c) one representative of The Medical Society of the State of Pennsylvania, and (d) one representative each of the local pediatric societies of the State;

Resolved, That this committee constitute a Board of Governors who will cooperate with necessary experts in the field of nutrition and camp work to organize and direct this movement. (Signed)

WILLIAM N. BRADLEY,
H. HARRIS PERLMAN.

I advised that Dr. Bradley request the House of Delegates to receive this communication and refer it to the Board of Trustees for study before the next meeting of the Legislature.

SETH A. BRUMM, Philadelphia: I move that this advice be concurred with and that this matter be referred to the Board of Trustees.

The motion was seconded and carried.

Secretary Donaldson then read the following communication from the Catholic Hospital Association:

September 11, 1934.

To the Members of the House of Delegates of The Medical Society of the State of Pennsylvania:

The formulation of the Ten Point Policy adopted by the House of Delegates of the American Medical Association at the convention in Cleveland with reference to medical practice has commended itself very strongly to the Catholic Hospital Association. To express more fully the sentiments of our Association on the matter, three resolutions were adopted at the Nineteenth Annual Convention of the Catholic Hospital Association, Numbers 37, 38, and 39, to which your attention, as they are contained in the enclosed reprint, is respectfully directed.

In further amplification of the thoughts contained in these three resolutions, "Hospital Progress" of August, 1934, contained an editorial, a copy of which I take the liberty of enclosing.

Since our Association has always considered it a basic principle that the hospital administrators and their medical staffs must always work in the closest union for the safeguarding of mutual rights and privileges, I am sure we should welcome an expression of your comments on and criticisms of both the resolutions and the editorial.

Very truly yours,

(Signed) ALPHONSE M. SCHWITALLA, S.J.

Excerpts from the Resolutions unanimously adopted at the closing meeting of the Catholic Hospital Association of the United States and Canada at its Nineteenth Annual Convention, Cleveland Public Auditorium, Cleveland, Ohio, June 22, 1934:

Be it further Resolved, That this Association again hereby proclaim its adherence to the principle that medical and hospital practice must rest upon a personal relationship between the patient and physician, which relationship implies moral obligations; that, therefore, under the usual conditions of medical practice the patient's right to choose a physician, qualified legally, professionally and morally, must not be curtailed; that, therefore, this confidential relationship between the patient and physician be deemed a necessary basis for good medical practice; and that finally our hospitals commit themselves to the formulation and administration of only such hospital policies as are consistent with the maintenance of this fundamental personal relationship.

Be it further Resolved, That this Association hereby restate its adherence to the principle that the medical profession must be recognized as preeminent in any methods of medical practice and service; that, therefore, the medical profession must be accorded predominant influence in the medical activities of all institutions giving health and sickness care and that, therefore, the hospital members of this Association commit themselves to the policy that the rights, duties, and privileges of the medical profession be considered directive and authoritative in hospital science and service.

Be it further Resolved, That this Association, while it deems a careful and cautious study of the methods of affording relief to the low income classes as worthy of the fullest encouragement yet hereby again repeats its warning previously issued on more than one occasion against facile and ill considered schemes which ignore acceptable basic principles and cannot, therefore,

but be harmful to society; that it again call attention to the danger to the nation's health and welfare arising out of the many projected plans for group hospitalization, hospitalization insurance and other similar schemes through which, in many cases, the commercial ambitions of individuals rather than the social and economic and hygienic good of national and other social groups are furthered.

This was referred to the Reference Committee on New Business.

THE PRESIDENT: If there is no further correspondence we are ready to proceed to new business.

FREDERICK S. BALDI, Philadelphia, presented the following resolutions:

RESOLUTION

Be it Resolved, By the House of Delegates of The Medical Society of the State of Pennsylvania that owing to the alarming increase of the use by the laity of certain hypnotic and analgesic drugs, which is frequently followed by acute and chronic intoxication and occasional complications resulting in death, this Society urgently request the Secretary of Health of the Commonwealth of Pennsylvania to frame a suitable bill or make such amendments to existing health laws as will restrict the sale of certain drugs, hereinafter mentioned, except on the written prescription of a duly licensed physician, dentist, or veterinarian; and

Be it further Resolved, That the Secretary of Health present to the General Assembly at its next regular biennial session, a bill restricting the sale of the following drugs or chemicals with the exception previously mentioned: barbital—the salts of barbitalic acid, its derivatives or compounds; sulphonethylmethanum (trional); sulphonmethanum (sulphonal); diethylsulphon diethylmethanum (tetronal); chloral-chloral hydrate; atipyrine or its compounds, or *amidopyrine; phenylcinchoninic acid (cinchophen); bromdiethylacetyl carcamide (carbromalum); paraldehyde; chlorbutanol; and †dinitrophenol or its compounds.

THE PRESIDENT: I will refer this to the Reference Committee on Scientific Business. Is there any further new business?

FRANCIS A. FAUGHT, Philadelphia: Speaking for the Philadelphia County Medical Society which presented a proposed amendment to the By-laws that appears on page 123 of the Handbook, we wish to withdraw that amendment and offer a substitute resolution. Our reason for wishing to withdraw this is that the impediment has disappeared in the interim and there is no reason, it seems to us, that this should now be considered. I move that it be withdrawn.

The motion was seconded and carried.

FRANCIS A. FAUGHT: I wish to present the following resolution in its place:

RESOLUTION

WHEREAS, The Committee on Medical Economics of The Medical Society of the State of Pennsylvania has not been able to complete the work assigned to it, therefore

Be it Resolved, That the Committee on Medical Economics be continued for another year, and further

Be it Resolved, That this committee shall be composed of not less than 5 members, and further

Be it Resolved, That the activities of this committee be supported by an adequate budget.

We believe that the committee should have the right to appoint subcommittees and additional members if necessary.

WILLIAM H. MAYER, Pittsburgh: I ask the privilege of the Chair to withdraw all the proposed amendments, to clear the amendment sheet. This is satisfactory to those who offered the amendments, and I move that this be done.

The motion was seconded by Frederick S. Baldi and carried.

LEONARD G. REDDING, Scranton: I wish to present the following resolution:

* The drug cited in recent literature as being responsible for many of the cases of agranulocytic angina.

† The drug used for obesity.

RESOLUTION

WHEREAS, The Committee on Conservation of Vision of The Medical Society of the State of Pennsylvania has inaugurated a comprehensive State-wide project which has just completed its organization, and

WHEREAS, The term of one year under which this committee was created is insufficient for its proper functioning; therefore, be it

Resolved, That the Committee on Conservation of Vision be continued for the fiscal year 1934-1935 with a budget appropriation not to exceed \$100.

THE PRESIDENT: I will refer this to the Committee on Scientific Business. Is there anything further?

T. LAMAR WILLIAMS, Mt. Carmel, presented the following resolution:

RESOLUTION

The Schuylkill County Medical Society in session assembled in response to a call for a special meeting on the 25th day of September, 1934, at the society headquarters in the Library Building at Pottsville, having heard from many objectors and few defenders of the present Emergency Medical Relief Administration, do hereby instruct the Delegates from the Schuylkill County Medical Society to the annual session of The Medical Society of the State of Pennsylvania as follows:

1. The Society feels dissatisfaction with the general program of the State Emergency Medical Relief.

A. Limitations in respect to:

a. Number of necessary calls in individual cases.

b. Reduction of fees from original status of program, without explanation to the physician presenting the bill.

c. Obstetric fee too little. Further reduction of fee in emergency obstetric cases.

d. Amount of medication permitted per patient.

B. Tardiness in relief offices in issuing medical orders and pharmacists' orders.

2. Disproportion of relief funds allocated to the medical profession in respect to monies given to other relief departments.

3. Endangering the patient-physician relationship.

THE PRESIDENT: I will refer this to the Committee on New Business. Is there anything further?

ARNO R. ZACK, Bethlehem, presented the following resolution:

RESOLUTION

Resolved, That the members of the Northampton County Medical Society here convened in legal session, September 21, 1934, disapprove of, and protest against, the continued operation of the present medical relief program. This program is inadequate, insufficient, and arbitrarily operated in a manner entirely out of sympathy with the problems of the individual practitioner;

Resolved, That the delegates of the Northampton County Medical Society to the State Medical Society Convention at Wilkes-Barre, Pa., in October, 1934, be instructed to vote against a continuance of the present "hook-up";

Resolved, That our delegates request that a new program be set up through the agency of the House of Delegates and Board of Trustees of The Medical Society of the State of Pennsylvania, and that this plan shall be in sympathy with the best interests of the individual practitioner.

DR. ZACK: Our society caused to be printed a number of bulletins containing the committee's views. They are very similar to Dr. Weinberg's, and the fact that we went into executive session a while ago to hear his report makes me hesitate to pass out these bulletins, although I have one for every member of the House of Delegates.

THE PRESIDENT: I will refer this resolution to the Reference Committee on New Business. What is your wish about distributing these bulletins?

WILLIAM H. MAYER, Pittsburgh: I think this is a different matter, but I think we should refrain from talking to any members of the press about it.

THE PRESIDENT: I wish to call the attention of the House of Delegates to two Resolutions which appear on page 124 of the Official Program regarding a Commission on Maternal Welfare, sponsored by Dr. Philip F. Williams, of Philadelphia, and a special committee on Physical Therapy.

GEORGE C. YEAGER, Philadelphia: We have a few copies of the Philadelphia report on Maternal Mortality

that you might look over. You might become interested in having this movement become state-wide.

THE PRESIDENT: I will refer this to the Committee on Scientific Business. The second Resolution was sponsored by Dr. Frank H. Krusen.

FRANK H. KRUSEN, Philadelphia: This resolution was brought about because of action by the House of Delegates of the American Medical Association, and we thought it might be well to have it taken up in our State.

THE PRESIDENT: I will refer this resolution to the Reference Committee on Scientific Business. Is there any further new business?

WILLIAM H. MAYER, Pittsburgh: On September 5 we had a conference in Harrisburg, and at that informal conference we formulated some principles of action. I move that the Principles recommended at this time be referred to the Reference Committee on New Business for consideration.

The motion was seconded and carried.

THE PRESIDENT: There has been some talk about the necessity for having an extra session of the House of Delegates, because of the unusual amount of work referred to the Reference Committees. Please consider this when you fix the time for the next meeting.

PRUS A. NOLL, York: I move that we meet some time to-morrow afternoon.

The motion was seconded by John A. Farrell, West Chester.

SECRETARY DONALDSON: The entire success of such meeting would depend upon the ability of the various Reference Committees to be ready to report tomorrow afternoon. If this can be arranged I think it would be a good thing, and I suggest that the meeting be held as late as 4:30. I think if the reports are well prepared we could dispose of all of them within an hour and a half.

FRANCIS F. BORZELL, Philadelphia: I think many of the reports will require no controversy, while others will. Would it be possible for the Reference Committee on New Business to take up tonight and tomorrow morning those subjects which have a controversial aspect and report on those tomorrow afternoon, leaving the others for Wednesday morning?

CLARENCE R. PHILLIPS, Harrisburg: I suggest that if possible we meet in some other room than this, as the acoustics here are very bad.

LEWIS T. BUCKMAN, Wilkes-Barre: The home building of the Luzerne County Medical Society is available for such meeting.

SECRETARY DONALDSON: I cannot say now what room will be available, but will have matters arranged so that a definite announcement can be made at the General Meeting tomorrow morning. It is very kind of the Luzerne County Medical Society to offer us the use of their rooms.

THE PRESIDENT: There is a motion before the House that there be an extra session of the House of Delegates on Tuesday afternoon at 4 o'clock. Are you ready for the question?

The motion was put to a vote and carried.

The House of Delegates adjourned at 5 p. m.

DONALD GUTHRIE, *President*,
WALTER F. DONALDSON, *Secretary*,
HENRY G. MUNSON, *Assistant Secretary*.

Tuesday Afternoon, Oct. 2, 1934

The special meeting of the House of Delegates was called to order in the Auditorium of the Luzerne County Medical Society, Wilkes-Barre, on Tuesday, Oct. 2, 1934, at 4:10 p. m., by the president, Moses Behrend, Philadelphia.

THE PRESIDENT: The special meeting of the House of Delegates will please come to order. What is your wish in regard to reading of the minutes of the regular session yesterday afternoon?

SETH A. BRUMM, Philadelphia, moved that the reading of the minutes be dispensed with.

The motion was seconded and unanimously carried.

THE PRESIDENT: Gentlemen, we will consider only the reports of our Reference Committees at this meeting, and if necessary only the controversial matters in their reports. The first report will be that of the Reference Committee on Reports of Officers and Standing Committees, Dr. Borzell, chairman.

FRANCIS F. BORZELL, Philadelphia: Your Reference Committee is prepared to make a complete report at this time, Mr. President, and I think there is very little controversial matter.

Dr. Borzell then presented the following report, which was adopted section by section:

REPORT OF REFERENCE COMMITTEE ON REPORTS OF OFFICERS AND STANDING COMMITTEES

REPORT OF SECRETARY

The Committee is pleased to note an increase in membership of 248 in 1934 over 1933; 25 counties showed a gain, 7 showed no change, and 28 showed a loss. This is particularly commendable under the stress of recent years.

It is noted with satisfaction that the Medical Defense Fund is functioning adequately.

The Secretary's financial statement is recommended to the membership for careful scrutiny so that they may familiarize themselves with the voluminous activities of the State Society.

The committee commends the Secretary for his wholehearted coöperative activities, looking toward a coördinated State organization.

We recommend the adoption of this report with commendation.

REPORT OF TREASURER

As far as the Committee has been able to examine and interpret, and in view of the already certified auditing, we find the Treasurer's report correct and recommend its adoption.

REPORT OF CHAIRMAN OF BOARD OF TRUSTEES

It is noted that the report is introduced by a statement of the duties of the Board of Trustees. Attention is called to the report of the December meeting of the Board at which Chairman Stewart of the Committee on Public Health Legislation presented a report on bills to be presented at the current extra session of the Legislature, with special reference to changes in the Workmen's Compensation Laws.

After thorough discussion (quoting from the report) the Board approved the following:

"That The Medical Society of the State of Pennsylvania and its 60 component county medical societies, with its total membership approximating 8000 members who practice in the 67 counties in Pennsylvania, recognize certain qualifications as necessary for the individual physician desiring to practice industrial medicine and

surgery; and that the above mentioned societies undertake, through appropriate committees, to list those physicians in the State believed to be qualified for such special work. Further, that they withdraw their endorsement at any time any physician's work is found by the said committees to be of unsatisfactory quality. We believe that these suggestions should be offered in the form of an amendment to any and all proposed Workmen's Compensation Legislation that offers better medical service to beneficiaries of the Workmen's Compensation Act and is otherwise satisfactory to our members."

Particularly in the light of the very comprehensive and extremely commendable report of the Special Committee on Workmen's Compensation, this Committee is in full accord with the principles expressed by the Board of Trustees; but the question is raised, and we hope for the serious consideration of the House of Delegates, of the propriety or legality of the Board of Trustees' assumption of the prerogative of expressing and establishing any broad basic principles or policies without the proper legal procedure of referendum or action of the House of Delegates, as provided by the By-laws. This is not in criticism of the intent or motive of the Board of Trustees, but rather expressed as a caution against the assumption of powers not legally theirs, but specifically inherent in the legislative body, namely, the House of Delegates.

The Reference Committee notes with a great degree of pleasure the continued reports of the activities of President Guthrie in the matter of the state-wide program of postgraduate instruction.

The Reference Committee noted that the Chairman of the Board of Trustees in reporting the study of medical services in State Teachers' Colleges, of which Dr. Thomas was Chairman, stated that the Committee had presented a complete and detailed survey of such studies. The Reference Committee also noted that a motion prevailed that the work of the Committee be approved and their study be continued, with instructions to bring a definite recommendation to the next meeting of the Board in October in answer to the discussion on the subject that took place in the 1933 House of Delegates.

The Reference Committee raises the question of the complete accuracy of the conclusions concerning this report, in the light of the report submitted to the House of Delegates by this Committee. It is the opinion of the Committee that this report is neither complete nor detailed, nor begins to approach a solution of the query which was the motivating factor in the original resolution presented to the House of Delegates. Since, however, the substance of the report of this Special Committee is not within the province of the Reference Committee on Reports of Officers and Standing Committees, our only criticism must be with the conclusions drawn in the report by the Chairman of the Board of Trustees.

The Committee therefore recommends to the House that they do not concur with the Board of Trustees in their statement that the work of this committee is completed.

The Committee notes with satisfaction the progress of the new State Society building.

Our Committee is in full accord with the policy expressed by the Board of Trustees in the matter of the necessity for complete agreement on public policies between the governing bodies of the State Society and the Component Societies, such agreement to be expressed publicly between annual sessions only through the mouthpiece of the State Society, which is the standing Committee on Public Relations.

We also approve and recommend the continuance of the policy that the Committee on Medical Economics function as a separate fact-finding committee, responsible to the Board of Trustees and the House of Delegates.

On the whole the Reference Committee recommends hearty commendation of the Board of Trustees for their untiring efforts in behalf of the State Medical Society. The only comment the Committee has to make is that it feels that a report of such an important activity as the JOURNAL should be rather more comprehensive and detailed.

REPORTS OF INDIVIDUAL COUNCILORS

Anent the report of the Councilor from the First District the Committee solemnly recommends that a proper record be made in the transactions of the House of Delegates of the loss through death of one of our oldest and most esteemed members, George A. Knowles.

The Committee recommends that the component county societies make note of the tremendous increase in membership attained by concerted effort on the part of the Philadelphia County Medical Society.

The Committee recommends the commendation of the individual Councilors for their unselfish activities and untiring zeal in their respective districts.

REPORT OF COMMITTEE ON PUBLIC HEALTH LEGISLATION

The Reference Committee calls attention to the dual character of this report, namely, that dealing with the activities of this Committee from our last session up to May 1. During this period the committee was under the able leadership of Alexander H. Stewart. Beginning with May 1 the chairmanship was assumed by C. Luck Palmer, who has made a satisfactory report for this short period.

The Committee takes pleasure in commending Dr. Stewart for his splendid work on this committee.

The Committee, recognizing the enormous task facing Dr. Palmer in the very near future, recommends strongly that the component societies heed the pleas of his Committee for the closest coöperation and the most helpful consideration of the comprehensive program laid down by Dr. Palmer. The Reference Committee, recognizing the demands made upon the Chairman of the Committee on Public Health Legislation in the past, and realizing the certainty of still greater demands on this Committee in the near future, particularly during the sessions of the legislature, would recommend the serious consideration of some provision for adequate compensation of the Chairman for the obvious sacrifice made by him in the interest of medical service at large and our own economic interests in particular.

The Committee recommends the unqualified adoption of this report.

REPORT OF COMMITTEE ON PUBLIC RELATIONS

The Reference Committee studied very carefully each of the 11 resolutions presented to the Board of Trustees relative to the policy of this Committee in matters of publicity during the coming year.

To avoid a waste of time the Committee recommends the approval by the House of Delegates of each of these 11 resolutions as appearing on pages 180, 181, and 182 of the Official Program of this session, or page 1077 of the September JOURNAL.

The Committee wishes to commend in the highest terms possible the work of Chairman Mayer and his Committee during this past year. We recommend the adoption of this report.

REPORT OF COMMITTEE ON SOCIETY COMITY AND POLICY

The Committee recommends the adoption of the report of the Committee on Society Comity and Policy.

REPORT OF COMMITTEE ON MEDICAL BENEVOLENCE

The Committee recommends adoption of the report of this Committee, with special emphasis upon the coöperation and invaluable assistance of the Woman's Auxiliaries throughout the State. In times such as these we cannot help but value the assistance of the Woman's Auxiliaries.

REPORT OF COMMITTEE ON ARCHIVES

The Committee recommends the adoption of the report of this Committee.

REPORT OF COMMITTEE ON GOVERNMENTAL AND PRIVATE HEALTH AGENCIES

The Committee emphasizes the stress made by this Committee on the necessity for continued support of the activities of the American Red Cross.

The Committee notes with pleasure the whole-hearted coöperation of the Secretary of the State Department of Health, Theodore B. Appel.

The Committee feels that in this Committee there are potentialities for immense service to the medical profession and to the public at large which are not indicated in this report.

REPORT OF DELEGATES TO THE PENNSYLVANIA PHARMACEUTICAL SOCIETY

The Committee recommends the adoption of this report.

REPORT OF DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

The Committee commends the Chairman, Dr. Mayer, on his comprehensive, concise report of the activities of our delegates at Cleveland. The Committee calls particular attention to the reported action of the House of Delegates in approving the rebuke tendered the Board of Regents of the American College of Surgeons by the Judicial Council.

The Committee further recommends, in keeping with the historical policy of The Medical Society of the State of Pennsylvania, that the American Medical Association and its constituent branches should be the only bodies to promulgate basic policies concerning medical practice.

We recommend that the House of Delegates of The Medical Society of the State of Pennsylvania go on record as approving the actions of the House of Delegates of the American Medical Association in the matter of the ill-advised pronouncements of the Board of Regents of the American College of Surgeons.

We recommend the adoption of this report.

REPORT OF COMMITTEE ON NECROLOGY

The Committee recommends the adoption of the report of this Committee.

PRESIDENT'S ADDRESS

The Committee commends most heartily the scholarly, dignified, timely address of our retiring President, Donald Guthrie.

Recognizing the inestimable value and potentialities of postgraduate instruction and the importance of the impetus given this work by the personality and initiative of Dr. Guthrie, the Committee recommends that this work be continued under his chairmanship.

The Committee recommends the approval of the sentiments expressed and the principles enunciated in this address.

The Committee further recommends studious reading of this address by every member of our Society, as it will appear in the minutes of this session to be published in the November, 1934, PENNSYLVANIA MEDICAL JOURNAL.

(Signed) FRANCIS F. BORZELL, *Chairman*,
JOHN A. FARRELL,
FRANK S. BOYER.

WILLIAM H. MAYER, Pittsburgh, moved that the report be adopted as a whole.

The motion was seconded by several and unanimously carried.

THE PRESIDENT: The next order of business is the report of the Reference Committee on Scientific Business, Dr. Nassau, chairman.

CHARLES F. NASSAU, Philadelphia, presented the following report:

REPORT OF REFERENCE COMMITTEE ON SCIENTIFIC BUSINESS

Your Reference Committee on Scientific Business recommends the adoption of the reports of the various committees as published in the September issue of the State JOURNAL and referred to this Committee. In addition, we desire to recommend the adoption of the report of the Committee on Conservation of Vision. We recommend that this Committee be continued for at least another year and that an appropriation be made to this Committee not to exceed \$100.

A resolution was proposed by Dr. Baldi, Philadelphia, concerning the restriction in prescribing hypnotic drugs. We recommend that a committee be appointed to investigate this question and report at the next meeting of the State Society. We advise also adoption of the 2 resolutions, one creating a Commission on Maternal Welfare and one asking for a special Committee on Physical Therapy (see page 1055, September, 1934, JOURNAL).

CHARLES F. NASSAU, *Chairman*,
LEONARD G. REDDING,
FRANK N. EMMERT.

SETH A. BRUMM, Philadelphia, moved the adoption of this report.

The motion was seconded by William H. Mayer, Pittsburgh, and carried.

THE PRESIDENT: We will next hear the report of the Reference Committee on New Business, Dr. Brumbaugh, chairman.

CLOY G. BRUMBAUGH, Huntingdon, presented the following report:

REPORT OF THE REFERENCE COMMITTEE ON NEW BUSINESS

Your Reference Committee on New Business is impressed by the tremendous work, careful thought, and mature judgment involved in the various reports referred for consideration. Our Society is, as a whole, under deep obligation to the individual members of these committees.

REPORT OF THE COMMITTEE ON MEDICAL ECONOMICS

The Committee on Medical Economics brings its report in sections, each of which comprises a summary of the Committee's investigations and conclusions on some one phase of medical economics. To avoid confusion I suggest that this House consider and act on each section separately.

SUMMARY ON ANALYSIS OF THE QUESTIONNAIRE
DISTRIBUTED BY THE COMMITTEE ON MEDICAL
ECONOMICS, MAY, 1934

This analysis showed that only one-fifth of the county societies of Pennsylvania have economics committees although about one-third are active in the consideration of economics problems. In rural districts little work has been done. One-third of the county societies have no difficulty with hospitals, and with the remainder the chief trouble is in the excessive number of charity patients.

The Committee urges every county society to appoint a committee on economics and points the urgent need for energetic study of economic problems by component county societies.

Your Reference Committee approves of this section and I move its adoption.

The motion was seconded by Leonard G. Redding, Scranton, and unanimously carried.

SUMMARY ON GROUP HOSPITALIZATION

The Committee on Economics points out that Group Hospitalization is definitely an insurance scheme which is likely to benefit the hospital more than the public, that there has been no popular demand for such hospital service, that all such plans are in the experimental stage, and that all known plans of Group Hospitalization "are heavily laden with possibilities for great danger to the values in the existing forms of medical practice." They recommend that The Medical Society of the State of Pennsylvania disapprove of this plan of hospitalization.

Your Reference Committee approves of this recommendation and I move its adoption.

The motion was seconded by Seth A. Brummi, Philadelphia, and unanimously carried.

SUMMARY ON PUBLIC HEALTH DEPARTMENT
COÖPERATION IN IMMUNIZATION OF SCHOOL CHILDREN,
PRESCHOOL EXAMINATION OF SCHOOL CHILDREN,
EYE EXAMINATION OF SCHOOL CHILDREN

The Committee on Economics makes no definite recommendation but believes the best plan for handling such public health work is a coöperative one in which the Health Department's publicity facilities and trained assistants do the promotion work and the doctor does the medical work. Patients who can pay are expected to pay whereas the community pays at a reduced rate for those who cannot themselves pay for such services.

Your Reference Committee approves and I move its adoption.

The motion was seconded by Henry G. Munson, Philadelphia, and unanimously carried.

SUMMARY ON MEDICAL CARE OF INDIGENT

The Committee on Medical Economics confines itself to consideration of chronic paupers and does not discuss the Emergency Medical Relief.

Four ways in Pennsylvania of furnishing care of paupers:

1. County Commissioners act as Directors of the Poor.
2. Board of 3 persons elected by popular vote.
3. Directors of the Poor appointed by Judge.
4. Certain counties divided into districts, each of which has a Poor Board.

They suggest that we advocate the creation of a Joint Board in any poor district with equal representation from the Poor Board and the county medical society.

Your Reference Committee approves of this suggestion and I move its adoption.

The motion was seconded by John A. Farrell, West Chester, and unanimously carried.

SUMMARY ON CONTRACT PRACTICE

The Committee on Medical Economics believes that "to curb abuses of contract medical practice no one definite set of rules will cover every case existing nor those yet unborn." It affirms its belief in the adequacy of the Code of Medical Ethics of the American Medical Association and believes that every county society should have an active elected committee, "whose duty it shall be to examine contractual medical service agreements entered into or about to be entered into by its members and to suppress unethical practice, such committees to have power to obtain testimony, prefer charges, and recommend disciplinary measures."

Your Reference Committee concurs in the belief of the adequacy of the principles of the American Medical Association but would note that the Board of Censors in each county society now has all the duties, rights, and authority of the proposed committee. Your Reference Committee recommends that the Board of Censors in each county society be authorized to examine every medical practice contract about to be entered into within its jurisdiction.

I move the adoption of this section, except the last paragraph which deals with the appointment of a Committee on Contractual Ethics.

The motion was seconded.

FRANCIS A. FAUGHT, Philadelphia: I would like to ask whether such a resolution passed by this House makes it mandatory upon county committees to proceed on such an investigation.

SECRETARY DONALDSON: The action of the House of Delegates would not necessarily make it mandatory, but I would advise that the Model By-laws for Component Societies, which were adopted in 1932 by our House of Delegates be revised so that next year this recommendation may be considered by this House.

FRANCIS A. FAUGHT, Philadelphia: Then I presume it would mean that the county societies would take no such action and I think the point rather unnecessary and weak.

J. NEWTON HUNSBERGER, Norristown: I agree with Dr. Donaldson that there would have to be a change in the By-laws of component societies to define such duties of the Censors much more thoroughly.

CLOY G. BRUMBAUGH, Huntingdon: I think the Model By-laws that has been adopted pretty largely by the county societies provides that the Board of Censors is specifically charged with the duty of taking testimony and making investigation, but I think the plan usually is for some member to bring charges against brother members and then the Censors act. In this your Committee is recommending that the Board of Censors take the initiative in relation to contract practice.

Dr. Brumbaugh's motion to adopt this section was put to a vote and carried.

SUMMARY ON OUTPATIENT DEPARTMENTS

The Committee on Economics cites convincing reasons why indiscriminate admissions to hospital dispensaries are against the best interests of the public and suggests that a plan which requires all applicants for dispensary care to sign a sworn statement certifying their indigency might be appropriate to the dispensary problems in Pennsylvania. It concludes that "the day clinic and

night clinic furnishing diagnosis and treatment service to patients of limited means appear to form a competition by hospitals with private practitioners of medicine and as such should not be encouraged."

Your Reference Committee agrees and I move its adoption.

The motion was seconded by Thomas R. Currie, Philadelphia, and unanimously carried.

SUMMARY ON ANCILLARY SERVICES

The Committee on Economics notes that while there is friction many a time between the Medical Service and the Auxiliary Service, "intelligent treatment requires a social as well as a medical appraisal. Broad understanding and willingness to cooperate with like-minded and interested workers should be the medical profession's attitude toward Medical Social Service."

Your Reference Committee concurs in this suggestion and I move the adoption of the section.

The motion was seconded by Francis F. Borzell, Philadelphia, and unanimously carried.

SUMMARY ON COMPULSORY INSURANCE SICKNESS PLAN IN GERMANY, GREAT BRITAIN, AND FRANCE

The Committee's report on this subject shows extended research and presents fairly the advantages and disadvantages of the various plans on Sickness Insurance. The majority concludes that no existing plan is desirable from the standpoint of either Public or Medical Welfare, and recommends the adoption of the 10 principles set forth by the American Medical Association at the recent meeting at Cleveland "as the basis of the conduct of any sociological experiment that may be contemplated on the existing forms of medical practice in Pennsylvania."

Max H. Weinberg, the member of the Committee on Medical Economics who signed the Minority Report, presented at yesterday's session of this House, a plan intended to correct many of the evils complained of by those who favor health insurance and other forms of socialized medicine. Your Reference Committee sees considerable merit in this plan but feels that it would be premature on the part of the State Medical Society to adopt any plan at this time. The Reference Committee recommends that this plan be referred back to the Committee on Medical Economics for further consideration and that every member of the State Society read and study the authoritative discussion of Sickness Insurance plans embodied in the majority and minority reports of the Committee on Medical Economics.

Your Reference Committee approves of the majority report of the committee and I move its adoption.

The motion was seconded by Francis A. Faught, Philadelphia, and unanimously carried.

SETH A. BRUMM, Philadelphia, moved the adoption of the report of the Committee on Economics as a whole, subject to the amendments now adopted at this session of the House of Delegates.

The motion was seconded by Leonard G. Redding, Scranton, and unanimously carried.

The Philadelphia County Medical Society presents a resolution to the effect that, inasmuch as the Committee on Medical Economics has not been able to complete the work assigned it, this Committee should be continued for another year, that it should be composed of not less than 5 members, and that it should be supported by an adequate budget.

Your Reference Committee approves of this resolution and moves its adoption.

The motion was seconded by Seth A. Brumm, Philadelphia, and unanimously carried.

The Northampton County Medical Society presents in great detail a proposed plan for the medical care of the indigent. This plan shows careful thought on the subject and also embodies many suggestions of great merit. However, your Reference Committee feels in this case that any plan to be adopted as a policy of this State Society should have longer and more careful thought than can be given it at this session of the House of Delegates.

Your Reference Committee recommends that this plan be referred to the Committee on Medical Economics, that the Northampton County Medical Society be congratulated on its valuable contribution, and that they continue their efforts for the practical adoption of their plan in Northampton County. I move the adoption of this recommendation.

The motion was seconded by Thomas R. Currie, Philadelphia, and unanimously carried.

A communication from the Catholic Hospital Association encloses excerpts from resolutions unanimously adopted at the meeting of the Catholic Hospital Association of the United States and Canada at its Nineteenth Annual Convention held at Cleveland, Ohio, June 22, 1934. These resolutions embody the spirit of the 10 points adopted by the American Medical Association at its annual meeting in June of this year at Cleveland.

Your Reference Committee moves that the Secretary of the Catholic Hospital Association be informed of our entire approval of their action and that we express to them the thanks of The Medical Society of the State of Pennsylvania for their stand in these matters.

The motion was seconded by William H. Mayer, Pittsburgh, and unanimously carried.

REPORT OF COMMITTEE TO STUDY AND REPORT ON FORMS OF MEDICAL PRACTICE IN STATE-OWNED SCHOOLS AND COLLEGES

It is apparent that this Committee has made a careful study of the Contractual Medicine set-up in the various state-owned schools and colleges of Pennsylvania. It has found no instance in which the medical welfare of the student is neglected or his rights abridged. In 4 instances the rights of fellow physicians are possibly invaded where part-time physicians are employed and where underbidding for the contract may obtain. In one instance a full-time physician, on the payroll of the State, serves the faculty and employees of the college at his office during college hours at the expense of the taxpayer. The Board Committee holds that this House of Delegates should support the protest of any component county society against the extension of the activities of the agencies they reviewed beyond the legitimate purpose for which they were created but feels that each must first be considered as a component society problem with the use of the usual organizational machinery set up for appeal.

Your Reference Committee approves of this report and I move its adoption.

The motion was seconded by Francis F. Borzell, Philadelphia.

JOHN A. FARRELL, West Chester: Before the adoption of this report, Mr. President, may I speak a word? Let us find ourselves understanding this very important point. The question before us is not whether this is contract practice *per se* but whether it is actually a violation of our code of ethics. There is no feeling on my part in this matter; I am talking in behalf of our Society. We asked at the convention in Philadelphia a

year ago for a definition of contract practice within the meaning of reasonable competition. That is the point. It is not a matter of what has been given this committee to investigate, but whether there has been violation of that section of our code of ethics as to what constitutes reasonable competition. The Committee was appointed and there has been a complete and final decision on this matter. I am certainly willing to accept the decision of the majority of this convention. I made the motion, I carried the protest of the violation of our code of ethics, and it has come to my attention that the investigation by this Committee was full and complete.

As I said yesterday no one has approached any one of our members as to our opinion concerning the action of the doctor who was appointed to that school. There has never in my heart been any portion of bitterness against any one at any time. I have always expressed my honest opinion, without any venom, but the point is that the doctor who is chairman of this committee is the president of the Board of Trustees of Lock Haven College. It has come to my attention that the chairman of this committee got the president of his college to write to the president of the college at West Chester, and that was the way the investigation was made. He was told that this gentleman takes care of sanitation, which is all right; that he takes care of health education, which is all right; and that he examines every student who enters that college when he goes to matriculate. But I know positively that there are 5 or 6 doctors around West Chester who examine those students at \$2.50 per hour. I know also that this gentleman is treating the faculty of that school, and it is a pretty generally accepted rumor, whether there is any foundation or not, that every pupil who comes to that school is assessed a certain amount—from \$5 to \$10—which takes care of his health in that school. Gentlemen, there are 1200 to 1500 students a year, which makes a pretty large sum, and this is not paid to the doctors.

QUESTION: How much does the doctor get?

JOHN A. FARRELL: I do not know positively, but I understand he gets \$4000 a year. This is not only State Medicine; it is contract practice within the definition of reasonable competition because before this doctor assumed the position he has, these 1200 or 1500 students were cared for by the regular physicians. I am not against this man's being there, but the one thing I have held dear through all my years in practice is living up to our code of ethics. If this man is within our code of ethics I am gratified, but I am not satisfied with this report.

I move a substitute motion, Mr. President, to the one that was made, that we continue this committee and have further investigation into the matter placed before us.

The motion was seconded by several.

MAURICE T. LEARY, Meadville: I wish to ask the Chairman of the Reference Committee to reread the recommendation, that part which pertains to what this House of Delegates shall do in backing up the protest of any component society against extension of such services beyond their legitimate purpose.

Dr. Brumbaugh reread as follows: "The Committee holds that this House of Delegates should support the protest of any component society against the extension of the activities of the agencies they reviewed beyond the legitimate purpose for which they were created but feels that each must first be considered as a component society problem with the use of the usual organizational machinery set-up for appeal."

MAURICE T. LEARY: That about expresses this matter. The question now under discussion pertains to Chester County and the West Chester Teachers' College. Why could this not be handled as the Committee of the Board of Trustees recommends? If Dr. Thomas is not satisfactory as a member of the Committee why not replace him? Lots of counties do not have this problem to contend with locally.

FRANCIS F. BORZELL, Philadelphia: It seems to me this is not a matter of geographical position. It is a matter of State institutions, and as a State Society I think it would be our duty to investigate the irregular use of State funds. It is quite conceivable that in the future it may be necessary to move this institution to some other place and I think this should be thoroughly investigated.

THOMAS R. CURRIE, Philadelphia: I think it should be referred back to the Committee and that they should further investigate the statements Dr. Farrell has made.

SECRETARY DONALDSON: The Committee in their report, as Dr. Leary has pointed out, expresses condemnation of every way in which the taxpayers' funds are being misspent, including the manner complained of in the West Chester instance. The physician Dr. Farrell complained of last year is not a member of the Chester County Medical Society nor of the State Society and, therefore, is not in the jurisdiction of this society.

SETH A. BRUMM, Philadelphia: The fact is that it is not a matter of state or county action; it is a matter of ethics. Any man who practices illegal medicine should be investigated. In this instance you have: first, a State institution; second, you have the State in the practice of medicine; third, you have a State institution employing a physician at a State salary; fourth, you have the collection of a sum that never goes to the proper place. The whole thing is wrong and it is not up to the local society. This goes back to whether we are going to coöperate with the Judicial Council of the great American Medical Association.

EDGAR S. BUYERS, Norristown: As chairman of the Board of Trustees, I am somewhat responsible for the personnel of this committee, and we appointed men who were known to have State Teachers' College within their districts. A detailed questionnaire was sent out by the committee which, I believe, was filled out in each instance and returned to the chairman. As I understand, in West Chester State Teachers' College the school physician is a State employee. He applied for membership in the Chester County Medical Society and was rejected. He is, therefore, not a member of organized medicine. I do not know how the State funds are allotted for such school medical service and I do not know how we can get at this. How can we go to a State Teachers' College and demand to see the school physician's contract? How can we go to this State employed doctor, not a member of our Society, and demand that we see his contract? We are perfectly willing to investigate this further but I do not see how it can be better done.

J. FRED WAGNER, Bristol: It seems to me this discussion is a little apart from the information Dr. Farrell wants, and that is a definition of contract practice under fair competition. I think if we are going to do anything to help the situation we should clear that up if possible.

JOHN A. FARRELL, West Chester: The point Dr. Wagner made is what I mean. I want a definition of contract practice within the meaning of reasonable competition, whether a man is a member of organized medicine or not.

SECRETARY DONALDSON: Fearing that some such discussion as this might arise I wrote last August to the American Medical Association, bringing again to their attention this very definition that is requested by Dr. Farrell, and I will read the communication I received in reply from the Chairman of the Judicial Council of the American Medical Association.

Aug. 27, 1934.

DEAR DOCTOR DONALDSON:

I note your letter of Aug. 22 with copy of a resolution asking "from the national officers and Board of Trustees of the American Medical Association, a definite and concrete decision as to *what represents contract practice within the meaning of reasonable competition.*"

There frequently have been demands on the Judicial Council to definitely define contract practice either in some of its phases or in its entirety, with the idea of establishing a pattern of contract which would be ethical.

The Judicial Council has consistently taken the position that no contract of an ethical nature can be drawn which is generally applicable and that the attempt to do so further would confuse the principles under which the contract would be unethical.

They repeatedly stated and so state in the recent edition of the Principles of Ethics that each contract should be considered on its own merits and in the light of surrounding conditions.

Situations in various parts of the country and the varying conditions in respect to each contract make it impossible to do justice to all in any other way.

It is further called to attention that the medical profession is not governed by laws with their specific statements as to what is and what is not right conduct, but the principles governing conduct are laid out.

Laws may be evaded or circumvented, but principles remain the same and it is the expectation that every professional man or body will be governed by the Principles of Ethics. To try to establish definite laws would only invite efforts at evasion.

The Judicial Council furthermore is not a legislative body but is a Judicial Court, and for the Judicial Council to assume to write laws or issue regulations which in effect would be laws would be usurping the prerogative of the House of Delegates and would very materially reduce its effectiveness in our medical organization as being both the legislator and the judge of medical policies.

Not infrequently there have been resolutions introduced into the House of Delegates being in effect laws concerning conduct of the members of the Association; but always such resolutions have failed of adoption by the House of Delegates as being unwise legislation, the feeling of the House being that the Principles of Ethics are all that the profession should depend upon in governing the conduct of its members and that it is impractical to do more than establish the principles.

I believe that, as result of the recent amendments to the Principles of Ethics, the subject of contract practice is fully covered as well as it can be and that each instance of contract practice can be satisfactorily judged by the provisions of that section.

(Signed) GEORGE EDWARD FOLLANSBEE, *Chairman,*
Judicial Council, American Medical Association.

Now I wish to remind the House of Delegates of how sincerely and understandingly this Committee of the Board of Trustees has studied this involved problem. As the Chairman of the Board of Trustees has pointed out, he appointed on that Committee men known to have these State institutions in their various localities, and I hope you will be sympathetic with the report of your Reference Committee on this report from the Board of Trustees. If not, then I feel almost like suggesting that the House of Delegates appoint a committee, with Dr. Farrell as chairman, to bring in a report next year.

THE PRESIDENT: Will Dr. Farrell restate his substitute motion so that every one may understand fully what is being voted upon.

JOHN A. FARRELL, West Chester: My present substitute motion is that a committee be appointed from the House of Delegates to continue this investigation and place the information before the 1935 House of Delegates.

This motion was then put to a vote and carried.

Dr. Brumbaugh then read the next section of his report.

REPORT OF COMMITTEE ON TELEPHONE CLASSIFICATIONS

This Committee reports amiable relations with the Bell Telephone Company and the abatement of a large number of illegal and incorrect directory listings.

I move the adoption of this report.

The motion was seconded by Leonard G. Redding, Scranton, and unanimously carried.

REPORT OF MEDICAL ADVISORY COMMITTEE TO THE STATE EMERGENCY RELIEF BOARD

This Committee reports harmonious function with the State Emergency Relief Board during a period of 8 months, with an average of 360,000 Pennsylvania families on relief at a cost of \$1,225,000 for medical service. Criticisms from both the medical profession and administrative officers are classified and commented on. It is apparent that while not now entirely satisfactory, conditions of public health and medical economics would have been much worse but for the efforts of this Committee. If the conviction of its members is well founded, "that due to continued unemployment, some permanent plan of relief will evolve therefrom," then is State Medicine not already with us and the Committee's recommendation of "studious consideration of this major problem" most timely?

Your Reference Committee concurs in this conclusion and recommends the continuance of the Advisory Committee.

I move the adoption of this recommendation.

The motion was seconded by Thomas R. Currie, Philadelphia, and carried.

The Schuylkill County Medical Society presents a resolution embodying a number of specific objections to the operations of the emergency medical relief set-up in their county. Your Reference Committee recognizes the justice of the complaints made but feels that the Medical Advisory Committee to the Emergency Relief Board, in its semi-official capacity, can more suitably deal with this and other objections arising than can this House of Delegates. Therefore, your Reference Committee moves that this resolution of the Schuylkill County Medical Society be referred to the Medical Advisory Committee to the State Emergency Relief Board.

I move the adoption of this resolution.

The motion was seconded by several and carried.

REPORT OF COMMITTEE ON WORKMEN'S COMPENSATION LAWS

The Committee on Workmen's Compensation presents a most excellent report that embodies recommendations for changes in Pennsylvania's existing workmen's compensation laws which cannot but meet the approval of every physician doing compensation medical work. Your Reference Committee is unanimous in its approval of all sections of this Committee's report and therefore moves its adoption as presented.

The motion was seconded by Francis A. Faught, Philadelphia, and carried.

INFORMAL REPORT OF WILLIAM H. MAYER

William H. Mayer of Allegheny County presents an unofficial report of an informal meeting of members of the Committees on Public Relations, Public Health Legislation, and Medical Economics of the various component county medical societies of the State. This meeting was held in Harrisburg, September 5. Although unofficial, it was the expression of opinion of 89 representatives from 41 of our component county societies. A declaration of policy was formulated at this meeting, dealing with practically every problem of medical economics and public health legislation. The action of this House of Delegates on the various committee reports already considered has been in conformity in practically every instance with this declaration of policy.

Therefore, your Reference Committee on New Business recommends the adoption of this declaration of policy as the policy of The Medical Society of the State of Pennsylvania.

I move that this recommendation be adopted.

The motion was seconded by Francis F. Borzell, Philadelphia, and unanimously carried.

THE PRESIDENT: I think it would be well to have the adoption of this report as a whole.

SETH A. BRUMM, Philadelphia, moved that the report be adopted as a whole.

The motion was seconded by Leonard G. Redding, Scranton, and unanimously carried.

GEORGE C. YEAGER, Philadelphia: We should commend and thank the members of these Reference Committees for their splendid work in preparation of these reports which have been so well received.

I move that a vote of thanks be given to the members of these Reference Committees.

The motion was seconded by J. Newton Hunsberger, Norristown, and unanimously carried.

THE PRESIDENT: As we have completed the business of this special meeting, the House of Delegates will now adjourn to meet in this room at 9 o'clock tomorrow morning.

The House of Delegates adjourned at 5:20 p.m.

MOSES BEHREND, *President*,

WALTER F. DONALDSON, *Secretary*,

HENRY G. MUNSON, *Assistant Secretary*.

Wednesday Morning, Oct. 3, 1934

The second regular meeting of the House of Delegates was called to order in the building of the Luzerne County Medical Society, Wilkes-Barre, on Wednesday, Oct. 3, 1934, at 9:10 a.m., by the president, Moses Behrend, Philadelphia.

THE PRESIDENT: I will ask Dr. Hunsberger whether we have a quorum at this time.

J. NEWTON HUNSBERGER, Norristown: Yes, Mr. President, we have.

THE PRESIDENT: We will come to order, gentlemen, and proceed with our regular order of business. The first item is the official roll call by our Secretary.

SECRETARY DONALDSON called the roll and announced that 97 delegates were present.

THE PRESIDENT: Will all delegates who have come in during roll call please register with the Credentials Committee immediately. The next order of business is nominations for president-elect.

CHARLES H. HENNINGER, Pittsburgh, nominated Alexander H. Colwell, Pittsburgh.

The nomination of Dr. Colwell was seconded by Thomas N. McKee, Kittanning.

JOHN J. BRENNAN, Scranton, moved that the nominations for president-elect be closed.

The motion was seconded by Charles F. Nassau, Philadelphia, and unanimously carried.

SETH A. BRUMM, Philadelphia, moved that Secretary Donaldson cast a unanimous ballot electing Dr. Colwell president-elect.

SECRETARY DONALDSON reported the ballot cast and President Behrend declared Dr. Colwell duly elected.

THE PRESIDENT: The next order of business is the nomination of 4 vice-presidents.

LEONARD G. REDDING, Scranton, nominated Peter P. Mayock, Wilkes-Barre, for first vice-president.

ARNO R. ZACK, Bethlehem, nominated W. Gilbert Tillman, Easton, for second vice-president.

OSCAR B. SNYDER, Greensburg, nominated Thomas St. Clair, Latrobe, for third vice-president.

WILTON H. ROBINSON, Pittsburgh, nominated Ward O. Wilson, Clearfield, for fourth vice-president.

FREDERICK S. BALDI, Philadelphia, moved that the nominations be closed and that the Secretary cast a unanimous ballot for these nominees.

The motion was seconded by Thomas R. Currie, Philadelphia, and unanimously carried.

SECRETARY DONALDSON reported the ballot cast for the 4 respective candidates, and President Behrend declared these gentlemen duly elected.

THE PRESIDENT: The next item of business is the election of a secretary. Do I hear any nominations?

FREDERICK S. BALDI, Philadelphia, moved that the President cast a unanimous ballot for Walter F. Donaldson for secretary.

The motion was seconded by several and unanimously carried.

THE PRESIDENT: It is with great pleasure that I cast the unanimous ballot reelecting our Secretary, who is one of the most efficient men with whom I have ever been associated. Dr. Donaldson has kept me informed during the past year of everything vitally connected with our Society, and I certainly appreciate his assistance.

I am greatly pleased to declare Dr. Donaldson duly elected to succeed himself.

The next item of business is the nomination of an assistant secretary.

LEONARD G. REDDING, Scranton, nominated Henry G. Munson, Philadelphia, and moved that the Secretary cast a unanimous ballot for Dr. Munson to succeed himself as assistant secretary.

SECRETARY DONALDSON reported the ballot cast and President Behrend declared Dr. Munson duly elected as assistant secretary.

THE PRESIDENT: The next item is the nomination and election of a treasurer.

EDWARD PARDOE, Johnstown, nominated John B. Lowman, Johnstown, to succeed himself as treasurer.

CURTIS C. MECHLING, Pittsburgh, moved that the nominations be closed and that the Secretary cast a unanimous ballot for Dr. Lowman.

The motion was seconded by Francis F. Borzell, Philadelphia, and unanimously carried.

SECRETARY DONALDSON reported the ballot cast and the President declared Dr. Lowman duly elected to succeed himself as treasurer.

THE PRESIDENT: The next order of business is the election of delegates, alternates-designate, and alternates-at-large to the American Medical Association.

SECRETARY DONALDSON: It is the duty of the Committee on Society Comity and Policy to make nominations for delegates, alternates-designate, and alternates-at-large to the American Medical Association. I wish to read the list of nominees prepared by our Committee on Society Comity and Policy.

Delegates: Arthur C. Morgan, Philadelphia; George L. Laverty, Harrisburg; Samuel P. Mengel, Wilkes-Barre; Walter F. Donaldson, Pittsburgh; J. Norman Henry, Philadelphia.

Alternates-Designate: Curtis C. Mechling, Pittsburgh; Samuel J. Waterworth, Clearfield; J. Treich-

ler Butz, Allentown; C. A. E. Codman, Philadelphia; John F. Culp, Harrisburg; William B. Odenatt, Philadelphia; William L. Benz, Blairsville; Herbert B. Gibby, Wilkes-Barre; Cloy G. Brumbaugh, Huntingdon; Arthur B. Fleming, Tamaqua; William H. Howell, Altoona.

Alternates-at-large: P. E. Biggins, Sharpsville; Lewis T. Buckman, Wilkes-Barre; James H. Corwin, Washington; Hamblen C. Eaton, Warren; Mark K. Gass, Sunbury; George Hay, Johnstown; Heister V. Hower, Berwick; W. Newton Long, York; Donald C. Richards, Easton; Milton M. Rosenberg, Scranton; Richard C. Travis, Reading.

THE PRESIDENT: What is your pleasure, gentlemen, regarding this report? Additional nominations may also be made from the floor.

CHARLES F. NASSAU, Philadelphia, moved that the report of the committee be accepted and that the Secretary cast a unanimous ballot for the nominees.

The motion was seconded by Frederick S. Baldi, Philadelphia, and unanimously carried.

The Secretary reported the ballot cast and the President declared these gentlemen duly elected.

THE PRESIDENT: The next order of business is the presentation of nominees for affiliate membership.

SECRETARY DONALDSON: I will read the names of candidates who have been nominated for affiliate membership by various component societies. The list is as follows:

Allegheny County: Charles A. Arnold, David B. Beggs, John M. Douthett, August J. Korhnak, Edward Perry Logan, Frank E. Luke, Albin Kerr Lyon, John F. McNeely, Frank Neely, Christian Nelson, Grant J. A. New, Harvey Edwin Ramsey, William K. Walker.

Dauphin County: Marion Ulrich, Harry B. Walter.

Erie County: A. G. Krum, George M. Studebaker.

Lackawanna County: Peter C. Manley.

Lehigh County: A. W. Hendricks.

Lycoming County: William H. Follmer.

Mercer County: Caroline J. Gilliland.

Montgomery County: Thomas F. Branson, Warren B. Shaner.

Montour County: George B. M. Free.

Northampton County: William L. Estes, Sr.

Philadelphia County: J. Wesley Anders, Frederick Eft, Albert D. Ferguson, Hugh Hanna, Edward Horgan, Joseph B. Potsdamer, Howard Reed, Robert D. Rhein.

Venango County: Fannie Davis.

York County: R. Warren Ramsey.

FREDERICK S. BALDI, Philadelphia, moved that these nominees be elected to affiliate membership.

The motion was seconded by Thomas R. Currie, Philadelphia, and unanimously carried.

THE PRESIDENT: The next order of business is the election of district censors as nominated by the component societies.

SECRETARY DONALDSON: I hold the list of nominees that have been submitted, one by each component society.

CHARLES F. NASSAU, Philadelphia, moved that the Secretary cast a unanimous ballot for the nominees for district censors.

EZRA A. WHITNEY, Elwyn, seconded the motion and it was unanimously carried.

The Secretary reported the ballot cast, and the President declared the following nominees duly elected:

DISTRICT CENSORS

FIRST COUNCILOR DISTRICT—Philadelphia County, W. Wayne Babcock, Philadelphia.

SECOND COUNCILOR DISTRICT—Berks County, Irvin H. Hartman, Reading; Bucks County, William G. Moyer, Quakertown; Chester County, John A. Farrell, West Chester; Delaware County, J. Clinton Starbuck, Media; Montgomery County, John T. MacDonald, Norristown; Schuylkill County, James A. Lessig, Schuylkill Haven.

THIRD COUNCILOR DISTRICT—Carbon County, Wilson P. Long, Weatherly; Lackawanna County, J. Norman White, Scranton; Lehigh County, George F. Seiberling, Allentown; Luzerne County, Herbert B. Gibby, Wilkes-Barre; Monroe County, J. Anson Singer, E. Stroudsburg; Northampton County, W. Gilbert Tillman, Easton; Wayne-Pike County, Arno C. Voigt, Hawley.

FOURTH COUNCILOR DISTRICT—Bradford County, George F. Richardson, Towanda; Columbia County, J. Elmer Shuman, Bloomsburg; Montour County, Horace V. Pike, Danville; Northumberland County, Charles M. Thomas, Sunbury; Susquehanna County, Franklin A. Stiles, Great Bend; Wyoming County, William W. Lazarus, Tunkhannock.

FIFTH COUNCILOR DISTRICT—Adams County, Eugene E. Elgin, East Berlin; Cumberland County, Edward R. Plank, Carlisle; Dauphin County, David S. Funk, Harrisburg; Franklin County, Ambrose W. Thrush, Chambersburg; Lancaster County, Walter J. Leaman, Leaman Place; Lebanon County, W. Horace Means, Lebanon; York County, John H. Bennett, York.

SIXTH COUNCILOR DISTRICT—Blair County, John B. Nason, Tyrone; Center County, James L. Seibert, Bellefonte; Clearfield County, William Edgar Reiley, Clearfield; Huntingdon County, Howard C. Frontz, Huntingdon; Juniata County, Isaac G. Headings, McAlisterville; Mifflin County, Robert T. Barnett, Lewistown; Perry County, Lenus A. Carl, Newport.

SEVENTH COUNCILOR DISTRICT—Clinton County, Saylor J. McChes, Lock Haven; Elk County, John C. McAllister, Ridgway; Lycoming County, Wesley F. Kunkle, Williamsport; Potter County, Elwin H. Ashcraft, Coudersport; Tioga County, Fannie U. Angelicola, Jackson Summit.

EIGHTH COUNCILOR DISTRICT—Crawford County, William H. Brennen, Meadville; Erie County, Orel N. Cbaffet, Erie; McKean County, Homer A. Wilson, Bradford; Mercer County, Patrick E. Biggins, Sharpsville; Warren County, Otis S. Brown, Warren.

NINTH COUNCILOR DISTRICT—Armstrong County, Thomas N. McKee, Kittanning; Butler County, Ralph W. Walker, Butler; Clarion County, Byron P. Walker, West Monterey; Indiana County, Medus M. Davis, Indiana; Jefferson County, William W. Carrier, Summerville; Venango County, Elmer L. Dickey, Oil City.

TENTH COUNCILOR DISTRICT—Allegheny County, David P. McCune, McKeesport; Beaver County, Milton L. McCandless, Rochester; Lawrence County, John Foster, New Castle; Westmoreland County, Thomas St. Clair, Latrobe.

ELEVENTH COUNCILOR DISTRICT—Bedford County, Dwight R. Sipes, Everett; Cambria County, John W. Barr, Johnstown; Fayette County, Robert H. Jeffery, Uniontown; Greene County, Thomas N. Millikin, Waynesburg; Somerset County, Charles J. Hemminger, Somerset; Washington County, James H. Corwin, Washington.

The President read that portion of the Call to the 1934 Session of the Society, on page 122 in the Handbook, relating to the election of Trustees and Councilors, and stated that nominations were open for Trustee and Councilor for the First and the Sixth Councilor Districts.

PAUL J. PONTIUS, Philadelphia, nominated George C. Yeager, Philadelphia, as Trustee and Councilor for the First District.

The nomination was seconded by Francis DeCaria, Bradford, who moved that the nominations be closed.

The motion was seconded by John J. Brennan, Scranton.

LEONARD G. REDDING, Scranton, moved that the Secretary cast a unanimous ballot for Dr. Yeager. The Secretary declared the ballot cast, and the President declared Dr. Yeager duly elected as Trustee and Councilor for the First District.

CLOY G. BRUMBAUGH, Huntingdon, nominated Augustus S. Kech, Altoona, to succeed himself as Trustee and Councilor for the Sixth District.

FRANCIS F. BORZELL, Philadelphia, seconded the nomination and moved that the nominations be closed and that the Secretary cast a unanimous ballot for Dr. Kech.

The motion was seconded by Charles J. Nassau, Philadelphia. The Secretary reported the ballot cast, and the President declared Dr. Kech duly elected as Trustee and Councilor for the Sixth District.

THE PRESIDENT: It gives me great pleasure now, gentlemen, to have our newly elected president-elect escorted to the platform, and I will ask Dr. Henninger and Dr. Brumm to find Dr. Colwell and bring him forward.

The president-elect was escorted to the platform and welcomed by President Behrend.

ALEXANDER H. COLWELL, Pittsburgh: Dr. Behrend, members of the House of Delegates, ladies and gentlemen: This is the most embarrassing moment of my life. I am acutely conscious of the very great honor you have conferred upon me, but this is modified somewhat by a real sense of humility when I consider how much the native abilities and past contributions to organized medicine of others make this office more properly theirs. Perhaps I can show my gratitude to you only by endeavoring in the future to sustain the high level of service which my predecessors in this office have always shown. I am deeply grateful.

THE PRESIDENT: Has the Board of Trustees any communication to the House of Delegates?

ROBERT L. ANDERSON, Pittsburgh: The Finance Committee of the Board of Trustees recommends that the per-capita tax be continued at \$7.50 annually.

SETH A. BRUMM, Philadelphia, moved that this recommendation be adopted.

The motion was seconded by several and carried.

THE PRESIDENT: The next order of business is the reading of correspondence by the Secretary.

SECRETARY DONALDSON: I have a communication, received yesterday, from the secretary of the American Medical Association, and wish to state briefly why this communication is received at this time. Last Saturday, Dr. Gannon, of Erie, the alert secretary of our Committee on Public Relations, wired me asking what information I had regarding a series of radio talks about to be inaugurated under the title, "Doctors, Dollars, and Disease." Having no such information, I at once wired Secretary West of the American Medical Association, and have received this reply from him:

Oct. 1, 1934.

DEAR DOCTOR DONALDSON:

Your telegram concerning the broadcasting program on "Doctors, Dollars, and Disease," has just been received and answered.

My information is to the effect that this program has been prepared under the personal direction of W. T. Foster, who was a member of the majority group of the Committee on the Costs of Medical Care and one of the speakers at the more or less famous Philadelphia meeting held some weeks ago. Mr. Foster addressed a letter to Dr. Walter L. Bierring, President of the American Medical Association, inviting him to be one of the speakers on the program. When Doctor Bierring looked over the complete list of speakers, he found that every one is already definitely committed to some program of sickness insurance. He refused to be a participant in the program on the ground that his would be nothing more than a voice in the wilderness. In so far as I am informed, Dr. Van Etten was not on the program as it was originally outlined. I take it that he has been selected as the one representative of the views of organized medicine.

As Secretary and General Manager of the American Medical Association, I received no communication whatever either from Mr. Foster or from the National Advisory Council on Radio in Education. We shall try to hear all that is said by the various speakers on Mr. Foster's program and it may be that some effort will be made to refute any statements that may be considered to be harmful to the interests of scientific medicine.

I sincerely hope that you are going to have a great meeting of The Medical Society of the State of Pennsylvania.

With most cordial good wishes, I am

Very truly yours,

(Signed) OLIN WEST, Secretary,
American Medical Association.

THE PRESIDENT: Does this require any action?

WILLIAM H. MAYER, Pittsburgh: The Committee on Public Relations at a meeting yesterday had this under consideration. We are going to make an effort to hear

all of their broadcasts. Later we will advise the county societies, and we ask for cooperation. We are dealing, no doubt, with a group of speakers who will present things in a very convincing manner.

THE PRESIDENT: Is there anything further, Mr. Secretary?

SECRETARY DONALDSON: I have a communication from the Luzerne County Unemployed League, Inc., as follows:

Sept. 28, 1934.

To the Convention of The Medical Society of the State of Pennsylvania:

GREETINGS:

The Unemployed League of Luzerne County wish to take this opportunity to welcome you all to Luzerne County.

We are an organization conducted purely and simply for the benefit of our fellowmen. We are the servants of Service and Justice, and are very much enthused with the proposed program of your convention.

By a record vote of our delegates, who represent a membership of 50,000 people, we are presenting to you resolutions that the Unemployed League are greatly interested in.

Our fight for social and humane matters of legislation must be won, and to this end we are appealing for the cooperation of the assembled delegates of your convention.

Respectfully submitted,

LUZERNE COUNTY UNEMPLOYED LEAGUE, INC.,
(Signed) ROBERT J. SMALLEY, Executive Secretary.

LUZERNE COUNTY UNEMPLOYED LEAGUE, INC.

To the Assembled Delegates of The Medical Society of the State of Pennsylvania, in Convention:

We, the members of the Luzerne County Unemployed League, Inc., are very much concerned with the trend of unemployment and its ravages. To you, The State Medical Society, we are appealing for your earnest and sincere consideration of the present-day ills. The convention that you are now enjoying is being closely observed by many of our people who realize the value of such a convention.

We are very much concerned, however, about the present system of hospitalization and the overcrowded conditions of our free clinics. The shameful part is that our doctors must continue to shoulder the burden and receive no compensation for their humane efforts. The waiting lists of our hospitals are forever increasing, and children of today must wait from 6 to 7 months before they can secure admittance for minor children's ailments. Clinics are overburdened with work, and the clients must wait hour after hour before they can secure service. This is entirely the fault of our legislature. The personnel of our hospitals can certainly be commended for their unflinching courtesy, and the ability to do practically the impossible to care for their case load.

Our local doctors have continuously shared the burden of the hospitals. Day after day they devote their time and talents to us, the unemployed people, and receive no remuneration for their unselfish efforts. And there are thousands of people who are receiving treatment from their doctors that nobody knows anything about. The red tape of the present system of the State Emergency Relief Board should be abolished, and a more adequate plan of medical attention made possible. In fact, Mr. Biddle, the Executive Director, has made the following statement to the Unemployed League over his signature:

"In accordance with the Federal Regulation No. 7 pertaining to Medical Relief, glasses are furnished to the wage-earner of the family. The physician is paid the usual fee for making the eye examination; and the prescription, when received at the State office, is filled by one of the leading manufacturers in the State of Pennsylvania. It would be a great pleasure to expand this program to care for the one million school children who, we know, have visual defects; but the present inadequacy of funds makes it impossible for us to do so."

What is to become of these children? Must they be neglected because the present plans of the Emergency Relief Board are not constructive? Something must be done or we shall do a terrible injustice to the coming generation.

We do not agree with the present system of caring for eye defects. Why not let the doctor, who makes the eye examination and realizes the type of glasses that are needed, give to the client the actual fitting of the glasses, instead of the present inadequate mail-order system of inferior fittings?

The American Hospital Association is on record, asserting that the care indigents, sick and injured is the responsibility of the State and Federal Government. We are in agreement with humane legislation, and will do all in our power to have the next General Assembly enact decent and adequate hospitalization bills. The hospitals must be given adequate funds to guarantee adequate and efficient service, and our doctors must be compensated for their humane and unselfish work at the clinics.

The Unemployed League has come to the realization that the present inadequacy of the food allowance can do only one thing to our people, and we must be ready to meet conditions of today.

Therefore, we are appealing to the convention of The Medical Society of the State of Pennsylvania to present to the next legislature resolutions requesting (1) adequate funds for our hospitals; (2) a more constructive plan to supply medical care for the unfortunate people; (3) more hospitals to be erected by

P. W. A. funds; (4) above all, that governmental assistance be granted to the various State clinics that are making a special study of children's ailments; and (5) that provision be made to compensate the local doctors.

We are positive of the fact that your convention has already made plans to try and make conditions secure, and to this end the Luzerne County Unemployed League, Inc., stand ever ready to do their share.

Respectfully submitted,

LUZERNE COUNTY UNEMPLOYED LEAGUE, INC.,
(Signed) ROBERT J. SMALLEY, *Executive Secretary*.

I would suggest that the House of Delegates approve of referring this communication jointly to the Medical Advisory Committee to the State Emergency Relief Board, and the Committee on Public Health Legislation.

ROBERT L. ANDERSON, Pittsburgh, moved that this action be taken.

The motion was seconded and carried.

THE PRESIDENT: The next order of business is the selection of our next place of meeting, and I will call on Chairman Feinberg for his Committee's report.

ALBERT R. FEINBERG, Wilkes-Barre: We have an invitation to meet in Harrisburg in 1935, and your Committee recommends that Harrisburg be our next convention city. I so move.

The motion was seconded by several and unanimously carried.

THE PRESIDENT: The next item is unfinished business.

SECRETARY DONALDSON: I have nothing further, Mr. President.

THE PRESIDENT: If there is no unfinished business we will proceed to new business. Has anyone anything to present at this time?

W. W. RICHARDSON, Mercer, presented the following resolution:

RESOLUTION

WHEREAS, The reduction of taxes and the abatement of excessive taxation is the aim of every good citizen, and

WHEREAS, The cost of tax collection is excessive in the Commonwealth of Pennsylvania in comparison with neighboring commonwealths; therefore, be it

Resolved, That the beginning of this reduction should begin with the reduction of this excessive cost of collection, and, be it further

Resolved, That the Mercer County Medical Society request its senator and representatives to make a special study of the cost of tax collection and to use their honest efforts to reduce this cost, and be it further

Resolved, That the Mercer County Medical Society instruct its delegates to introduce a similar resolution for the consideration of the House of Delegates at the State Society meeting at Wilkes-Barre the first week of October this year, and that they request the influence of the officers of the State Society and of each of its component county societies in this same movement.

SETH A. BRUMM, Philadelphia, moved that this communication be referred to the State Society Committee on Public Health Legislation.

The motion was seconded by Francis A. Faught, Philadelphia, and carried.

THE PRESIDENT: The next order of business is reports from our Reference Committees, if they have anything additional to their reports of yesterday.

The Chairmen of the Reference Committees had no additional reports.

THE PRESIDENT: I shall be glad to entertain a motion for a vote of thanks to the Luzerne County Medical Society for the use of their building.

PAUL J. PONTIUS, Philadelphia, moved that a vote of sincere thanks be extended to the Luzerne County Medical Society for their courtesy in this respect.

The motion was seconded by Ezra A. Whitney, Elwyn, and unanimously carried.

FRANCIS F. BORZELL, Philadelphia, moved that the House of Delegates congratulate the Luzerne County Medical Society, the third largest component Society of The Medical Society of the State of Pennsylvania, upon the possession of its magnificent library and splendid auditorium, housed in its own handsome building in the city of Wilkes-Barre, and express deep appreciation and gratitude to the Luzerne County Medical Society for their many courtesies, their fine entertainment, and their splendid arrangements provided for the benefit of our State Medical Society at its Eighty-fourth Annual Session.

The motion was seconded by William H. Mayer, Pittsburgh, and unanimously carried.

THE PRESIDENT: I am requested to announce that there will be a meeting of the Board of Trustees at 11 o'clock this morning at the Mallow-Sterling Hotel. Is there any further business? If not, I will declare the House of Delegates adjourned, *sine die*.

The House of Delegates adjourned at 10:30 a. m.

MOSES BEHREND, *President*,
WALTER F. DONALDSON, *Secretary*,
HENRY G. MUNSON, *Assistant Secretary*.

MINUTES OF THE GENERAL MEETINGS

Tuesday, Oct. 2, 1934

The first General Meeting convened at 10 o'clock Tuesday morning, Oct. 2, 1934, in the Auditorium, Irem Temple, Wilkes-Barre, the President, Donald Guthrie of Sayre, in the Chair.

THE PRESIDENT: The eighty-fourth annual session of The Medical Society of the State of Pennsylvania will please come to order. I will ask the audience to stand after the invocation while Dr. Robert G. Barkley, Chairman of the Necrology Committee, makes his report. Dr. F. L. Flinchbaugh, rector of St. Stephen's Episcopal Church, Wilkes-Barre, will now pronounce the invocation.

INVOCATION

Almighty God, our heavenly Father, as we come into Thy presence to seek Thy blessing and inspiration, we pray that we may come not only in humility and with simple words, but with hearts attuned to Thy spirit and responsive to Thy grace. Thou art the light of the minds that know Thee, the joy of the hearts that love Thee, the power of the wills that obey Thee. Help us to love Thee—and to know Thee is to love Thee—that we may do Thy will and thus have full companionship and fellowship with Thee.

We invoke Thy blessing, heavenly Father, upon this great society of physicians gathered here. They are co-workers with Thee in the upbuilding, the strengthening, and the healing of the bodies and souls of men. Increase in them, we pray Thee, their consciousness of oneness with Thee, and their privilege of working together with Thee in relieving the sick and the suffering and the curing of the ills of the body. We thank Thee for the sacrificial, Christlike spirit of service that moves the great profession of medicine, and we pray Thee that in all their deliberations here this week they may be inspired and directed by Thee, and that all that shall be done shall tend to increase their skill and success in promoting the happiness and health of those to whom they minister.

This we ask in the name of him who is the Great Physician of the souls of men, who came into this world not to be ministered unto but to minister, Thy Son, our Saviour, Jesus Christ. Amen.

REPORT OF COMMITTEE ON NECROLOGY

It is the regretful duty of your Committee on Necrology to announce that during the past year our Society has lost by death 152 members. This constitutes a great loss to our profession. These members have given their lives to the service of humanity, sacrificing themselves to the suffering and afflicted, never questioning. When duty called it was theirs to obey.

The names of those deceased members have been recorded monthly in the PENNSYLVANIA MEDICAL JOURNAL, also in the Annual Roster of the Society, so will not be included in this report.

We honor their memory, and would emulate their devotion to our glorious profession. Let us take heed and do our work in such a way as to receive the commendation of Him who said, "They may rest from their labors, and their works do follow them."

THE PRESIDENT: Will the audience please stand in silence for one minute as a tribute to the memory of these departed members.

(The audience remained standing in silence for one minute.)

THE PRESIDENT: It is our very good fortune to be honored by the presence of the Chief Executive of this great city. I take great pleasure in presenting the Honorable Charles N. Loveland, Mayor of the City of Wilkes-Barre, who will address us.

ADDRESS OF WELCOME

Mr. President, Members and Friends of the Association: It is a very great honor to the City of Wilkes-Barre to have a group such as this choose our city as their meeting place. The city is bound to benefit by such a gathering. We realize this. In the short time that I have acted as Mayor I have greeted numbers of bodies here, but I have never greeted a body of such size or of such interest to me. I just want to tell a story of something that happened a few years ago. One summer as we were visiting together, my college roommate propounded this proposition: "In your experience of nearly forty years out of college, what in your judgment is the group of men who are doing the most for the happiness and welfare of humanity?" Without really stopping to think, I said, "The medical profession." This is not throwing bouquets, but in trying to think afterwards why I said it, I believe it was because in this building some years ago a convention was held which I attended as a visitor and got a vision of the things that the leaders of the medical profession are trying to do. Perhaps, also, it might have been because I have a daughter who chose to go into occupational therapy work, and who, having a vision of what could be done, organized this department at our General Hospital. She is now married and has children but still carries on work of this sort in Boston. Where it is brought close to one, he is bound to have a changed attitude. I immediately began to have more interest in hospitals and I have had the great privilege of acting on the executive committee of our General Hospital. I have seen the struggles and efforts made by the doctors to serve the community, especially during the years of the depression, and I have understood more clearly the problems that confront the men who are trying to better health conditions and serve the community in the hospital in this department. Even in the years of depression we have been able to initiate 2 or

3 new clinics which were needed—in spite of the depression and in spite of deficits which were faced. These things must be done and we have tried our best to carry them out. As a city executive I think I have also realized what the Kirby Health Center across the street may mean. It is a beautiful building and back of that building is an idea which is really only just starting to have its effect on our community, but much more will be accomplished by the carrying out of that wonderful plan. Mistakes are made, but it is only by our mistakes that we grow.

I want to say a few words to show you that our city administration is friendly to you and is glad to have you here. We have greeted you with the mountains in their most beautiful dress at this season of the year, and we have prepared for you a new building (just dedicated) to help house you. It is not entirely for your profession, but we are glad it is here to help you. We shall try during your stay to make it just as comfortable for you as possible.

If any of you by any chance—sometimes these things happen through lack of knowledge—get into trouble with the complicated traffic and parking organization and regulations, I hope you will take it up with your officers and we shall do for you anything within reason that can be done. I thank you.

THE PRESIDENT: Thank you very much, Mayor Loveland. We will now hear an address of welcome by Dr. Edward W. Bixby, President of the Luzerne County Medical Society:

ADDRESS OF WELCOME

Members of The Medical Society of the State of Pennsylvania: As President of the Luzerne County Medical Society it gives me a great deal of pleasure to welcome this convention to Wilkes-Barre. It has been 34 years, we are ashamed to say, since the last convention was held in this city. We hope it will not be so long again, and we hope that after this convention is over you will want to return at some later date. I am sure, from what the Mayor has said, that you can not get into trouble if you try; you own the city. The members of the Luzerne County Medical Society will do everything possible, individually and collectively, to make this meeting interesting and to give you a good time. We hope the entertainment which has been planned will be amusing and enjoyable. The scientific program, of course, is of its usual high excellence. We also commend to your attention the technical exhibit, which is in the basement of this building. The scientific exhibit, upon which a great deal of work has been expended, is divided between the basement of this building, back of the technical exhibit, and the Kirby Health Center. The exhibit has been planned so that it correlates with the scientific program. We hope that it will be of especial interest to each physician and that each one will find something in which he is particularly interested.

I should like very much to take this opportunity to thank every member of the Luzerne County Medical Society for the fine spirit of coöperation which he has shown in preparation for your coming. I should thank especially Dr. Mayock, Chairman of the local Committee on Arrangements, and Dr. Luchi, Chairman of the Committee on Scientific Exhibit; also all of the committee chairmen who have done so much preliminary work in trying to make this meeting a success.

Again, I want to say that it is a source of great pleasure to the Luzerne County Medical Society to have you with us. We welcome you sincerely and hope you will have a pleasant and profitable visit.

THE PRESIDENT: We will now listen to the presentation of the Scientific Program by Dr. Richard A. Kern, Chairman of the Committee on Scientific Work.

PRESENTATION OF SCIENTIFIC PROGRAM

Mr. President, Honored Guests, Members of the Society: In arranging the program for the Wilkes-Barre meeting the Committee on Scientific Work has had as its guiding principle "the greatest good for the greatest number." We have avoided joint sessions between the different scientific sections or prolonged symposia on restricted topics in order that the number of papers and the diversity of subjects presented should be as large as possible. The speakers have been chosen not only with a view to their knowledge and experience in their particular fields but also with a view to their ability to present that knowledge. With equal care discussers have been selected who will give a carefully prepared opinion based on a study of the paper in advance of the meeting. In each case the speakers who come to us from all parts of the land are men whose scientific attainments have gained for them international reputations. Without mentioning all of them I would refer simply to 2 who will speak before the General Meetings. In the last 5 years the 10 guest speakers before the General Meetings have been either surgeons or internists. This year there is a slight departure from that custom. The guest speaker tomorrow morning will be Dr. Frederick C. Holden, emeritus professor of obstetrics and gynecology, New York University, and Bellevue Hospital Medical College, who will speak on the subject, "Why Women Die in Childbirth." On Thursday morning the guest speaker will be Dr. George W. McCoy of the United States Public Health Service, who is a Director of the National Institute of Health, the most important single unit, I believe, in our Federal health program. The Committee, therefore, is confident you will find in the program an abundance of practical, timely, and interesting subjects.

As you have heard, the Scientific Exhibit in many instances correlates with subjects presented in the various scientific meetings, and therefore offers opportunity for further leisurely study and amplification of the subjects. Without meaning in the slightest to steal the thunder of the next speaker, but for fear the natural modesty of Dr. Luchi may deter him from saying so, let me say that the Scientific Exhibit this year is beyond doubt the best that has ever been presented before the State Society. As in previous years the program consists of general sessions which are held in the mornings and meetings of the special sections in the afternoons. The general sessions will be held in this room, and let me remind you that the session tomorrow morning begins promptly at 9 o'clock. The Section on Medicine will meet each afternoon, also in this room. The surgeons, in keeping with their own modest estimate of themselves as the "best people on earth," will hold their meetings around the corner in the Elks' building. The Eye, Ear, Nose and Throat Section will hold its sessions in the ballroom of the Mallow-Sterling Hotel. The pediatricians, possibly with an ulterior motive as regards future practice, will foregather just across the street in the auditorium of the Young Woman's Christian Association, on the second floor. The Section on Dermatology will look at this subject in Room C of the Mallow-Sterling Hotel, and the urologists will meet in the Kirby Health Center, diagonally across the street.

At this point let me express to all the members of the Committee on Scientific Work my sincere thanks and appreciation of their diligent work and constant efforts

throughout the year. And on behalf of the Committee allow me to express our thanks to our General Secretary, Dr. Donaldson, who throughout the year has been to us a constant source of inspiration.

I have another thought. Will those of you who plan to read or discuss papers please remember that in your hands lies the ultimate success of this meeting. You can insure that success by attention to 2 points: First, strict observance of the time limit imposed upon you; second, be sure that everyone in the room can hear you. If you make a point of directing your remarks constantly to the man in the last row and if you see an occasional flicker of intelligence on his face, then you know you are getting your paper across.

THE PRESIDENT: The doctor now wishes to retract the brutal things he said about the surgeons.

I share very heartily, ladies and gentlemen, in Dr. Kern's belief that this present scientific session will be a banner one; and the entire credit, as a matter of fact, belongs to its enthusiastic Chairman, who is one of the most indefatigable workers I have ever met. I take very great pleasure in introducing Dr. Angelo L. Luchi, Chairman of the Committee on Scientific Exhibit.

ANNOUNCEMENT OF SCIENTIFIC EXHIBIT

Mr. President, Honored Guests, Ladies and Gentlemen: Dr. Kern very graciously said that the Scientific Exhibit of the 1934 session is certainly the best, but I feel that its quality, its excellence, is not so much due to the work of the Chairman as to the generous response of the exhibitors throughout Pennsylvania, New York, New Jersey, Ohio, Massachusetts, and other states. The Exhibit numbers 111 contributions, and I should like to mention the 114th. It is not listed on the program as it came after the program went to press. The exhibit is that of the Lankenau Hospital.

The degree of excellence of the Exhibit is equal to the standard set at Philadelphia last year. The best introduction to the Scientific Exhibit is a perusal of the official program. I shall mention only the group exhibits, which are located on the ground floor and in the solarium in the Kirby Health Center, because they are an innovation and because they were inspired by President Guthrie's program of postgraduate education. They will give interested visitors an opportunity for intensive and complete review of the subjects portrayed.

I wish to call attention to Exhibit 45, in Room 215, second floor, Kirby Health Center. That exhibit is composed of 22 divisions. Hourly demonstrations will be given by very well-known men. I ask you to read again that part of the program and visit that particular room, because I am sure everyone will find at least 1 or 2 topics of great interest.

The motion picture program began this morning at 9 o'clock and will continue through Thursday afternoon. Only noncommercial medical films will be shown.

Please visit the Exhibit and ask questions. The advantage of the exhibits is that you may ask questions; indeed, the demonstrators are very eager to have you do so. If you have any difficulty in locating some of the exhibits please come to the desk of the Chairman and he will be only too glad to help you.

After visiting the exhibits please phone or write home to your medical friends and tell them to come here tomorrow or the next day as we have a very profitable exhibition.

In closing I want to thank President Guthrie for his tremendous help. Without adulation I may state that if it had not been for his help the Scientific Exhibit would certainly not be what it is today. I want to thank the

State Committee on Scientific Exhibit for their confidence and the Local Committee for their coöperation. It has been a great help.

THE PRESIDENT: Ladies and Gentlemen: I have the permission of the officers of the Inter-State Post-Graduate Assembly to announce the meeting to be held in Philadelphia, November 5 to 9. Those of you who have attended these meetings know the high excellence of their program. I have just reviewed the program for the coming meeting, and I think you will share with me in the belief that this year's Post-Graduate Assembly will be even better than the very excellent ones they have held in the past. In the City of Philadelphia, November 5 to 9.

We will now listen to the announcement of the entertainments, which will be made by Dr. Peter P. Mayock, General Chairman of the Local Committee on Arrangements.

ANNOUNCEMENT OF ENTERTAINMENTS

Mr. President, Honored Guests, Ladies and Gentlemen: At the outset I wish to thank my Society and my Committee for the wonderful coöperation they have given me in making these arrangements. The loyalty of my Society has been something I shall never forget. Every man has been most loyal. It happens that these arrangements are not committee or one-man arrangements but are arrangements by the whole Society because they all coöperated.

You will find the entertainments outlined on page 46 of the official program. Those of you who attended the golf tournament yesterday at Fox Hill will have some idea of the entertainment we have in store for you in the next few days. We have followed the program of former years with some slight deviation.

I want to call to your attention that today, Tuesday, at 12:30 o'clock, Dr. Luchi's committee of about 45 or 50 are entertaining the scientific exhibitors at luncheon at the Westmoreland Club. That is an innovation, and a very happy one. Tonight at 7 o'clock we give our party; the Luzerne County Medical Society will be host to the State Society. This affair will take place in the Armory on South Main Street, 4 or 5 blocks down from the Square. Through the courtesy of General Motors there will be a fleet of Chevrolet cars at your disposal, and the chauffeurs will be glad to transport you anywhere you want to go. Tonight you may use that privilege. Be sure to come to our party tonight.

The Woman's Auxiliary have arranged their entertainment for visiting ladies. The women members of the State Society will be entertained by the women members of the Luzerne County Medical Society at the Victoria, on South Franklin Street. Our entertainers will go there from the Armory. We are most anxious that every member in Wilkes-Barre this evening shall attend the smoker at the Armory or the dinner at the Victoria. Both are scheduled for 7 o'clock.

On Wednesday we shall have another innovation. There will be a luncheon at the Wilkes-Barre General Hospital and at the Mercy Hospital for the ex-interns of those institutions. At 6 o'clock alumni dinners have been arranged. You may obtain tickets at the official registration desk.

At 8 o'clock to-morrow evening, the Public Meeting will be held in this Auditorium. It will be addressed by Dr. Howard W. Haggard, associate professor of applied physiology, Yale Medical School. The subject will be "Progress of Medicine." I am sure that meeting will be a very fine one. The Auditorium is

large and we are anxious to have a large audience. Dr. Meyers is Chairman of that committee, and I am extending to you, for him, a cordial invitation to attend the meeting.

At 9:30 o'clock the President's Reception and Dance will take place in the ballroom of the Mallow-Sterling.

That practically completes our program of entertainments. There is no question but that we will have a wonderful scientific program, and we hope you will attend faithfully. We know it will prove profitable. I hope your stay here will be enjoyable, and I also hope that you will carry back home with you many pleasant memories of your visit to Wilkes-Barre. I thank you.

THE PRESIDENT: Ladies and Gentlemen: It is now my pleasant duty to call upon the delegates and representatives of other societies. Are there any delegates from any medical societies other than Pennsylvania present in the room? If not, I have the pleasure of calling upon Dr. John H. Corcoran, representing the Pennsylvania State Dental Society.

JOHN H. CORCORAN: Mr. President, Ladies and Gentlemen: I have been delegated by the Pennsylvania State Dental Society to extend to the members of The Medical Society of the State of Pennsylvania official greetings and congratulations, with expressions of great scientific and economic interest, on the occasion of your 84th annual session. You have our best wishes for a very successful meeting. We are quite sure it will be an inspiration to greater achievements in the line of health service. I thank you.

THE PRESIDENT: It is now my pleasure to call upon the representative of the Pennsylvania Pharmaceutical Association, Dr. Frank S. Koronkiewicz.

FRANK S. KORONKIEWICZ: Mr. Chairman, Honored Guests, Ladies and Gentlemen of the Medical Profession: In baseball vernacular, I am just a pinch-hitter for our State President, Col. Frank Kelly, and it is my pleasant duty to extend the felicitations of the Pennsylvania Pharmaceutical Association to this body. Recently the druggists of our Association gathered at their 57th annual convention, which proved to be a great success. We know that this, your 84th annual convention, will be a most enjoyable and instructive affair.

I might at this time call your attention to Booth No. 63 of the Scientific Exhibit located in the Kirby Health Center, which is sponsored by the Luzerne County Pharmaceutical Association. In this exhibit we have featured 5 groups of official therapeutic agents from the Pharmacopeia of the United States and the National Formulary.

In closing, I hope you will enjoy your stay in Wilkes-Barre and return to your various communities with opportunity to write a lot of prescriptions. I thank you.

THE PRESIDENT: The Secretary, Dr. Donaldson, has an announcement to make.

SECRETARY DONALDSON: I wish to call your attention to the necessity of turning in your railroad tickets at the registration desk. Unless we have at least 100 turned in, none of us will benefit by a reduction in return fare.

I am also requested to announce a meeting of the Public Relations Committee and the Committee on Public Health Legislation, to be held on the mezzanine floor of the Mallow-Sterling, in the room reserved for the Board of Trustees, immediately after this meeting adjourns.

I wish to remind the delegates present of the special meeting this afternoon in the Luzerne County Medical Society building at 4 o'clock, and urge you to be very prompt so that we may conclude our business with dispatch, as there are important meetings at 5 o'clock which should be attended by a number of our officers and delegates.

I have here further evidence of the warm-hearted spirit of this Wilkes-Barre welcome. This is a telegram addressed to our State Society:

Greetings and welcome to Wilkes-Barre. May your stay be pleasant. May you benefit socially and intellectually, and when you depart may you bear with you happy memories of the people and institutions of Wilkes-Barre and the Wyoming Valley.

WILKES-BARRE AND WYOMING VALLEY MERCHANTS ASSOCIATION.

Now, Mr. President: It is an annual custom that the Board of Trustees of this State Society shall present to the retiring President a token of their appreciation for his services and their respect for the type of service he has rendered. I have asked the privilege of making the presentation this year, Mr. President, in the name of the Board of Trustees and in the name of the members of the Society. I have asked the privilege for this reason: Shortly before the first Armistice Day, November 11, 1918, our State Medical Society which met in Philadelphia elected to the Board of Trustees the man who serves us today as President, and at the same time honored me by electing me Secretary of the Society. Today we are about to see the official passing from the Board of Trustees of the one member who joined that group with me 16 years ago.

I want to tell you, in a few words, of the degree of service that has been rendered to this Society by Dr. Guthrie. You all know where he lives, away up on the New York State line, and to reach Harrisburg, where most of the meetings of the Board are held, he has traveled at night, by rail, to Allentown, changing cars for Lancaster, and changing there for Harrisburg. He has kept that up faithfully in the service of the State Society for 16 years, and I did not want this opportunity to pass without your being reminded of that phase of his service.

President Guthrie, it must be a most happy occasion for you to be able to preside over this organization's meeting in the home city of your distinguished father, who served our Society as President in 1899, and I assure you that the Board of Trustees has never presented this symbol of authority and respect with more sincerity of feeling than they do on this occasion.

PRESIDENT GUTHRIE: Fellow members, Ladies and Gentlemen: I am naturally very happy, indeed, to accept this gavel through Dr. Donaldson, our diligent Secretary; and in the last analysis, in my humble opinion, Dr. Donaldson personifies the Pennsylvania State Medical Society. I wish I could tell you the joy I have had in working with him during all these years for the good of this Society. I naturally shall treasure this gavel as one of my most prized possessions, because it shall ever remind me of the loyalty and support received in a thrilling year which I shall never forget. Having served the Society continuously as one of its officers for all these years, I cannot be blamed for being devoted to it and to its best interests.

I pledge you, Sir, that I shall ever remain one of its most loyal and enthusiastic supporters.

Now, Ladies and Gentlemen, it is my pleasure to induct Dr. Behrend into office. Dr. Behrend, I congratulate you very heartily upon this honor and wish you every success during your term of administration. You and I have been referred to as "the two Napoleons."

I want to tell you of the assistance you have been to me, and how I appreciate your unselfish efforts. Surely the welfare and good of this organization shall be safe under your guidance. Good luck to you!

MOSES BEHREND: I thank you.

The President then read his address, which was published in the October, 1934, issue of the PENNSYLVANIA MEDICAL JOURNAL.

PRESIDENT BEHREND: If there is no further business the meeting will stand adjourned.

MOSES BEHREND, *President*,
WALTER F. DONALDSON, *Secretary*.

Wednesday, Oct. 3, 1934

The second General Meeting was called to order at 9:15 a.m., Richard A. Kern, Philadelphia, Chairman of the Committee on Scientific Work, presiding.

Isaac Starr, Jr., Philadelphia, read a paper entitled "Conservative Treatment of Vascular Spasm in Peripheral Vascular Disease." There was no discussion.

Eugene P. Pendergrass, Philadelphia, read a paper entitled "Development of Roentgen and Radium Therapy"; discussed by William J. Corcoran, Old Forge.

John M. Johnston, Pittsburgh, read a paper entitled "Critical Review of Therapy in Pneumococcus Pneumonia"; discussed by Harold W. Jones, Philadelphia.

George M. Coates, Philadelphia, read a paper entitled "Middle Ear Suppuration in Relation to the Practice of Medicine"; discussed by Frederic S. Huntington, Scranton, and George M. Coates.

Roy Ross Snowden, Pittsburgh, read a paper entitled "Medical Care of the Aged"; discussed by Charles Falkowsky, Jr., Scranton.

Floyd E. Keene, Philadelphia, read a paper entitled "Interpretation of Irregular Genital Bleeding During the Menopause"; discussed by John A. McGlinn, Philadelphia.

Frederick C. Holden, New York (Guest), read a paper entitled "Why Women Die in Childbirth—Some of the Reasons and Remedies."

The Wednesday morning meeting adjourned.

RICHARD A. KERN, *Chairman*,
HENRY G. MUNSON, *Asst. Secretary*.

Thursday, Oct. 4, 1934

The third General Meeting was called to order at 9:15 a.m., Richard A. Kern presiding.

Burgess Lee Gordon, Jr., Philadelphia, read a paper entitled "Diagnosis and Treatment of Nontuberculous Pulmonary Disease"; discussed by Ross K. Childerhose, Allenwood, and Burgess Lee Gordon, Jr.

James M. Strang, Pittsburgh, read a paper entitled "Observations on Metabolism and Treatment of Undernutrition"; discussed by Stanley D. Conklin, Sayre.

Charles C. Wolferth, Philadelphia, read a paper entitled "Treatment of Angina Pectoris"; discussed by Charles H. Miner, Wilkes-Barre.

Detlev W. Bronk, Philadelphia (by invitation), read a paper entitled "Hypertension and the Control of Blood Pressure."

Earl D. Bond, Philadelphia, read a paper entitled "Management of Convalescent Children"; discussed by J. Allen Jackson, Danville.

John O. Bower, Philadelphia, read the "Report of State Society Committee on Appendicitis Mortality"; discussed by Joseph P. Replogle, Johnstown.

George W. McCoy, Washington, D. C. (Guest), read a paper entitled "Research Work of the National Institute of Health."

The Thursday morning session adjourned.

RICHARD A. KERN, *Chairman*.

MINUTES OF THE SECTION ON MEDICINE

Tuesday, Oct. 2, 1934

The Section on Medicine convened in the Auditorium of Irem Temple, Wilkes-Barre, at 2 p.m., and was called to order by Chairman Carl E. Ervin, Danville.

In the period from 2 to 2:55 p.m., the following papers were presented: "Biochemistry in Clinical Medicine, from the Standpoint of the General Practitioner," by George Morris Piersol, Philadelphia, and Walter Karr, Philadelphia (by invitation); "Blood Pictures in Infections, from the Standpoint of the General Practitioner," by Max M. Strumia, Bryn Mawr (by invitation).

These papers were discussed by Frank A. Evans, Pittsburgh; Walter Karr, Philadelphia; Fred O. Zillessen, Sunbury; and Robert T. Devereux, West Chester.

In the period from 3 to 3:55 p.m., the following paper was presented: "Psychiatry, from the Standpoint of the General Practitioner," by C. Macfie Campbell, Boston, Mass. (guest).

This paper was not discussed.

In the period from 4 to 5 p.m., the following papers were presented: "Inheritance and Disease," by Joseph H. Barach, Pittsburgh; "Treatment of Peripheral Vascular Disease by Means of Alternate Negative and Positive Pressure," by Eugene M. Landis, Philadelphia; "Infection of the Lung with *Actinomyces Graminis*, Case Report," by Walter K. Baer, Lancaster; Roland N. Klemmer, Lancaster; and Lena A. Lewis, Lancaster (by invitation); "Three Cases of High Blood Calcium Followed Over a Number of Years," by Joseph S. Brown, Lewistown.

These papers were discussed by Augustus S. Kech, Altoona; and Lewis H. Hitzrot, Philadelphia.

The Section adjourned at 5 p.m.

Wednesday, Oct. 3, 1934

The Section on Medicine convened in the Auditorium of Irem Temple, Wilkes-Barre, at 2 p.m., and was called to order by Chairman Carl E. Ervin, Danville.

In the period from 2 to 3 p.m., the following papers were presented: "Weight Reduction and the Dinitro Compounds," by Edward L. Bortz, Philadelphia; Anthony Sindoni, Jr., Philadelphia; and Miss Ethel May Hobson, Philadelphia (by invitation); "Seventy-three Cases of Hyperthyroidism Treated by Irradiation," by James J. Quiney, Easton; "Results of Roentgen-ray Therapy in the Treatment of Hyperthyroidism,"* by John T. Farrell, Jr., Philadelphia.

These papers were discussed by Walter M. Bortz, Greensburg; Miss Ethel May Hobson, Philadelphia; M. G. Wohl, Philadelphia; Edward L. Bortz, Philadelphia; Byron H. Jackson,* Scranton; William Donovan, Scranton; William A. Bradshaw,* Pittsburgh; and James J. Quiney, Easton.

* (NOTE. Dr. Farrell's paper, which was scheduled in the Official Program distributed to those registering at Wilkes-Barre, was inadvertently omitted from the Scientific Program as published in the AUGUST PENNSYLVANIA MEDICAL JOURNAL, as were also the names of Drs. Jackson and Bradshaw appointed to open the discussion on same.)

In the period from 3 to 3:55 p.m., the following paper was presented: "Clinical Management of Patients Before and After Total Ablation of the Thyroid for Chronic Heart Disease," by Herrmann L. Blumgart, Boston, Mass. (guest).

This paper was discussed by Harold L. Foss, Danville.

In the period from 4 to 5 p.m., the following papers were presented: "Hypertension Simulating Hyperthyroidism," by Ronald L. Hamilton, Sayre, and Albert P. Knight, Sayre (by invitation); "Venous Pressure. Its Clinical Importance, with a Simplified Technic for its Determination by the Direct Method," by William G. Leaman, Jr., Philadelphia; "The Preclimptic Woman," by Frederick B. Utley, Pittsburgh.

These papers were discussed by Harold L. Tonkin, Williamsport; M. G. Wohl, Philadelphia; Howard G. Schleiter, Pittsburgh; and P. Brooke Bland, Philadelphia.

The Section adjourned at 5 p.m.

Thursday, Oct. 4, 1934

The Section on Medicine convened in the Auditorium of Irem Temple, Wilkes-Barre, at 1:30 p.m., and was called to order by Chairman Carl E. Ervin, Danville.

The Chairman presented the following recommendations from the Executive Committee for officers for the ensuing year: Chairman, William D. Stroud, Philadelphia; Secretary, Edward W. Bixby, Wilkes-Barre. Upon motion of Dr. C. L. Johnson, regularly seconded and carried, the recommendations of the Executive Committee were approved and Drs. Stroud and Bixby were unanimously elected.

In the period from 1:30 to 3:30 p.m., the following papers were presented: "Further Observations on Granulocytopenia," by George J. Kastlin, Pittsburgh; "Repeated Blood Sugar Determination in Certain Cases of Diabetes," by Edward P. Griffiths, Etna; "Arthritis of the Spine," by Sydney J. Hawley, Danville; "Diagnosis and Modern Treatment of Amebiasis," by John A. Kolmer, Philadelphia; "Summary of Present Day Endocrinology for the Practitioner," by Robert Denison, Harrisburg.

These papers were discussed by Bernard J. McCloskey, Johnstown; Edwin B. Rentschler, Reading; Edward P. Griffiths, Etna; Byron Jackson, Scranton; Daniel F. Daley, Kingston; Leo H. Crip, Pittsburgh; William D. Stroud, Philadelphia; and Robert Denison, Harrisburg.

The chairman expressed his appreciation to those who had participated in the program and declared the Section adjourned at 3:30 p.m., *sine die*.

CARL E. ERVIN, *Chairman*,

WILLIAM D. STROUD, *Secretary*.

Members Registered in Section on Medicine

ADAMS COUNTY SOCIETY.—Edgar A. Miller, Gettysburg.

† ALLEGHENY COUNTY SOCIETY.—Joseph H. Barach, A. J. Bruecken, William A. Bradshaw, Alexander H. Colwell, Mortimer Cohen, Leo H. Crip, Walter F. Donaldson, Frank A. Evans, Edward P. Griffiths, Etna; John H. Heintzelman, C. H. Henninger, Carl C. Hoffman, John M. Johnston, George J. Kastlin, W. N. Marshall, W. R. Marshall, Aspinwall; Franklin W. Mathewson, Oakdale; William H. Mayer, W. P. McCorkle, John F. McCullough, Gilbert B. Meyers, John A. O'Donnell, C. L. Palmer, H. G. Schleiter, Joseph Shilen, H. M. Sigal, R. R. Snowden, James M. Strang.

† Where no address is given, Pittsburgh is indicated.

W. L. Thunhurst, Wilkesburg; Frederick B. Utley, Max H. Weinberg.

ARMSTRONG COUNTY SOCIETY.—John B. F. Wyant, Kittanning; T. Craig McKee, Kittanning.

BEAVER COUNTY SOCIETY.—F. B. Wilson, Ruth W. Wilson, Beaver.

BERKS COUNTY SOCIETY.—Robert M. Alexander, Abner H. Bauscher, H. P. Brunner, Norman W. Elton, Le Roy W. Frederick, Reading; Ralph L. Hill, Wernersville; William F. Krick, C. K. Kistler, Henry D. Kunkel, Reading; Frank P. Lytle, Birdsboro; Edwin B. Rentschler, Reading; L. R. Rothermel, Shillington; Ira G. Shoemaker, Harold L. Strause, Richard C. Travis, Reading.

BLAIR COUNTY SOCIETY.—William Robert Brewer, Altoona; A. S. Kech, Altoona; John O. Prosser, Hollidaysburg.

BRADFORD COUNTY SOCIETY.—A. J. Bird, New Albany; Stanley D. Conklin, Sayre; C. Melvin Coon, Athens; H. C. Down, Towanda; Ronald L. Hamilton, Sayre; Edmund T. Lentz, Wyalusing; M. S. Martin, Dushore; Charles Reed, Towanda.

BUCKS COUNTY SOCIETY.—H. P. Feigley, Quakertown.

BUTLER COUNTY SOCIETY.—W. J. Armstrong, Butler.

CAMBRIA COUNTY SOCIETY.—Bernard McCloskey, Johnstown.

CARBON COUNTY SOCIETY.—Ira E. Freyman, Weatherly; John J. Quinn, Lansford.

CENTER COUNTY SOCIETY.—Paul M. Corman, Bellefonte; P. H. Dale, Grover C. Glenn, State College; Richard H. Hoffman, Bellefonte; Clara B. Owens, State College.

CHESTER COUNTY SOCIETY.—John A. Farrell, I. Pemberton P. Hollingsworth, West Chester; Michael Margolies, Coatesville; Joseph Scattergood, William T. Sharpless, West Chester.

CLEARFIELD COUNTY SOCIETY.—H. A. Blair, Curwensville; W. S. Bryan, Ramey.

COLUMBIA COUNTY SOCIETY.—C. K. Albertson, Benton; L. E. Baker, Espy; H. S. Buckingham, H. V. Hower, E. A. Marquand, Berwick; Roland F. Wear, Berwick; Charles B. Yost, Bloomsburg.

CRAWFORD COUNTY SOCIETY.—H. H. Walker, Linesville.

CUMBERLAND COUNTY SOCIETY.—Chloe O. Fry, Newville; S. Dana Sutliff, Shippensburg.

DAUPHIN COUNTY SOCIETY.—Julius H. Anderson, Harrisburg; J. E. Bogar, Millersburg; Robert Denison, David S. Funk, David Joseph Hetrick, John B. McAlister, George R. Moffitt, Harrisburg; H. C. Myers, Steelton; James N. O'Brien, H. K. Petry, C. R. Phillips, R. E. Pilgram, William C. Sandy, Harrisburg.

DELAWARE COUNTY SOCIETY.—Thomas A. Johnson, Drexel Hill; H. E. Orndoff, Glen Riddle; Richard Owen, Prospect Park; J. Clinton Starbuck, Media; E. A. Whitney, Elwyn.

ELK COUNTY SOCIETY.—Norman R. Benner, Johnstown.

ERIE COUNTY SOCIETY.—George A. Reed, Elmer G. Shelley, James D. Stark, Erie.

FAYETTE COUNTY SOCIETY.—E. Russell Ingraham, Masontown; L. Dale Johnson, Connellsville.

FRANKLIN COUNTY SOCIETY.—Frank J. Corbett, Fayetteville.

GREENE COUNTY SOCIETY.—W. S. Frankenburger, Carmichaels.

HUNTINGDON COUNTY SOCIETY.—Charles R. Reiners, Huntingdon.

INDIANA COUNTY SOCIETY.—A. H. Stewart, Indiana.

JEFFERSON COUNTY SOCIETY.—W. A. Hill, J. Gardner Kearney, Reynoldsville.

LACKAWANNA COUNTY SOCIETY.—John J. Bendick, Olyphant; John J. Brennan, Nellie M. Brown, Aaron S. Cantor, Scranton; Joseph A. Carr, Olyphant; Emlyn T. Davies, Old Forge; Frederic B. Davies, Arthur E. Davis, William T. Davis, W. M. Donovan, E. L. Dimmick, D. Webster Evans, Charles Falkowsky, Jr., Robert J. Flynn, J. H. Foy, M. J. Goldstein, Rose S. Greenberg, Scranton; A. E. Hager, Taylor; E. L. Kiesel, Scranton; Walter P. Knight, Throop; H. M. Kraemer, J. Kulczycki, Kathryn R. Lavin, James D. Lewis, Scranton; R. J. Lloyd, Olyphant; J. J. Lonsdorf, Scranton; P. C. McAndrew, Childs; P. J. McDonnell, Scranton; J. J. Malinowski, Dickson City; John E. Manley, Peter C. Manley, Clyde L. Mattas, Louis A. Milkman, Scranton; Leslie E. Morgan, Dickson City; S. J. Morris, William A. Murray, Scranton; W. H. Newman, Clarks Summit; J. J. O'Connor, Olyphant; Martin T. O'Malley, W. A. Peck, Paul F. Polentz, Scranton; J. J. Price, Olyphant; James L. Rea, Jr., Scranton; Thomas A. Rutherford, Clarks Summit; R. C. Shepherd, M. J. Stec, F. W. Stevens, John E. Swift, Scranton; H. E. Peter Vale, Jessup; F. R. Wheelock, John D. Wilson, Scranton.

LANCASTER COUNTY SOCIETY.—Walter K. Baer, Walter D. Blankenship, D. E. Cary, Frank G. Hartman, S. M. Hauck, Harold K. Hogg, Roland N. Klenner, Harvey H. Seiple, John S. Simons, S. S. Simons, Lancaster.

LEHIGH COUNTY SOCIETY.—J. Treichler Butz, A. C. Gallagher, Allentown; John H. Hennemuth, Emaus; G. H. Kelchner, Hope M. Ritter, Eugene V. Robertson, William J. Schatz, Thomas L. Smyth, Vaughan Sprenkel, Allentown.

LUZERNE COUNTY SOCIETY.—G. E. Baker, Forty Fort; Delbert Barney, Wilkes-Barre; A. A. Barton, Plains; Olive T. Baskett, Retreat; Albert M. Biederman, Pittston; R. M. Bierly, Pittston; Edward M. Bixby, Lovisa I. Blair, Wilkes-Barre; James W. Boyle, Luzerne; M. L. Briggs, Shickshinny; G. F. Burkhardt, W. S. Carter, Hazelton; A. J. Cawley, Pittston; G. A. Clark, Wilkes-Barre; R. N. Clark, Kingston; Donald F. Closterman, Forty Fort; Xavier K. Collmann, Wilkes-Barre; Benjamin B. Cook, Fern Glen; James A. Corrigan, Hazelton; John W. Cressler, Wilkes-Barre; H. W. Croop, D. F. Daley, Kingston; Dominic D'Angelo, Hazelton; William J. Davis, Alexander H. Dean, Wilkes-Barre; Louis A. Dessen, Hazelton; Boyd Dodson, Wilkes-Barre; Edward S. Dougherty, Ashley; Albin J. Drapiewski, Scranton; J. A. Drapiewski, Nanticoke; John M. Dyson, Hazelton; V. P. Edwards, Edwardsville; Albert R. Feinberg, G. N. Fluegel, Wilkes-Barre; Samuel French, Plymouth; Alfred W. Friedman, Wilkes-Barre; Charles M. Gallagher, Ashley; John F. Giering, Wilkes-Barre; William L. Grala, Hazelton; M. E. Griffith, Wilkes-Barre; C. C. Groblewski, Plymouth; Malcolm C. Guthrie, Kingston; R. J. Hangen, Ashley; D. A. Hart, Wapwallopen; Almon C. Hazlett, Wyoming; Edward M. Hill, Pittston; J. F. Hoffman, Exeter; John A. Hugo, I. Humphrey, Nanticoke; Jesse P. Janjigian, Robert R. Janjigian, Forty Fort; Robert T. Jones, Plymouth; Albert Kaufman, Wilkes-Barre; Seth B. Kistler, Seth W. Kistler, Nanticoke; Walter Kistler, Wilkes-Barre; F. B. Kleintob, Wyoming; J. C. Koheczynski, Hazelton; Frank

J. Kosek, F. J. Krajewski, Wilkes-Barre; M. H. Kudlich, James A. Kutz, Hazelton; Charles Long, Julian S. Long, Wilkes-Barre; James A. Longo, Sheppton; A. L. Luchi, Wilkes-Barre; A. V. Lupcho, Glen Lyon; L. S. Luppold, White Haven; T. V. McLaughlin, James J. McMahon, Leonard D. Marinaro, Edward E. Marsh, Wilkes-Barre; R. D. Martin, Nanticoke; E. W. Meixell, Wilkes-Barre; A. J. Merva, Nanticoke; Frank H. Miller, McAdoo; Charles H. Miner, Wilkes-Barre; John H. Molinelli, West Pittston; M. A. Murray, Wilkes-Barre; Henry P. O'Connell, Ashley; John F. Osler, Hazelton; Herman Popkey, Wilkes-Barre; P. E. Ringawa, Nanticoke; A. F. Riofski, Wilkes-Barre; D. G. Robinhold, Forty Fort; Lewis L. Rogers, Nathaniel Ross, Wilkes-Barre; Ulrich D. Rumbaugh, Kingston; S. R. Schooley, Shavertown; H. L. Shemanski, J. G. Silewski, Nanticoke; Donald C. Smith, Wilkes-Barre; I. R. Smith, Nanticoke; R. A. Stevens, Kingston; W. C. Stiff, Plymouth; Peter Straub, Wilkes-Barre; George K. Swartz, Dallas; George W. Taggart, Hazelton; Roy Truckenmiller, Freeland; Albert J. Valibus, Edwardsville; M. J. Van Horn, Townhill; L. J. Vercusky, Freeland; F. C. Wagenseller, Wapwallopen; Earl E. Wagner, Thomas J. Wenner, J. T. Williams, Wilkes-Barre; John W. Woehrl, Parsons; Robert S. Woehrl, Wilkes-Barre; Edward I. Wolfe, Forty Fort; Sarah D. Wyckoff, Wilkes-Barre.

LYCOMING COUNTY SOCIETY.—Louis E. Audet, W. S. Brenholtz, John A. Campbell, Galen D. Castlebury, Williamsport; Ross K. Childerhose, Allenwood; George R. Drick, Williamsport; Edward Everett, Dushore; I. T. Gilmore, Picture Rocks; A. C. Haas, A. C. Lamade, Williamsport; F. C. Lechner, Montoursville; J. Louis Mansuy, Ralston; G. Walter Muffy, Turbotville; A. V. Persing, Watontown; A. V. Persing, Jr., Allenwood; J. S. Purnell, Mifflinburg; Lee R. Ranck, Milton; Clarence E. Shaw, H. L. Tonkin, Williamsport; R. B. Tule, Milton; W. E. Turner, Montgomery; W. W. Wilcox, Montoursville.

McKEAN COUNTY SOCIETY.—Francis DeCaria, Bradford.

MERCER COUNTY SOCIETY.—P. E. Biggins, Sharpsville; J. D. Hoffman, Grove City; H. G. Mensch, Sandy Lake; W. W. Richardson, Mercer.

MIFFLIN COUNTY SOCIETY.—J. S. Brown, Lewistown; P. E. Whiffen, McClure.

MONROE COUNTY SOCIETY.—Harold B. Flagler, Stroudsburg; David F. Kohn, Mt. Pocono; Charles A. LeCates, Tannersville; W. R. Levering, P. H. Shiffer, J. Anson Singer, Stroudsburg; D. C. Trach, Kresgeville.

MONTGOMERY COUNTY SOCIETY.—Edgar S. Buyers, Norristown; John Eiman, Bala-Cynwyd; Annie R. Elliott, Albert R. Garner, B. F. Hubley, Norristown; Howard W. Hassell, Bridgeport; J. Newton Hunsberger, A. G. Kershner, Norristown; Philip J. Lukens, Ambler; James J. McShea, Norristown; Elwood T. Quinn, Jenkintown; James A. Shelly, Ambler; Walter J. Stein, Ardmore; J. Quincy Thomas, Conshohocken; John G. Wilson, Norristown; W. J. Wright, Skippack.

MONTGOMERY COUNTY SOCIETY.—John A. Bolich, Milton; L. R. Chamberlain, C. E. Ervin, Sydney J. Hawley, J. Allen Jackson, Danville; C. L. Johnston, Catawissa; Horace V. Pike, C. Schultz, Danville.

NORTHAMPTON COUNTY SOCIETY.—C. E. Beck, Portland; J. E. Brackbill, Bangor; J. E. Brown, Hellertown; J. A. Fetherolf, Stockertown; A. S. Fox, Carl Gaines, Easton; William J. Happel, Nazareth; Jacob

Kincov, James J. Quiney, Theodore Reichbaum, Frederick C. Roberts, Easton; E. S. Rosenberry, Stone Church; H. A. Rothrock, Jr., Bethlehem; W. Gilbert Tillman, Easton.

NORTHUMBERLAND COUNTY SOCIETY.—Roy B. Bast, Kulpmont; A. B. Buczek, Mt. Carmel; W. Howard Eister, Sunbury; C. Reed Gennaria, Shamokin; W. J. Jacoby, William A. Lustusky, Mt. Carmel; Robert B. McCay, Sunbury; Chester A. Marsh, Selinsgrove; H. H. Peril, Shamokin; C. W. Rice, Northumberland; E. Roger Samuel, Mt. Carmel.

† PHILADELPHIA COUNTY SOCIETY.—John H. Arnett, Theodore F. Bach, Frederick S. Baldi, Joseph T. Beardwood, Jr., Nathan Blumberg, H. L. Bockus, Earl D. Bond, Edward L. Bortz, Raymond W. Brust, Frank Walton Burge, Michael A. Burns, Andrew Callahan, J. A. Clarke, Jr., C. D. Daniels, Ernest J. Dewees, Charles W. Dunn, John T. Farrell, Jr., Francis A. Faught, S. F. Gilpin, Harold L. Goldburgh, Burgess L. Gordon, Benjamin A. Gouley, Frederick E. Haentze, Stanley E. Harris, J. Norman Henry, Lewis H. Hitzrot, Arthur H. Hopkins, H. L. Jameson, M. J. Karples, Isadore Kaufman, Richard A. Kern, John A. Kolmer, Bala-Cynwyd; Frank W. Konzelmann, David W. Kramer, Frank H. Krusen, Eugene M. Landis, Wm. G. Leaman, Charles F. Long, Francis D. W. Lukens, Frank B. Lynch, Jr., B. B. Vincent Lyon, James W. McConnell, Thomas M. McMillan, Donald Macfarlan, Ardmore; LeRoy M. A. Maeder, Alex Margolies, John R. S. Martin, David R. Meranze, Hugh McC. Miller, T. Grier Miller, Narberth; Henry K. Mohler, Matthew T. Moore, Arthur C. Morgan, John A. Murphy, David Nathan, W. Burrill Odenatt, Clarence A. Patten, Eugene P. Pendergrass, M. F. Percival, George Morris Piersol, Elsie Treichler Reedy, Robert P. Regester, Stanley P. Reimann, Harold F. Robertson, Wm. Egbert Robertson, Alexander Silverstein, Anthony Sindoni, Jr., Isaac Starr, Jr., I. P. Strittmatter, William D. Stroud, Wm. A. Swalm, J. Ray Van Meter, Elkins Park; John A. Wagnetz, Miriam Warner, James J. Waygood, E. M. Weinberger, John H. Willard, H. B. Wilmer, Michael G. Wohl, Charles C. Wolferth, George C. Yeager.

SCHUYLKILL COUNTY SOCIETY.—W. A. Breslin, Shenandoah; C. S. Burke, Mahanoy City; J. Spencer Callen, Shenandoah; J. Stratton Carpenter, Henry Dirschedl, Wm. Dzurek, Pottsville; Marvin R. Evans, Coaldale; Ivor D. Fenton, Mahanoy City; Arthur B. Fleming, Tamaqua; W. R. Glenney, Pottsville; Christian Gruhler, Shenandoah; Joseph G. Kramer, Pottsville; H. A. Price, Port Carbon; Leo E. Pulaski, Shenandoah; J. A. Radzievich, Minersville; Joseph Ricchiuti, Mahanoy City.

TIoga COUNTY SOCIETY.—J. H. Doane, Mansfield.

WARREN COUNTY SOCIETY.—Ira A. Darling, Hamblen C. Eaton, Warren.

WASHINGTON COUNTY SOCIETY.—J. O. Arnold, David Beveridge, Washington; E. W. Mahan, West Alexander; L. D. Sargent, Washington.

WAYNE-PIKE COUNTY SOCIETY.—H. W. Koch, Louis B. Nielson, Honesdale; Hugh Stevenson, Waymart; Arno C. Voight, Hawley.

WESTMORELAND COUNTY SOCIETY.—C. D. Ambrose, Ligonier; John S. Anderson, Walter M. Bortz, Greensburg; R. E. L. McCormick, Irwin; S. W. Nealon, Thomas St. Clair, Latrobe; Wm. H. Taylor, Irwin.

† Where no address is given, Philadelphia is indicated.

WYOMING COUNTY SOCIETY.—Wm. W. Lazarus, Tunkhannock.

YORK COUNTY SOCIETY.—W. C. Langston, P. A. Noll, York; N. Allen Overmiller, East Prospect; H. M. Read, York.

MINUTES OF THE SECTION ON SURGERY

Tuesday, Oct. 2, 1934

The Section on Surgery convened in the Ballroom of the Elks' Home, Wilkes-Barre, Tuesday, Oct. 2, 1934, at 2:00 p.m., and was called to order by the Chairman of the Section, Samuel J. Waterworth, Clearfield.

A paper entitled "Management of Occiput Posterior Position" was read by Roy E. Nicodemus, Danville, and discussed by Professor Erwin Zweifel of the University of Munich, Germany, who was introduced by P. Brooke Bland, Philadelphia, and extended the privileges of the floor. Dr. Bland by way of introduction said: "We are exceedingly fortunate in having as a guest today an international figure in obstetrics and gynecology. His talents, I think, are hereditary, because his father for a period of 39 years was professor of obstetrics and gynecology in the University of Leipzig, Germany. His clinic was the mecca for students from all parts of the world, many of whom later became masters. I count it a great pleasure, honor, and privilege to present to you and to our Society, Professor Erwin Zweifel of the University of Munich, Germany."

A paper entitled "An Analysis of 145 Consecutive Cases of Ectopic Pregnancy, with Special Emphasis on Diagnosis" was presented by David B. Ludwig, Pittsburgh, and discussed by P. Brooke Bland, Philadelphia.

A guest of the Society, Jerome P. Wehster, New York City, presented a paper entitled "Deforming Scars: Causes, Prevention, and Treatment" (lantern demonstration).

A paper entitled "Comparison of the Operative and Nonoperative Methods in the Treatment of Hemorrhoids" (lantern demonstration) was read by Martin S. Kleckner, Allentown, and discussed by Frank G. Runyeon, Reading.

A paper entitled "Erosion of Bone in the Neighborhood of Internal Auditory Canal Due to Neoplasm" (lantern demonstration) by Wilbur Bailey and Nicholas Gotten, Philadelphia, was read by Dr. Bailey and discussed by Temple S. Fay and Eugene P. Pendergrass, Philadelphia.

A paper entitled "Indications for Blood Transfusion, with Special Reference to Technic" was read by Alan P. Parker, Philadelphia, and discussed by William P. Belk, Ardmore.

Adjournment at 5:20 p.m.

Wednesday, Oct. 3, 1934

The Section on Surgery reconvened at 2:15 p.m., Wednesday, Oct. 3, 1934, Samuel J. Waterworth, Chairman, presiding.

Holland H. Donaldson, Pittsburgh, presented the report of the Nominating Committee, nominating for Chairman of the Section on Surgery for the ensuing year Edward J. Klopp, Philadelphia; and for Secretary, George W. Hawk, Sayre. Upon motion, duly seconded and carried, these officers were declared elected.

Holland H. Donaldson, Pittsburgh, presented a paper entitled "An Analysis of 2700 Cases of Acute Appendicitis," which was discussed by Eldridge L. Eliason, Philadelphia, and John W. Dixon, Pittsburgh.

George W. Hawk, Sayre, read a paper entitled "Indications for Enterostomy, with Special Reference to Technic" (lantern demonstration). This paper was discussed by Harold L. Foss, Danville.

J. Shelton Horsley, Richmond, Va., a guest of the Society, presented a paper entitled "Diagnosis and Treatment of Cancer of the Large Bowel" (lantern demonstration).

A paper entitled "Preoperative and Postoperative Care of the Jaundiced Patient" was read by Hubley R. Owen, Philadelphia. The President of the Society, Moses Behrend, Philadelphia, was presented, and Dr. Owen's paper was discussed by Dr. Behrend and S. Dana Weeder, Philadelphia.

A paper entitled "Surgical Treatment of Pharyngeal Diverticulum by the Combined One-Stage Method" (lantern demonstration) was read by Thomas A. Shallow, Philadelphia, and discussed by Louis H. Clerf, Philadelphia.

Temple S. Fay, Philadelphia, presented a paper entitled "Important Early Signs in the Localization and Diagnosis of Spinal Cord Tumors" (lantern demonstration). This was discussed by Arthur E. Davis, Scranton.

The Session adjourned at 5:30 p.m.

Thursday, Oct. 4, 1934

The Section on Surgery reconvened at 1:35 p.m., Samuel J. Waterworth, Chairman, presiding.

A paper entitled "Fractures and Dislocations in the Region of the Elbow" (lantern demonstration) was read by Voigt Mooney, Pittsburgh, and discussed by H. Alexander Smith, Wilkes-Barre.

Thomas A. Outland, Sayre, presented a paper on "Treatment of Fractures of the Body of the Calcaneum" (lantern demonstration), which was discussed by Paul R. Sieber, Pittsburgh.

A paper entitled "Treatment of Fractures of the Pelvis and Complications with Motion Picture Demonstration of Operation for the Repair of Rupture of the Urethra" was presented by Grover C. Weil, Pittsburgh, and discussed by Arthur G. Davis, Erie.

A paper entitled "Simple Fractures of the Shaft of the Femur" was read by Samuel P. Mengel, Wilkes-Barre, and discussed by Hubley R. Owen, Philadelphia, with lantern demonstration.

A paper entitled "Treatment of Fractures of Both Bones of the Forearm" (roentgen-ray screen demonstration) was presented by John Howorth, Wilkes-Barre, and discussed by Anatole Desjardins, Wilkes-Barre.

A paper on "Treatment of Fractures of the Spine" (lantern demonstration) was presented by Arthur G. Davis, Erie, and discussed by H. Alexander Smith, Wilkes-Barre; and Grover C. Weil, Pittsburgh.

The session adjourned at 4:45 p.m., after the Chairman had thanked the Secretary for the excellent program and expressed appreciation for the splendid attendance.

SAMUEL J. WATERWORTH, *Chairman*,
JOHN P. GRIFFITH, *Secretary*.

Members Registered in Section on Surgery

*ALLEGHENY COUNTY MEDICAL SOCIETY.—J. W. Dixon, Wilkesburg; H. H. Donaldson, Charles G. Eicher, McKees Rocks; J. W. Fredette, John P. Griffith, J. P. Henry, Carnegie; L. H. Landon, David B. Ludwig, H. E. McGuire, Curtis C. Mechling, Voigt Mooney, Wilton H. Robinson, John W. Shirer, Paul R. Sieber, Paul B. Steele, Grover C. Weil.

* Where no address is given, Pittsburgh is indicated.

BEDFORD COUNTY MEDICAL SOCIETY.—D. R. Sipes, Everett.

BERKS COUNTY MEDICAL SOCIETY.—Edward C. Edgerton, W. D. Griesemer, Howard M. Leinbach, Reading; Albert E. J. Lohmann, Shillington; Earl W. Rothermel, F. G. Runyeon, Reading.

BLAIR COUNTY MEDICAL SOCIETY.—Joseph D. Findley, W. H. Howell, Francis I. Taylor, Altoona.

BRADFORD COUNTY MEDICAL SOCIETY.—Donald Guthrie, George W. Hawk, Tom Outland, Sayre; John M. Touhey, Towanda.

BUCKS COUNTY MEDICAL SOCIETY.—J. Fred Wagner, Bristol.

CAMBRIA COUNTY MEDICAL SOCIETY.—Martin E. Back, J. B. Lowman, Edward Pardoe, Jos. P. Repogle, Johnstown.

CARBON COUNTY MEDICAL SOCIETY.—R. P. Batchelor, Palmerton.

CENTER COUNTY MEDICAL SOCIETY.—L. D. Locke, Bellefonte.

CHESTER COUNTY MEDICAL SOCIETY.—C. P. Kistler, West Chester.

CLEARFIELD COUNTY MEDICAL SOCIETY.—Austin C. Lynn, Philipsburg; S. J. Waterworth, Ward O. Wilson, Clearfield.

CLINTON COUNTY MEDICAL SOCIETY.—Frank P. Dwyer, Renovo; Henry G. Hager, T. E. Teah, David W. Thomas, Lock Haven.

COLUMBIA COUNTY MEDICAL SOCIETY.—John W. Bruner, Bloomsburg; F. R. Clark, Berwick; C. M. Hower, J. S. John, Bloomsburg; Ambrose Shuman, Catawissa.

CRAWFORD COUNTY MEDICAL SOCIETY.—Wm. H. Brennan, O. H. Jackson, J. C. McFate, Meadville.

DAUPHIN COUNTY MEDICAL SOCIETY.—Samuel B. Fluke, S. S. Landis, George L. Laverty, Harrisburg; E. K. Lawson, Penbrook; E. A. Nicodemus, Harrisburg; H. A. Shaffer, Williamstown; Harvey F. Smith, George B. Stull, Frederick L. Van Sickle, Harrisburg.

DELAWARE COUNTY MEDICAL SOCIETY.—John J. Brennan, Drexel Hill; John O. Crist, Chester; Paul S. Seabold, John J. Sweeney, Upper Darby.

ELK COUNTY MEDICAL SOCIETY.—Augustine C. Luhr, St. Marys.

ERIE COUNTY MEDICAL SOCIETY.—Clayton W. Fortune, Frank P. McCarthy, Kenneth S. Treiber, Joseph M. Walsh, Erie.

FAYETTE COUNTY MEDICAL SOCIETY.—A. E. Crow, Uniontown; D. C. Fosselman, Connellsville.

HUNTINGDON COUNTY MEDICAL SOCIETY.—C. G. Brumbaugh, Howard C. Frontz, Huntingdon.

JEFFERSON COUNTY MEDICAL SOCIETY.—F. A. Lorenzo, Punxsutawney.

LACKAWANNA COUNTY MEDICAL SOCIETY.—Harry W. Albertson, Scranton; Desmond M. Bailey, Carbondale; W. J. Barrett, Jessup; Harold B. Cooper, Benjamin J. Cottone, Wm. Rowland Davies, Scranton; Lewis C. Druffner, Avoca; E. E. Edwards, Taylor; M. B. Finneran, Carbondale; R. J. Garvey, Louis H. Gibbs, Scranton; Ulrich P. Horger, Helen Houser, Taylor; Thomas G. Killen, Scranton; J. W. Lyons, Jessup; Wm. J. McHugh, J. O. MacLean, Scranton; John T. Murphy, Olyphant; John S. Niles, Carbondale; M. J. Noone, Walter W. Propst, E. H. Rebhorn, J. Frank Reddington, W. A. Redel, Scranton; Richard D. Roderrick, Jermy; John W. Scheuer, A. W. Smith, C. H. Spalletta, Charles E. Thomson, Jr., Scranton; Ralph J. Touch, Carbondale; E. N. Van Dyke, J. Norman

White, J. William White, Albert J. Winebrake, Scranton.

LANCASTER COUNTY MEDICAL SOCIETY.—John L. Atlee, Jr., Lancaster; Francis S. Chambers, Elizabethtown; S. G. Pontius, Ross Proctor, Page M. Schildnecht, Isaac S. Simons, Lancaster.

LEHIGH COUNTY MEDICAL SOCIETY.—John J. Bernhard, Frank S. Boyer, Allentown; H. E. Guth, Orefield; Martin S. Kleckner, Maurice W. Miller, Allentown; C. H. Muschlitz, Slatington; John W. Noble, Allentown.

LUZERNE COUNTY MEDICAL SOCIETY.—Maurice B. Ahlborn, Wilkes-Barre; Bernard S. Androsky, Pittston; Charles L. Ashley, Plymouth; E. C. Bahnmiller, Wilkes-Barre; J. R. Beaver, Pittston; C. E. Bennett, Nanticoke; W. R. A. Boben, Allan C. Brooks, Wilkes-Barre; H. A. Brown, Lehman; L. M. Cattanch, Wilkes-Barre; Frank J. Conlon, Pittston; John F. Connole, J. A. Corson, E. A. Costello, Wilkes-Barre; S. M. Davenport, J. A. G. Davis, Jr., Kingston; H. W. Deibel, Wilkes-Barre; H. W. Dodson, Nanticoke; F. E. Donnelly, Wilkes-Barre; George B. Dornblaser, Hazleton; J. P. Dougherty, Ashley; W. J. Doyle, Wilkes-Barre; G. R. Drake, Plymouth; Lewis Edwards, Kingston; James L. English, Pittston; Charles H. Ernst, Wilkes-Barre; H. Irvin Evans, Ashley; H. A. Fischer, Jr., H. Ward Fisher, Stanley L. Freeman, Wilkes-Barre; A. H. Gabriel, Plymouth; R. A. Gaughan, Hazleton; Albert G. Gibbs, Nanticoke; H. B. Gibby, J. P. Gilligan, Wilkes-Barre; Emil Gribosky, Kingston; O. K. Grier, Wilkes-Barre; B. Franklin Griffith, A. W. Grover, Kingston; Morton W. Groves, Wilkes-Barre; Frank B. Gryczka, Kingston; H. Gordon Guyler, F. R. Hanlon, Joseph M. Harrigan, Wilkes-Barre; Philip E. Hertz, Luzerne; Fred W. Heyer, Nanticoke; Chales J. Higgs, Wilkes-Barre; G. L. Howell, Trucksville; John Howorth, Wilkes-Barre; M. Clark Johnson, Kingston; Louis W. Jones, Wilkes-Barre; C. A. Judge, Forty Fort; Eugene M. Kelley, Pittston; J. W. Kirschner, Luzerne; D. S. Kistler, Wilkes-Barre; Jos. J. Kocyan, Plains; F. J. Krych, Forty Fort; John L. Lavin, Wilkes-Barre; Hugh J. Lenahan, Pittston; Edward L. McGinley, Wilkes-Barre; B. J. McGuire, Pittston; John J. McHugh, P. F. McHugh, P. A. McLaughlin, J. Carpenter McNalis, Wilkes-Barre; R. L. Mantione, Pittston; S. P. Mengel, Wilkes-Barre; I. C. Morgan, Nanticoke; Philip Morgan, Kingston; Leo C. Mundy, Wilkes-Barre; Michael J. Murphy, F. A. Muschlitz, Pittston; C. F. Netzel, Plymouth; C. W. Prevost, Pittston; Frank M. Pugliese, Wilkes-Barre; James A. Pyne, Wyoming; F. W. Roberts, Plymouth; Marshall C. Rumbaugh, Chas. L. Shafer, Kingston; Ralph L. Shanno, Forty Fort; L. A. Sheridan, A. V. Sloan, Wilkes-Barre; A. Burton Smith, Wyoming; Harry A. Smith, Wilkes-Barre; Lawrence H. Smith, Hazleton; I. Martin Stadulis, W. S. Stewart, Wilkes-Barre; A. M. Thomas, Wanamie; Irving O. Thomas, Max Tischler, J. B. Tobias, Fred C. Tongue, Wilkes-Barre; F. G. Tonrey, Pittston; A. Trapold, Sr., A. C. Trapold, Jr., Wm. A. Weaver, Wilkes-Barre; Burton A. Weil, Plymouth; James T. Williams, Wilkes-Barre.

LYCOMING COUNTY MEDICAL SOCIETY.—J. W. Arbogast, Lewisburg; L. M. Goodman, Jersey Shore; Geo. L. Schneider, Williamsport; Warren N. Shuman, Jersey Shore; C. L. Youngman, Williamsport.

MERCER COUNTY MEDICAL SOCIETY.—J. M. Jamison, Grove City.

MIFFLIN COUNTY MEDICAL SOCIETY.—H. C. Cassidy, Lewistown.

MONROE COUNTY MEDICAL SOCIETY.—Claus G. Jordan, Stroudsburg.

MONTGOMERY COUNTY MEDICAL SOCIETY.—John C. Burns, Wyncote; Wallace W. Dill, Norristown; J. Elmer Gotwals, Phoenixville.

MONTOUR COUNTY MEDICAL SOCIETY.—H. L. Foss, R. Y. Grone, Henry F. Hunt, R. E. Nicodemus, Danville; Russell Thomas, Lewisburg; Charles S. Tomlinson, Milton.

NORTHAMPTON COUNTY MEDICAL SOCIETY.—James A. Betts, Paul Correll, Easton; W. L. Estes, W. L. Estes, Jr., Bethlehem; Clarence D. Hummel, Frank J. Kessler, Reuben Raub, Donald C. Richards, Easton; D. K. Santee, Herbert J. Schmoyer, Arno R. Zack, Bethlehem.

NORTHUMBERLAND COUNTY MEDICAL SOCIETY.—George A. Deitrick, Mark K. Gass, E. M. Heckert, Sunbury; R. W. Johnston, Selinsgrove; John W. McDonnell, Sunbury; George W. Reese, Clay H. Weimer, Shamokin.

†PHILADELPHIA COUNTY MEDICAL SOCIETY.—J. O. Arnold, Harry E. Bacon, Wilbur Bailey, Harvey Bartle, William Bates, Moses Behrend, Wm. P. Belk, Ardmore; P. Brooke Bland, Frank B. Block, F. F. Borzell, Fred. A. Bothe, John O. Bower, John W. Bransfield, Samuel Bruck, S. F. Brunetti, Alexander E. Burke, W. Emory Burnett, Lawrence Curtis, E. L. Eliason, Louis D. Englerth, Temple Fay, Bruce L. Fleming, W. B. Forman, C. H. Frazier, Jos. M. Fruchter, Donald C. Geist, Ralph Goldsmith, Nicholas Gotten, Francis C. Grant, Robert A. Groff, Frank C. Hammong, Benjamin Haskell, B. C. Hirst, Robert H. Ivy, Arthur P. Keegan, F. E. Keene, James A. Kelly, Edward J. Klopp, John W. Klopp, Arthur D. Kurtz, John A. McGlimm, Catharine Macfarlane, Harvey C. Masland, Charles F. Mitchell, George P. Muller, Charles F. Nassau, John P. North, Hubley R. Owen, Alan P. Parker, Wm. N. Parkinson, James L. Richards, J. Stewart Rodman, J. Torrance Rugh, Thomas A. Shallow, John A. Sharkey, Vincent T. Shipley, Calvin M. Smyth, Wm. B. Swartley, T. Turner Thomas, Adolph A. Walkling, S. Dana Weeder, Edward H. Weiss.

SCHUYLKILL COUNTY MEDICAL SOCIETY.—John A. Carroll, Cumbola; L. D. Heim, Schuylkill Haven; James B. Heller, Charles V. Hogan, Pottsville; D. A. Holland, Mahanoy City; M. C. Householder, Pottsville; Louis C. LaBarre, Shenandoah; W. F. Leigh, Pottsville; J. S. Monahan, Shenandoah; H. R. Rarig, Ringtown; Albanus S. Ryland, Pottsville; W. A. Schmidt, Shenandoah; E. E. Shifferstine, Coaldale.

SUSQUEHANNA COUNTY MEDICAL SOCIETY.—Park M. Horton, New Milford.

WASHINGTON COUNTY MEDICAL SOCIETY.—J. H. Corwin, Herbert C. Friedlander, S. A. Ruben, Washington.

WESTMORELAND COUNTY MEDICAL SOCIETY.—D. Ray Murdock, O. B. Snyder, Greensburg.

YORK COUNTY MEDICAL SOCIETY.—C. W. Frey, Dalstown.

MINUTES OF THE SECTION ON PEDIATRICS

Tuesday, Oct. 2, 1934

The Section on Pediatrics convened in Taylor Memorial Nurses' Home, Wilkes-Barre General Hospital, at 1:00 p. m., as luncheon guests of the Hospital.

Following the luncheon, the meeting was called to order by Herbert E. Hall, Uniontown, Chairman of the

Section, who immediately relinquished the Chair to the Secretary, Francis T. O'Donnell, Wilkes-Barre.

The first period, from 2:00 to 4:00 p. m., was allotted to a Clinic, cases being presented as follows: "Myositis Ossificans," by Lewis W. Jones, Wilkes-Barre; "Epidermolysis Bullosa Hereditaria," by Samuel R. Kaufman, Wilkes-Barre; "Arthrogyphosis," by Joseph J. Kocyan, Wilkes-Barre; "Epistaxis and Paroxysmal Pulmonary Hemorrhage with Mitral Stenosis," by Charles H. Miner, Wilkes-Barre; "Congenital Absence of Ribs," by Cyrus Jacobosky, Wilkes-Barre; "Ossification of Skull at Birth," by Agnes N. Flack, Wilkes-Barre; "Atelectasis of Apices Due to Upper Respiratory Infection," by Harry Rubinstein, Wilkes-Barre; "A Case of Jaundice with Profound Anemia in the New Born," by John M. Higgins, Sayre; "Celiac Disease" and "Nephrosis with Alopecia," by Fred S. Huntington, Scranton; "Pulmonary Stenosis," by Vincent T. Curtin, Scranton; "Sympathectomy in Hirschsprung's Disease," by John J. Korn, Nanticoke; "Freidrich's Ataxia in Twins," "Serial Roentgen Rays of Acute Pericarditis," and "Hydrocephalus," by Marjorie E. Reed, Plymouth; "Lung Abscess with Rupture into Pleural Cavity," by A. Dattner, Wilkes-Barre; "Acute Meningo-Encephalomyelitis Complicating Measles," "Scleroderma," "Congenital Absence of Gallbladder and Extra Hepatic Ducts," "Diaphragmatic Hernia," "Unusual Case of Pyloric Stenosis," "Congenital Anomaly of Female Genitalia," "Leucoderma," by Francis T. O'Donnell, Wilkes-Barre.

Dr. Hall then resumed the Chair for the second period, from 4:00 to 5:00, during which the following papers were presented: "Postvaccinal Encephalitis in Siblings"—Case Report, by John D. Sturgeon, Uniontown; "Management of Diabetes Mellitus in Children," by John A. O'Donnell, Pittsburgh; "The Appendix Vermiform in Infancy and Childhood," by Edward L. Bauer, Philadelphia; "Overwhelming Acute Respiratory Infections," by Edward S. Thorpe, Philadelphia.

These papers were discussed by John M. Higgins, Sayre; and Howard F. Root, Boston, Mass.

Lewis T. Buckman, having been absent during the forepart of the meeting, then presented his case of "Non-specific Laryngotracheitis Necessitating Tracheotomy," which had been scheduled for the clinic.

The Section adjourned at 5:30 p. m.

Wednesday, Oct. 3, 1934

The Section on Pediatrics convened in the Y. W. C. A. Auditorium at 2:00 p. m., and was called to order by Chairman Herbert E. Hall.

During the first period, 2:00 to 2:55 p. m., the following papers were presented: "Two Cases of Brain Tumor"—Case Report (lantern demonstration), by Robert A. Knox, Washington; "Relative Prognostic Value of Schilling and Filament Blood Counts in Acute Infections in Children" (lantern demonstration), by Ralph M. Tyson and Frank W. Konzelmann, Philadelphia, presented by Dr. Tyson; "Significance of the Intelligence Quotient" (lantern demonstration), by Baldwin L. Keyes, Philadelphia; "Enuresis" (lantern demonstration), by Max R. Goldman, Pittsburgh.

These papers were discussed by H. Harris Perlman, Philadelphia; Robert T. Devereux, West Chester; and Harry Lowenburg, Philadelphia.

The second period, 3:00 to 3:55 p. m., was given to the following papers: "Mastoidectomy Complicated by Acute Hemorrhagic Nephritis"—Case Report, by Robert K. Rewalt, Williamsport; "Initial Weight Loss Reduction in Newborns" (lantern demonstration), by John

† Where no address is given, Philadelphia is indicated.

D. Donnelly, Bala-Cynwyd; "Management of Underweight Children," by George J. Feldstein, Pittsburgh; "Early Diagnosis of Allergic Disease of the Respiratory Tract," by J. Alexander Clarke, Jr., Philadelphia.

These papers were discussed by J. Gibson Logue, Williamsport; Mary Riggs Noble, Harrisburg; Persis Straight Robbins, Bradford; Shem A. Everett, Freeland; Harry Lowenburg, Philadelphia; and Robert T. Devereux, West Chester.

The third period was allotted to the guest speaker, I. Newton Kugelmass, New York City, who presented a lantern demonstration on the "Clinical Control of Hemorrhagic Disturbances in Children." At its conclusion, a rising vote of thanks was tendered to Dr. Kugelmass.

The Section then adjourned at 5:00 p. m.

Thursday, Oct. 4, 1934

The Section on Pediatrics convened at 1:40 p. m., in the Y. W. C. A. Auditorium, and was called to order by Chairman Herbert E. Hall.

The Chairman called for the report of the Executive Committee. Norbert D. Gannon, Chairman of the Committee, submitted the names of Francis T. O'Donnell, Wilkes-Barre, for Chairman, and Theodore O. Elterich, Pittsburgh, for Secretary, to serve for the following year.

There being no further nominations, these candidates were unanimously elected.

Norbert D. Gannon, Chairman of the Executive Committee, offered as a resolution for the endorsement of the Section, the following communication from the Committee on Pediatric Education: "It is rumored that the subject of diphtheria prevention is to be presented to the legislature as a requisite for admission to the schools of the State. The Pediatric Section is opposed to such legislation for the following reasons: (1) Most diphtheria occurs between the ages of one and 4 years; (2) the tendency to await the date of admission to schools before preventive measures are administered would imply such measures were unnecessary earlier; (3) the diphtheria incidence would be greatly increased in early childhood; (4) if the people are educated that 6 months is the desirable age, there will be no need of a school law."

Upon the motion of Emily P. Bacon, Philadelphia, duly seconded, the Section on Pediatrics unanimously endorsed the resolution.

The Section then proceeded with its program; and during the period from 1:45 to 2:15 p. m., the following papers were presented: "Duodenal Ulceration in Five-Year-Old Boy"—Case Report, by Norbert D. Gannon, Erie; "Adolescence from Pediatric Point of View" (lantern demonstration), by Theodore O. Elterich, Pittsburgh.

Arthur F. Abt, Chicago (guest), gave a lantern demonstration on "Leukemia in Childhood"; and upon motion of Theodore O. Elterich, Pittsburgh, duly seconded, a rising vote of thanks was tendered to Dr. Abt.

During the final period, 2 additional papers were read: "Report of a Three-Years' Clinical Study of Scarlet Fever Immunization" (lantern demonstration), by Emily P. Bacon, Philadelphia; "Preventive Treatment of Goiter in Schools," by John M. Quigley, Clearfield, representing the Pennsylvania School Physicians' Association.

These papers were discussed by J. Gibson Logue, Williamsport; and Shem A. Everett, Freeland.

The Section adjourned, *sine die*, at 4:00 p. m.

HERBERT E. HALL, *Chairman*,
FRANCIS T. O'DONNELL, *Secretary*.

Members Registered in Section on Pediatrics

ALLEGHENY COUNTY MEDICAL SOCIETY.—Theodore O. Elterich, George J. Feldstein, Max R. Goldman, Pittsburgh; F. Janvier, Nanty Glo; E. R. McCluskey, Pittsburgh; R. F. Richie, Harrisburg.

BLAIR COUNTY MEDICAL SOCIETY.—Elwood W. Stitzel, Altoona.

BRADFORD COUNTY MEDICAL SOCIETY.—John M. Higgins, Rodney L. Stedje, Sayre.

CAMBRIA COUNTY MEDICAL SOCIETY.—Louis H. Mayer, Jr., Johnstown.

CARBON COUNTY MEDICAL SOCIETY.—Marjorie D. Batchelor, Palmerton.

CHESTER COUNTY MEDICAL SOCIETY.—Robert T. Devereux, West Chester.

CLEARFIELD COUNTY MEDICAL SOCIETY.—J. M. Quigley, Clearfield; R. L. Williams, Houtzdale.

CRAWFORD COUNTY MEDICAL SOCIETY.—Luther J. King, Meadville.

DAUPHIN COUNTY MEDICAL SOCIETY.—Henry R. Douglas, Mary R. Noble, Arthur L. Page, Miriam Polk, Harrisburg.

DELAWARE COUNTY MEDICAL SOCIETY.—Alla Nekrasova, Lansdowne; Walter E. Wentz, Jr., Media.

ERIE COUNTY MEDICAL SOCIETY.—H. B. Emerson, Norbert D. Gannon, Erie.

FAYETTE COUNTY MEDICAL SOCIETY.—Herbert E. Hall, Charles H. Smith, John D. Sturgeon, Jr., Uniontown.

HUNTINGDON COUNTY MEDICAL SOCIETY.—Walter Orthner, Huntingdon.

LACKAWANNA COUNTY MEDICAL SOCIETY.—Vincent T. Curtin, P. J. Davies, Scranton; J. L. Flannery, Archbald; C. A. Gaynor, Fred S. Huntington, Lucius C. Kennedy, Scranton; D. E. Lewis, Peckville; H. M. Mittleman, Walter A. Spelyng, Scranton; Frank L. Swift, Dunmore; James R. Walsh, Carbondale; S. C. Wandoloski, Scranton.

LANCASTER COUNTY MEDICAL SOCIETY.—Anna P. Klemmer, E. K. Smith, Lancaster.

LEBANON COUNTY MEDICAL SOCIETY.—J. DeWitt Kerr, Lebanon.

LEHIGH COUNTY MEDICAL SOCIETY.—Maurice Kemp, Alexander M. Peters, Thomas H. Weaver, Allentown.

LUZERNE COUNTY MEDICAL SOCIETY.—J. H. Beckley, Nanticoke; John J. Corrigan, Lawrence F. Corrigan, J. Simpson Crater, Hazleton; A. Dattner, Wilkes-Barre; S. A. Everett, Freeland; Agnes N. Flack, Kingston; Robert O. Koons, Shickshimny; J. J. Korn, Nanticoke; E. T. Martyak, Hazleton; E. L. Meyers, Francis T. O'Donnell, Charles Hayden Phillips, Wilkes-Barre; Joseph W. Piekarski, Warrior Run; Marjorie E. Reed, Plymouth; Harry Rubinstein, Pittston; F. B. Schooley, Dallas; Nelson C. Woehrle, Plains.

LYCOMING COUNTY MEDICAL SOCIETY.—J. Gibson Logue, Robert K. Rewalt, Williamsport.

McKEAN COUNTY MEDICAL SOCIETY.—Persis Straight Robbins, Bradford.

MONROE COUNTY MEDICAL SOCIETY.—Charles S. Flagler, Stroudsburg.

MONTGOMERY COUNTY MEDICAL SOCIETY.—Percival Nicholson, Ardmore; Alice E. Sheppard, Pottstown; J. K. Williams Wood, Willow Grove.

NORTHAMPTON COUNTY MEDICAL SOCIETY.—Harvey O. Rohrbach, Bethlehem; Lewis A. Smith, Pen Argyl.

NORTHUMBERLAND COUNTY MEDICAL SOCIETY.—Emily R. Shipman, Mt. Carmel.

*PHILADELPHIA COUNTY MEDICAL SOCIETY.—Emily P. Bacon, S. Lincoln Baron, Edward L. Bauer, Israel Binder, Joseph L. Candido, Paul B. Cassidy, John D. Donnelly, Bala-Cynwyd; Harry W. Goos, S. McC. Hamill, John P. Keating, Baldwin L. Keyes, Harry Lowenburg, Pascal F. Lucchesi, H. Harris Perlman, B. Franklin Royer, John P. Scott, John F. Sinclair, Harry S. Snyderman, Edward S. Thorpe, Jr., Ralph M. Tyson, Ruth H. Weaver, T. S. Wilder.

SCHUYLKILL COUNTY MEDICAL SOCIETY.—R. R. Keiser, Mahanoy City; Thomas F. McLaughlin, Tamaqua.

SOMERSET COUNTY MEDICAL SOCIETY.—Charles I. Shaffer, Ralphton.

SUSQUEHANNA COUNTY MEDICAL SOCIETY.—Edward R. Gardner, Montrose; A. E. Snyder, New Milford.

WASHINGTON COUNTY MEDICAL SOCIETY.—Robert A. Knox, Washington.

WYOMING COUNTY MEDICAL SOCIETY.—Arthur B. Davenport, Tunkhannock.

YORK COUNTY MEDICAL SOCIETY.—W. R. Swartzwelder, York.

MINUTES OF THE SECTION ON EYE, EAR, NOSE, AND THROAT DISEASES

Tuesday, Oct. 2, 1934

The Section on Eye, Ear, Nose, and Throat Diseases was called to order at 2:10 p.m., the Chairman, George H. Cross, Chester, presiding.

Joseph V. Connole, Wilkes-Barre, read a paper entitled "Lightning and Electric Cataract," discussed by Warren S. Reese, Philadelphia; Frank C. Parker, Norristown; Edward B. Heckel, Pittsburgh; William Zentmayer, Philadelphia; and Dr. Connole, in closing.

Warren S. Reese, Philadelphia, read a paper entitled "Concretion of the Lacrimal Canaliculus," discussed by William Zentmayer, Philadelphia.

Hunter H. Turner, Pittsburgh, read a paper entitled "Preoperative Care of Cataract Patients," discussed by Edward B. Heckel, Pittsburgh; Harvey E. Thorpe, Pittsburgh; and Dr. Turner, in closing.

Charles N. Spratt, Minneapolis (guest), read a paper entitled "Early Diagnosis of Glaucoma."

Luther C. Peter, Philadelphia, read a paper entitled "Electrocoagulation for Retinal Detachment."

James S. Shipman and Benjamin F. Baer, Jr., Philadelphia, presented a paper entitled "Results in Detachment of the Retina."

These 2 papers were discussed by Edmund D. Spaeth, Philadelphia; Solon Rhode, Reading; Jay G. Linn, Pittsburgh; George B. Jobson, Franklin; Leighton F. Appleman, Philadelphia; Harvey E. Thorpe, Pittsburgh; and Dr. Peter, in closing.

The Tuesday afternoon session adjourned.

Wednesday, Oct. 3, 1934

The Section was called to order at 2 p.m., by the Chairman, George H. Cross.

The Executive Committee made its report, nominating the following officers for the Section during the ensuing year: Chairman, George W. Schlindwein, Erie; Secretary, Warren S. Reese, Philadelphia.

By unanimous vote the Secretary was instructed to

cast the vote of the Section for the above officers, and they were declared elected.

Owing to the acute illness, developed Sept. 28, of Reid Nebinger, Danville, his paper entitled "Acute Endemic Sore Throat with Report of Cases" was read by A. J. Abbott, Danville, and discussed by John R. Simpson, Pittsburgh.

Philip S. Stout, Philadelphia, read a paper entitled "Influenzal Frontal Sinusitis Complicated with Meningo-Encephalitis," discussed by Joseph C. Yaskin, Philadelphia; George W. Mackenzie, Philadelphia; J. J. Sullivan, Scranton; and Dr. Stout, in closing.

William V. Mullin, Cleveland (guest), read a paper entitled "The Blood in Otolaryngology."

Henry Dintenfass, Philadelphia, read a paper entitled "Facial Paralysis from Acute Middle Ear Disease," discussed by John B. McMurray, Washington; Arthur J. Wagers, Philadelphia; and George W. Mackenzie, Philadelphia.

John R. Simpson, Pittsburgh, read a paper entitled "Minor Conditions Affecting the Ear, Nose, and Throat," discussed by George B. Jobson, Franklin; John B. McMurray, Washington; Philip S. Stout, Philadelphia, and Matthew S. Ersner, Philadelphia.

Kenneth M. Day, Pittsburgh, read a paper entitled "Practical Points in the Treatment of Chronic Suppurative Otitis Media," discussed by George M. Coates, Philadelphia; George B. Jobson, Franklin; and Dr. Day, in closing.

J. Merle Russell, Erie, read a paper entitled "Infection Following Mandibular Injections." This paper was not discussed.

Wesley L. Allison, Pittsburgh, read a paper entitled "The Treatment of Antral Disease," which was discussed by deWayne G. Richey, Pittsburgh; F. Earle Magee, Oil City; and Dr. Allison, in closing.

The Wednesday afternoon session adjourned.

Thursday, Oct. 4, 1934

The Section was called to order at 2:10 p.m. by the Chairman, George H. Cross.

J. Milton Griscom, Philadelphia, read a paper entitled "Concerning the Etiology of Episcleritis," discussed by Charles R. Heed, Philadelphia; Leonard G. Redding, Scranton; and Dr. Griscom, in closing.

Charles E. G. Shannon, Philadelphia, read a paper entitled "Secondary Glaucoma," which was discussed by Leo F. McAndrews, Charles R. Heed, Alfred Cowan, L. W. Deichler, and J. Milton Griscom, Philadelphia; George H. Cross, Chester; and Dr. Shannon, in closing.

Alfred Cowan, James S. Jordan, Philadelphia, presented a paper on "The Use of Pregl's Solution in Treatment of Various Ocular Conditions," which was discussed by Leighton F. Appleman, Philadelphia; Lewis P. Glover, Altoona; J. Milton Griscom, Philadelphia; George H. Cross, Chester; and Drs. Cowan and Jordan, in closing.

Leighton F. Appleman, Philadelphia, read a paper entitled "Importance of Correcting Muscular Imbalance in the Relief of Asthenopia," which was discussed by Lewis P. Glover, Altoona; M. M. Williams, Scranton; Charles E. G. Shannon, Philadelphia; and Dr. Appleman, in closing.

The Thursday afternoon session adjourned.

GEORGE H. CROSS, *Chairman*,

GEORGE W. SCHLINDWEIN, *Secretary*.

* Where no address is given, Philadelphia is indicated.

Members Registered in Section on Eye, Ear, Nose, and Throat Diseases

* ALLEGHENY COUNTY MEDICAL SOCIETY.—Wesley L. Allison, Edward B. Heckel, Jay G. Linn, Thomas B. McCollough, Thomas H. Manley, Tarentum; I. J. Morgan, Isadore Pachtman, deWayne G. Richey, John R. Simpson, Harvey E. Thorpe, Hunter H. Turner.

BERKS COUNTY MEDICAL SOCIETY.—Isaac B. High, James E. Landis, Solon L. Rhode, Reading.

BLAIR COUNTY MEDICAL SOCIETY.—Lewis P. Glover, Altoona; J. W. Stitzel, Hollidaysburg.

BRADFORD COUNTY MEDICAL SOCIETY.—N. S. Weinberger, Sayre.

CAMBRIA COUNTY MEDICAL SOCIETY.—Harold M. Griffith, Paul McCloskey, Johnstown; Edwin C. Miller, Portage.

CARBON COUNTY MEDICAL SOCIETY.—William R. Bonner, Summit Hill; C. J. Kistler, Lehigh.

CENTER COUNTY MEDICAL SOCIETY.—J. V. Foster, State College.

CLINTON COUNTY MEDICAL SOCIETY.—Graydon D. Mervine, Lock Haven.

COLUMBIA COUNTY MEDICAL SOCIETY.—Henry Bierman, Bloomsburg; Martin W. Freas, Berwick; G. Paul Moser, Ringtown.

CRAWFORD COUNTY MEDICAL SOCIETY.—Maurice T. Leary, Meadville.

DAUPHIN COUNTY MEDICAL SOCIETY.—Forney P. George, Harrisburg; H. W. George, Middletown; George F. Gracey, George H. Seaks, J. W. Shaffer, Harrisburg.

DELAWARE COUNTY MEDICAL SOCIETY.—Geo. H. Cross, C. Irvin Stiteler, Chester.

ELK COUNTY MEDICAL SOCIETY.—J. C. McAllister, Ridgway.

ERIE COUNTY MEDICAL SOCIETY.—James A. M. Russell, G. Wm. Schlindwein, Erie.

FRANKLIN COUNTY MEDICAL SOCIETY.—F. N. Emmert, Chambersburg.

HUNTINGDON COUNTY MEDICAL SOCIETY.—Wm. T. Hunt, Huntingdon.

LACKAWANNA COUNTY MEDICAL SOCIETY.—F. J. Bishop, Eugene A. Curtin, John P. Donahoe, Harry Goodfriend, F. P. Hollister, Leonard G. Redding, M. M. Rosenberg, E. B. Shaul, J. J. Sullivan, Jr., M. M. Williams, Scranton.

LANCASTER COUNTY MEDICAL SOCIETY.—Harry C. Fulton, W. H. Lefevre, T. C. Shookers, Lancaster.

LEHIGH COUNTY MEDICAL SOCIETY.—Leo T. Chylack, Wm. J. Hertz, Allentown; C. B. Reitz, Palmerton; Geo. F. Seiberling, J. M. West, Allentown.

LUZERNE COUNTY MEDICAL SOCIETY.—S. W. Blazejewski, E. U. Buckman, Lewis T. Buckman, Samuel T. Buckman, Wilkes-Barre; J. J. Caffrey, Sugar Notch; George W. Carr, Wilkes-Barre; William Christian, Luzerne; Joseph V. Connole, Wilkes-Barre; W. V. Coyle, Hazleton; W. F. Davison, Kingston; J. F. Dolphin, Wilkes-Barre; John R. Dyson, Hazleton; Elijah M. Ellsworth, Kingston; F. C. Eshelman, Hazleton; A. E. Foster, Wilkes-Barre; Thos. R. Gagon, Vincent Gallizzi, Pittston; E. F. Hanlon, Hazleton; D. H. Herschfield, Wilkes-Barre; U. A. James, Pittston; Percival M. Kerr, Wilkes-Barre; Charles J. Kistler, Kingston; O. F. Kistler, Wilson C. Marsden, Wilkes-Barre; C. E. Nicholson, Pittston; Lewis S. Reese, Kingston; O. C. Reiche, Hazleton; W. F. Roth, N. Louis Schappert, Wilkes-Barre; J. E. Scheiffy,

Kingston; Frank Venerosa, Hazleton; W. W. Waters, Nanticoke; L. G. Wetterau, McAdoo.

LYCOMING COUNTY MEDICAL SOCIETY.—W. F. Kunkle, Williamsport.

MERCER COUNTY MEDICAL SOCIETY.—B. A. Black, Grove City.

MONROE COUNTY MEDICAL SOCIETY.—W. L. Angle, East Stroudsburg.

MONTGOMERY COUNTY MEDICAL SOCIETY.—Joseph E. Beideman, Norristown; Frank L. Follweiler, Jenkintown; Frank C. Parker, Norristown.

MONTOUR COUNTY MEDICAL SOCIETY.—F. W. Davison, John H. Sandel, Danville.

NORTHAMPTON COUNTY MEDICAL SOCIETY.—C. Hugh Bloom, Easton; W. D. Chase, James Edward James, Bethlehem; Tyrus E. Swan, F. W. Uhler, Easton.

† PHILADELPHIA COUNTY MEDICAL SOCIETY.—Wm. H. Annesley, Leighton F. Appleman, Samuel Horton Brown, Jr., Seth A. Brumm, Louis J. Burns, Miriam M. Butt, Louis H. Clerf, George M. Coates, Alfred Cowan, John W. Croskey, Thos. R. Currie, L. W. Deichler, Charles Q. DeLuca, Henry Dintenfuss, Matthew S. Ersner, Curtis C. Eves, Samuel B. Greenway, J. Milton Griscom, Charles R. Heed, William Hewson, Robert J. Hunter, C. L. Jackson, Kelvin A. Kasper, F. Krauss, Daniel J. Langton, Leo F. McAndrews, C. T. McCarthy, Douglas Macfarlan, George W. Mackenzie, Edwin B. Miller, Edward K. Mitchell, A. H. Persky, Luther C. Peter, Paul J. Pontius, Thomas H. Price, Warren S. Reese, C. E. G. Shannon, Edmund B. Spaeth, Philip S. Stout, Charles J. Swalm, Gabriel Tucker, Arthur J. Wagers, Joseph C. Yaskin, William Zentmayer, Merion.

SCHUYLKILL COUNTY MEDICAL SOCIETY.—William J. Cress, Carl W. Espy, Pottsville; R. F. Fleck, Mahanoy City; James J. Monahan, Shenandoah; Edward V. Tolan, Pottsville; T. Lamar Williams, Mt. Carmel.

SUSQUEHANNA COUNTY MEDICAL SOCIETY.—R. B. Mackey, Montrose.

TIOGA COUNTY MEDICAL SOCIETY.—Hughes C. Meaker, Mansfield; Wm. F. White, Wellsboro.

VENANGO COUNTY MEDICAL SOCIETY.—George B. Jobson, Franklin; F. Earle Magee, Oil City.

WASHINGTON COUNTY MEDICAL SOCIETY.—John B. McMurray, Washington.

WESTMORELAND COUNTY MEDICAL SOCIETY.—Homer R. Mather, Latrobe.

WYOMING COUNTY MEDICAL SOCIETY.—L. T. MacDougall, Tunkhannock.

YORK COUNTY MEDICAL SOCIETY.—C. L. Fackler, York.

MINUTES OF THE SECTION ON DERMATOLOGY

Wednesday, Oct. 3, 1934

The Section on Dermatology met in Room C, Hotel Mallow-Sterling, Wilkes-Barre, Wednesday, Oct. 3, 1934, and was called to order by Chairman Herbert J. Smith, Philadelphia, at 2:00 p.m.

There was a short business session. The Executive Committee reported nominations as follows: Chairman, Robert Louis Gilman, Philadelphia; Secretary, Frederick M. Jacob, Pittsburgh. The Chairman called for nominations from the floor, but none was forthcoming and a motion that the nominations be closed was unanimously carried. Drs. Gilman and Jacob were declared

* Where no address is given, Pittsburgh is indicated.

† Where no address is given, Philadelphia is indicated.

Chairman and Secretary, respectively, for the ensuing year.

During the first period from 2:00 to 2:55 p. m., the following papers were read: "Psoriasis," by Park A. Deckard, Harrisburg; "Modern Viewpoint on the Problem of Eczema," by Charlotte Backus-Jordan, Easton; "Etiology and Treatment of Acne Vulgaris," by Frederick Amshel, Pittsburgh.

These papers were discussed by Frank C. Knowles, Patricia H. Drant, and Reuben Friedman, Philadelphia; Lester Hollander, Pittsburgh; Howard Fox, New York City; and Drs. Backus-Jordan and Amshel, in closing.

In the second period from 3:00 to 3:55 p. m., Howard Fox (guest), New York City, presented a paper entitled "Diseases of the Tongue and Mouth" (lantern demonstration).

In the third period from 4:00 to 4:55 p. m., the following papers were read: "Stovarsol Therapy in Congenital Syphilis: A Preliminary Report of Fifty Cases," by Donald M. Pillsbury and H. Harris Perlman, Philadelphia; "Pityriasis Rosea: Clinical Varieties, Etiology, and Treatment," by Thomas Butterworth, Reading; and "The Management of Cutaneous Ringworm Infection," by Jacques P. Guequierre, Philadelphia.

These papers were discussed by John F. Sinclair, Edward F. Corson, and Fred D. Weidman, Philadelphia; and Drs. Butterworth and Pillsbury, in closing.

The meeting adjourned.

HERBERT J. SMITH, *Chairman*,
ROBERT L. GILMAN, *Secretary*.

Members Registered in Section on Dermatology

ALLEGHENY COUNTY MEDICAL SOCIETY.—Frederick Amshel, D. N. Bulford, Bernhard A. Goldman, Lester Hollander, Fred M. Jacob, Pittsburgh.

BERKS COUNTY MEDICAL SOCIETY.—Thomas Butterworth, Reading.

CAMBERIA COUNTY MEDICAL SOCIETY.—J. Walter Barr, Johnstown.

CRAWFORD COUNTY MEDICAL SOCIETY.—John G. Beck, Titusville.

DAUPHIN COUNTY MEDICAL SOCIETY.—Park A. Deckard, Harrisburg.

LACKAWANNA COUNTY MEDICAL SOCIETY.—Samuel Gross, Gisela Von Poswik, William D. Whitehead, Scranton.

LUZERNE COUNTY MEDICAL SOCIETY.—C. J. Becker, Harold J. Harris, Cyrus Jacobosky, S. R. Kaufman, Wilkes-Barre; Ella R. Summa, Nanticoke; I. R. Teitsworth, Kingston.

NORTHAMPTON COUNTY MEDICAL SOCIETY.—E. R. Beidelman, Bethlehem.

* PHILADELPHIA COUNTY MEDICAL SOCIETY.—Herman Beerman, Edward F. Corson, Patricia Drant, Reuben Friedman, Robert L. Gilman, S. S. Greenbaum, Jacques P. Guequierre, Frank C. Knowles, Henry G. Munson; Donald M. Pillsbury, Ardmore; Herbert J. Smith, A. Strauss, Fred Weidman.

SCHUYLKILL COUNTY MEDICAL SOCIETY.—Andrew J. Klembara, Pottsville.

MINUTES OF THE SECTION ON UROLOGY

Tuesday, Oct. 2, 1934

The Section on Urology convened in the Auditorium of the Kirby Health Center, Wilkes-Barre, at 2 p. m.,

* Where no address is given, Philadelphia is indicated.

and was called to order by the Chairman, Willard H. Kinney.

Peter P. Mayock, Wilkes-Barre, opened the session with the presentation of a paper entitled "Renal and Ureteral Anomalies" (lantern demonstration). Discussion by James B. Purcell, Wilkes-Barre.

George G. Smith, Boston (guest), read a paper on "Treatment of Tumor of the Bladder" (lantern demonstration). Discussion by Stacy M. Hankey, Pittsburgh; Francis G. Harrison, Thomas C. Stellwagen, and Henry Sangree, Philadelphia.

A paper on "Rupture of the Kidney" (lantern demonstration) was read by Thomas C. Stellwagen, Philadelphia. This paper was discussed by Edward J. McCague, Pittsburgh; Wilbur Haines, Philadelphia; and Dr. Stellwagen, in closing.

Henry Sangree, Philadelphia, presented a paper entitled "Nephritis and Calculus Formation and Their Relation to Urinary Anomalies" (lantern demonstration). Discussion by Willard H. Kinney, Philadelphia.

A paper on "Stricture of the Ureter and Its Treatment" was read by Burtis M. Hance, Easton. The paper was discussed by David L. Simon, Pittsburgh.

Dr. Mayock gave a reception to the members of the Urologic Section at his home on Tuesday evening. About 50 members were present.

Wednesday, Oct. 3, 1934

On Wednesday the members of the Section on Urology were the guests of Dr. Mayock at a luncheon held at the Mercy Hospital, in which he is chief of the Urologic Service.

The second session met at 2 p. m. Chairman Kinney, owing to the absence of the Executive Committee, appointed a committee to place in nomination officers for 1934. The report of the committee was as follows: Chairman, George A. Holliday, Pittsburgh; Secretary, David P. McCune, McKeesport; Executive Committee, Thomas L. Disque, Pittsburgh; Thomas C. Stellwagen, Philadelphia; Willard H. Kinney, Philadelphia. Upon motion, regularly seconded and carried, the recommendations of the Executive Committee were approved and the officers unanimously elected.

The session officially extended a vote of thanks to Dr. Mayock for his excellent entertainment as well as the wonderful provision made for the carrying out of the program of the Section on Urology in Wilkes-Barre.

The first paper presented at the afternoon session was entitled "Anuria as a Surgical Complication" (lantern demonstration), by Francis G. Harrison, Philadelphia. This paper was discussed by James E. McDowell, Pottsville; and Leon Herman, Henry Sangree, and Willard H. Kinney, Philadelphia.

David P. McCune, McKeesport, read a paper on "Differential Diagnosis of Genital Lesions" (lantern demonstration). William Hutchison, McKeesport; Ralph P. Beatty, Uniontown; George A. Holliday, Pittsburgh; and Dr. McCune discussed this paper.

James J. Lee, Pittsburgh, presented a paper on "Renal Tumors in Children" (lantern demonstration). This paper was discussed by Robert L. Anderson, Pittsburgh, and F. G. Harrison, Philadelphia.

A paper on "Malignant Tumors of the Kidney" (lantern demonstration) was read by Leo P. Gibbons, Scranton, and discussed by Milton I. Pentecost, Scranton; Albert J. Bruecken, Pittsburgh; and Robert L. Anderson, Pittsburgh.

Samuel L. Grossman, Harrisburg, presented a paper on "Lymphogranuloma Inguinale." This paper was dis-

cussed by John Oenslager, Jr., Harrisburg; Ralph Bacon, Erie; and George A. Holliday, Pittsburgh.

The session closed with the presentation of case reports by Ralph P. Beatty, Uniontown, "Spontaneous Rupture of a Hydronephrotic Kidney" (lantern demonstration); and Stanley Q. West, Philadelphia, "Unusual Foreign Body in the Urethra with Technic of Removal."

Adjournment.

WILLARD H. KINNEY, *Chairman*,
DAVID P. McCUNE, *Secretary*.

Members Registered in Section on Urology

* ALLEGHENY COUNTY MEDICAL SOCIETY.—Robert L. Anderson, Stacy M. Hankey, George A. Holliday, William Hutchison, McKeesport; J. J. Lee, David P. McCune, McKeesport; David L. Simon.

BEAVER COUNTY MEDICAL SOCIETY.—James L. Whitehill, Beaver.

BERKS COUNTY MEDICAL SOCIETY.—Ralph L. Reber, Reading.

DAUPHIN COUNTY MEDICAL SOCIETY.—Edgar S. Everhart, Lemoyne; S. L. Grossman, John Oenslager, Jr., Harrisburg.

ERIE COUNTY MEDICAL SOCIETY.—J. Harrison Tate, Erie.

FAYETTE COUNTY MEDICAL SOCIETY.—Ralph P. Beatty, Uniontown.

LACKAWANNA COUNTY MEDICAL SOCIETY.—Leo P. Gibbons, S. Z. Myers, M. G. O'Brien, Scranton.

LEHIGH COUNTY MEDICAL SOCIETY.—W. C. Masonheimer, Allentown.

LUZERNE COUNTY MEDICAL SOCIETY.—Wm. Baurys, Nanticoke; Wm. J. Daw, Forty Fort; August G. Hinrichs, Pittston; Francis P. Judge, Plains; Norman A. Karmilowicz, Kingston; Charles W. Letcher, Wilkes-Barre; Joseph T. McAloose, McAdoo; Peter P. Mayoock, Wilkes-Barre; Thos. H. Murphy, Pittston; James B. Purcell, Wilkes-Barre; G. A. Shuman, Edwardsville; F. D. Thomas, Homer B. Wilcox, Kingston.

† PHILADELPHIA COUNTY MEDICAL SOCIETY.—J. C. Birdsell, Theodore R. Fetter, Wilbur H. Haines, F. G. Harrison, Leon Herman, Willard H. Kinney, Edward T. Litt, James F. McCahey, L. F. Milliken, Henry Sangree, R. M. Smith, Thos. C. Stellwagen, Stanley Q. West.

SCHUYLKILL COUNTY MEDICAL SOCIETY.—J. E. McDowell, Pottsville.

Members Registered, Section not Designated

ALLEGHENY COUNTY MEDICAL SOCIETY.—John J. McCarthy, Pittsburgh; Harold A. Miller, Harrisburg.

BERKS COUNTY MEDICAL SOCIETY.—Herbert Herskovitz, Wernersville.

COLUMBIA COUNTY MEDICAL SOCIETY.—W. F. Confair, Benton.

DELAWARE COUNTY MEDICAL SOCIETY.—Patrick J. Kennedy, Lansdowne.

HUNTINGDON COUNTY MEDICAL SOCIETY.—John M. Reichline, Huntingdon.

LACKAWANNA COUNTY MEDICAL SOCIETY.—Wm. J. Corcoran, Old Forge; Raymond G. Hidlay, Dunmore; Byron H. Jackson, John B. Jordan, Jr., Scranton; W. H. Newman, Jr., Clarks Summit.

LANCASTER COUNTY MEDICAL SOCIETY.—B. Elizabeth Herbert, Columbia; Louise E. Keasby, Lancaster.

LEHIGH COUNTY MEDICAL SOCIETY.—Alfred M. Dietrich, Jr., F. A. Fetherolf, Wayne G. Stump, Allentown.

LUZERNE COUNTY MEDICAL SOCIETY.—P. F. Brosius, Hazleton; C. B. Crittenden, Anatole Desjardins, Wilkes-Barre; T. F. Fleming, Exeter; A. L. Hauslohner, Wilkes-Barre; E. J. Kielar, Glen Lyon; Helen E. McGovern, J. M. Nealon, J. F. Roth, Della Wetherby, Wilkes-Barre; Eugene F. Wolfe, Shickshinny.

LYCOMING COUNTY MEDICAL SOCIETY.—H. W. Current, Montoursville; Edward Lyon, Williamsport.

MIFFLIN COUNTY MEDICAL SOCIETY.—M. E. Wagner, McClure.

MONROE COUNTY MEDICAL SOCIETY.—Thomas I. Metzger, Stroudsburg.

MONTGOMERY COUNTY MEDICAL SOCIETY.—C. A. Laubach, Norristown; R. K. Powell, Rosemont.

NORTHAMPTON COUNTY MEDICAL SOCIETY.—Frederick O. Zillesen, Easton.

PHILADELPHIA COUNTY MEDICAL SOCIETY.—J. James Cancelmo, S. C. Copeland, Philadelphia.

WARREN COUNTY MEDICAL SOCIETY.—W. M. Cashman, Warren.

WAYNE-PIKE COUNTY MEDICAL SOCIETY.—Robert G. Barckley, Milford.

Guest Physicians

Arthur F. Abt, Chicago, Illinois; Herrmann L. Blumgart, Boston, Massachusetts; C. Macfie Campbell, Cambridge, Massachusetts; Howard Fox, Frederick C. Holden, New York City; John Shelton Horsley, Richmond, Virginia; I. Newton Kugelmass, New York City; William V. Mullin, Cleveland, Ohio; George G. Smith, Boston, Massachusetts; Charles N. Spratt, Minneapolis, Minnesota; Jerome P. Webster, New York City; Erwin Zweifel, Munich, Germany.

Visitors

Frank S. Koronkiewicz, Nanticoke, representing Pennsylvania Pharmaceutical Association; John H. Corcoran, D.D.S., Scranton, representing Pennsylvania State Dental Society; Albert J. Abbott, Danville; Roy T. Agostine, Old Forge; Sister Mary Albert, R.N., Wilkes-Barre; C. Earl Albrecht, Abington; Sister Mary Anicestus, R.N., Edw. R. Aston, D.D.S., Wilkes-Barre; A. R. Baumann, D.D.S., Philadelphia; Geo. J. Bednark, D.D.S., H. M. Beet, D.D.S., Wilkes-Barre; H. E. Bishop, Sayre; B. C. Blaine, James Bloom, Harrisburg; M. J. Borthwick, Avoca; Frank B. Bortz, McKeesport; Joseph P. Burke, Scranton; Morris A. Bowie, Rosemont; Hugh S. Boyle, Luzerne; C. R. Brandt, Harrisburg; A. J. Brennan, Plymouth; Leo J. Brown, D.D.S., Wilkes-Barre; Jos. N. Brun, Pittston; A. W. Brunasci, Wilkes-Barre; Emilie Mundy Burke, R.N., Philadelphia; Milton H. Burnat, D.D.S., Wilkes-Barre; L. F. Bush, Danville; Bruce R. Cardon, D.D.S., Wilkes-Barre; Robert Charr, White Haven; Charles J. Chrampi, D.D.S., Pittston; William A. Collins, D.D.S., Taylor; Adrian Conlan, Wm. F. Connell, Pittston; Thomas J. Conahan, Wilkes-Barre; Thomas J. Connelly, D.D.S., Kingston; Carlton T. Creasy, John J. Curtin, Wyoming; Charles B. Daugherty, Tyrone; Howard M. Davis, D.D.S., Scranton; W. E. Davis, D.D.S., Wilkes-Barre; Edmond J. Donnegan, D.D.S., Scranton; Frank E. Doughty, D.D.S., J. A. Dougherty, D.D.S., Wilkes-Barre; William J. Doyle, Centralia; Edward C. Dreher, Warren K. Dutcher, D.D.S., Sister

* Where no address is given, Pittsburgh is indicated.

† Where no address is given, Philadelphia is indicated.

Mary Elizabeth, Wilkes-Barre; LeRoy M. Ennis, D.D.S., Drexel Hill; James S. Fagan, D.D.S., Wilkes-Barre; Harold B. Fear, Pittston; Frederick A. Fiske, Philadelphia; Murray Finkelstein, Olyphant; J. B. Flanagan, D.D.S., Wilkes-Barre; Joseph E. Forman, Philadelphia; Sister Mary Francis, R.N., Wilkes-Barre; Joseph De Francois, D.D.S., Nanticoke; Elliot N. Freeman, White Haven; Geo. D. Gammon, Philadelphia; Charles R. Gatusky, D.D.S., Ashley; Joseph Gelehrter, Philadelphia; Geo. Gibbons, Jr., Wilkes-Barre; O. S. Glatt, New York City; Ray H. Goulstone, D.D.S., Kingston; L. Mabel Grant, Sayre; Arthur B. Green, Wilkes-Barre; A. L. Grohowski, Freeland; Harold B. Harris, Plymouth; Howard Y. Harris, Kingston; J. Grant Hartes, D.D.S., Nanticoke; Ralph F. Harwick, Abington; A. J. Hefferman, D.D.S., T. C. Henderson, Abington; R. A. Herring, New York City; C. E. Hobbs, D.D.S., Wilkes-Barre; William H. Holmes, D.D.S., Thomas G. Hull, Chicago; E. G. Hungerford, D.D.S., Wilkes-Barre; Donald W. Ingham, Lancaster; L. W. Jackson, Stephen A. Jonas, Wilkes-Barre; J. Albright Jones, Philadelphia; Charlotte Bachus-Jordan, Stroudsburg; Cecelia B. Karbosk, Nanticoke; I. Kaufman, D.D.S., Wilkes-Barre; David H. Keller, Stroudsburg; W. J. Kennedy, D.D.S., McAdoo; J. T. Kietly, Towanda; George L. King, Jr., Alliance, Ohio; Paul H. Kivler, Retreat; R. Gordon Kizer, D.D.S., Lake Ariel; Harry B. Knapp, Mt. Pocono; Eugenia Kohanin, D.D.S., Wilkes-Barre; John A. Kozak, D.D.S., Fred H. Kroll, D.D.S., John S. Kulp, D.D.S., Wilkes-Barre; W. L. Lanyon, R. B. Leacher, D.D.S., Nanticoke; M. D. Lacklitner, Howard C. Leopold, Samuel Levine, Philadelphia; James Lewis, Scranton; L. A. McAndrew, Vandling; Wm. J. McElroy, Jr., Thomas B. McHale, D.D.S., Wilkes-Barre; W. J. McNelis, D.D.S., Hazleton; Bertram B. Machot, D.D.S., Brooklyn; B. V. Manganielli, D.D.S., Pittston; Sister Mary Margaret, R.N., Wilkes-Barre; Ralph Markley, Elizabethtown; Josef E. Martin, Kingston; Sister Mary Martina, R.N., H. D. Matten, D.D.S., Wilkes-Barre; Paul J. Matusarage, D.D.S., Glen Lyon; Edmund V. Matys, Avoca; Tom Mayac, D.D.S., Wilkes-Barre; Catherine F. M. Merrick, Henry W. Merritt, Sister Mary Michale, Wilkes-Barre; Allison H. Miller, D.D.S., Kingston; Joseph J. Miller, Pittston; M. E. Miller, D.D.S., Wilkes-Barre; R. R. Montelius, D.D.S., Hazleton; R. W. Morgan, Kingston; M. Moskowitz, D.D.S., Wilkes-Barre; Joseph D. Moylan, Scranton; Joseph J. Mullen, Shenandoah; F. W. Nash, D.D.S., Scranton; C. A. Nicholas, Easton; John P. Niles, Jr., Carbondale; Albert G. Norcest, D.D.S., Thomas A. O'Connell, D.D.S., Wilkes-Barre; Kenneth O'Toole, Scranton; William Pearlman, Kingston; L. L. Pennock, Pittsburgh; M. J. Pescor, Lewisburg; H. E. Peters, D.D.S., Hazleton; R. A. Phillips, Philadelphia; Robert Titus Phillips, Boston; H. G. Putebone, D.D.S., Wilkes-Barre; Evan C. Reese, Audenried; Sister Mary Regina, R.N., J. J. Reichman, Wilkes-Barre; Hugh Robertson, Radnor; Herman Roger, White Haven; Howard F. Root, Boston; Sister Mary Rosamond, Wilkes-Barre; Victor B. Roscoe, D.D.S., Forty Fort; Eugene A. Rushin, Nanticoke; David D. Rustein, Wilkes-Barre; F. D. Sain, Lawn-dale, N. C.; Samuel L. Sandge, Abington; C. L. Santee, Wapwallopen; Thad. A. Salaczynski, Nanticoke; Joseph L. Scheingen, D.D.S., William B. Schwinger, D.D.S., Samuel Slavin, D.D.S., Fred J. Schmitt, D.D.S., Wilkes-Barre; Isadore Spark, Philadelphia; Stanley M. Stapinski, Glen Lyon; James H. Sterner, Philadelphia; W. H. Stoner, Tuckahoe, N. Y.; S. H. Straessley, D.D.S., Wilkes-Barre; Max M. Strumia, Nar-

berth; J. M. Trach, Fairmont, W. Va., Leslie D. Trott, Glendale, Calif.; John T. Valenti, Pittston; Frank Vander Bogert, Schenectady, Lawrence D. Van Till-barg, Abington; A. B. Vastine, D.D.S., Bloomsburg; Caroline Vetkoskey, Upper Darby; Earl S. Vollm, Philadelphia; Talcott Wainwright, Nanticoke; M. J. Walsh, Pittston; S. S. Watson, Moosic; Adelaide Ellsworth Weston, Jamestown, New York; Paul G. Weston, Shavertown; F. B. Westwood, Harrisburg; Charles F. Williams, White Haven; D. B. Williams, Wilkes-Barre; L. D. Williams, Plymouth; Irving J. Wolman, V. W. Murray Wright, Philadelphia; Antonio Yavarretz, Havana, Cuba; J. P. Zawoiski, Plains.

Registration of Members by Counties

	<i>Membership</i>	<i>At Wilkes-Barre</i>
Adams	25	1
Allegheny	1289	78
Armstrong	46	2
Beaver	83	3
Bedford	14	1
Berks	162	27
Blair	97	9
Bradford	39	15
Bucks	59	2
Butler	52	1
Cambria	169	10
Carbon	30	6
Center	22	7
Chester	97	7
Clarion	28	..
Clearfield	58	7
Clinton	22	5
Columbia	33	16
Crawford	49	7
Cumberland	37	2
Dauphin	202	35
Delaware	143	14
Elk	24	3
Erie	147	12
Fayette	111	8
Franklin	62	2
Greene	28	1
Huntingdon	27	6
Indiana	48	1
Jefferson	47	3
Juniata	6	..
Lackawanna	227	118
Lancaster	169	23
Lawrence	68	..
Lebanon	28	1
Lehigh	141	28
Luzerne	312	290
Lycoming	117	32
McKean	40	2
Mercer	74	6
Mifflin	23	4
Monroe	21	11
Montgomery	173	27
Montour	36	16
Northampton	142	34
Northumberland	76	19
Perry	11	..
Philadelphia	2190	236
Potter	13	..
Schuylkill	158	39
Somerset	39	1
Susquehanna	13	4
Tioga	23	3
Venango	53	2

	Membership	At Wilkes-Barre	Summary of Registered Attendance	
Warren	42	3	Members	1224
Washington	117	9	Guest physicians, including interns	127
Wayne-Pike	21	5	Total physicians	1351
Westmoreland	152	10	Dentists	61
Wyoming	13	3	Woman's Auxiliary	472
York	131	7	Other visitors, including registered nurses	113
Total		1224	Grand total registered attendance	1997

OFFICERS' DEPARTMENT

WALTER F. DONALDSON, M.D., *Secretary*, 8104 Jenkins Arcade, Pittsburgh, Pa.

OUR BUILDING'S DEDICATION

The Building Improvements Committee of the Board of Trustees announces that the completion of the new headquarters and library building of our Society at 230 State Street, Harrisburg, will be celebrated on Tuesday afternoon, Dec. 11, 1934. An hour's program of brief addresses beginning at 3:30 p. m. will include participation by the Honorable Gifford Pinchot, Governor of Pennsylvania, and a representative of the Board of Trustees of the American Medical Association.

The occasion will be featured by the hanging of a portrait, presented by the Bradford County Medical Society, of the late Cyrus Lee Stevens, A.M., M.D., of Athens, Pa., who was from 1896 to 1918 secretary of The Medical Society of the State of Pennsylvania, from 1904 to 1920 editor of the PENNSYLVANIA MEDICAL JOURNAL, and in 1919 president of the Society.

Members of the Society are urged to attend these exercises or to visit our Society's improved headquarters at their earliest opportunity. The architect's description of the improvements and the new fireproof addition, with photographs of the old and of the new buildings as well as of the new addition, together with a description of the plans for the library service to the membership, will appear in the January issue of the JOURNAL.

PUBLIC MEETING EMERGENCY CHILD HEALTH COMMITTEE

A public meeting in celebration of the plans and accomplishments of the Emergency Child Health Committee will be held Wednesday, Dec. 12, at 10 a. m., in the Forum of the Educational Building, Harrisburg. Thousands of the leading citizens of the State will be invited in the name of

the Governor, the President of The Medical Society of the State of Pennsylvania, and the Chairman of the Committee.

Governor Pinchot will speak. Others having a place on the program include representatives of the State Federation of Pennsylvania Women, of the Pennsylvania Congress of Parents and Teachers, and of our Society.

It is hoped that members attending the dedication ceremonies will remain in Harrisburg to take part in this meeting on Wednesday.

MODEL HEALTH INSURANCE BILL PREPARED

A model State Health Insurance bill to be presented to the Pennsylvania Legislature this winter by the American Association for Social Security retains many unsatisfactory features of the European types of health insurance. The benefits are to include not only all forms of medical and dental service, including hospital, nursing, laboratory, etc., but are to include the much criticized feature of cash benefits paid while sick.

State Compulsory Health Insurance as proposed by the Social Security Group is to be financed: (a) by charging each employer of three or more employees (each earning up to \$3000 annually) 1.5 per cent of his payroll; (b) by deducting from each employee's envelope 3 per cent of his pay; (c) by payment on the part of the State (taxpayers) the equivalent of 1.5 per cent on all the subjected payrolls. Even employees of State and other governmental subdivisions and their families are to be insured if they too earn \$3000 or less annually.

Employer, employee, and taxpayer alike will resent this type of compulsory assessment, but they must be informed before Congress or the Legislature convenes. Who is to inform them if not physicians, dentists, nurses?

ECHOES OF THE WILKES-BARRE MEETING

The 1934 or Eighty-fourth Annual Session of The Medical Society of the State of Pennsylvania will, we believe, be referred to for many years by those who attended as "The Wilkes-Barre Session." This title, when used, will reflect the appreciation of those who use it for the many enjoyable features of an annual session of a State Society which spring only from the earnestly hospitable endeavors of the members of the County Society acting as host to anticipate every need and wish of their guests. All of these attributes and more were outstanding in the thoughtful planning and activities of the Luzerne County Medical Society—a professional group knit unusually close together by the ties not uncommon to purely scientific organizations.

Dr. Guthrie's Address

The activities of the 1934 House of Delegates, whose transactions are published in this issue of the JOURNAL, are worthy of careful reading by every member of the Society. He who would read them intelligently will have at hand also the September issue of the JOURNAL in which, with 3 exceptions, appear the reports of Officers and Committees, which were the subject of many of the deliberations of the House. One of the exceptions is the address of President Guthrie to the House of Delegates. The Reference Committee to which it was referred urged every member of the Society to read this address studiously. (See page 101.) We believe its acceptance and approval by the House had much to do with the quieting of complaints regarding the treatment of physicians participating in State-wide Emergency Medical Relief service. We are equally confident that the action of the House of Delegates, speaking for all component societies in continuous support of our high principles toward the care of the unfortunate, in spite of greatly reduced payments, won for our membership increased respect from the State Emergency Relief Board, and all others acquainted with the contributions of the medical profession to the State-wide relief program. By all means read Dr. Guthrie's address.

Compensation Laws

We would next call your attention to the Supplemental Report of the Committee on Workmen's Compensation Laws appearing in the Minutes. This recently organized Committee, whose report was enthusiastically received (with great applause), has considered every angle and contacted every agency involved in Pennsylv-

nia's first form of Social Insurance. You are urged to read this report carefully in order that you may discuss it intelligently this fall and winter with the legislative representatives from your district.

Health Insurance

Your attention is drawn to the discussion in the Minutes of the Minority Report on one division of the report of the Committee on Medical Economics. When you have read it, we trust that you will turn to page 1093 of the September JOURNAL and read with equal care the report prepared by the same member of the Committee and dealing with the effects of Compulsory Health Insurance in Germany, England, and France. From this latter report you may gain much authoritative information and opinion with which to refute unqualified interpretations of said effects by those who would at this time thrust the same type of sickness service upon the State of Pennsylvania. You need the information contained in the September JOURNAL if you are to do your full duty to the people of Pennsylvania and their legislative representatives in warding off these impractical and destructively expensive schemes.

Hospitalization Insurance

Your attention is drawn in the Minutes to the communication from the Catholic Hospital Association of the United States and Canada. You will be interested in its proclamation of adherence to principles involving medical and hospital practice, personal relationships, moral obligations, predominance of medical influences in hospitals, which together with the nation's health and welfare are endangered, in the opinion of this Hospital Association, by plans for Hospitalization Insurance, *etc.*

Medical Relief

Read in the Minutes the Resolution from the Schuylkill County Medical Society expressing their dissatisfaction with the administration of State Emergency Medical Relief; also the Resolution on the same subject introduced by the Northampton County Medical Society. Follow this by a reading of the recommendation of the Reference Committee on New Business on the report of the Medical Advisory Committee to the State Emergency Relief Board. You may thus develop more comprehensive respect for the merging of local sentiment into a State-wide amalgamation based on high principles which is possible only with a democracy that makes for unified support of high purposes.

Contract Practice

The Minutes of the second session devoted to consideration of the reports of the House of Delegates' own Reference Committees is replete with interest, expressions of approval, criticism, and a dash of "fireworks." For instance, Dr. Borzell's Committee takes issue with a reference in the Board of Trustees' report to a Board Committee's published report (see page 1087, September JOURNAL) designating it as being *complete* and *detailed*. This Reference Committee, noting same, expressed "the opinion that this report was neither *complete* nor *detailed*." The Reference Committee of the House headed by Dr. Brumbaugh, to which the Board Committee's report has been referred, noted that the Committee had made a careful study of contract practice in the various schools and recommended approval of this Board Committee's report, only to have after considerable debate, a substitute motion prevail which resulted in the creation of a Committee of the House to study the same problem and to report to the 1935 House of Delegates.

We trust that our very sketchy comments on this Committee's report and its reception will stimulate our readers to read, first, the Medical Economics Committee's report on Contract Practice (see page 1091, September JOURNAL); second, in the same JOURNAL, the report of the Committee to Study and Report on Forms of Medical Practice in State-Owned Schools and Colleges; and third, the Minutes detailing the controversial discussion in the House.

Note the Economics Committee's lament as follows: "Your Committee has read and digested, over the past 18 months, practically every comment written on contract practice, and their number is legion; if twice as much had been written or read it cannot add to nor subtract from the ethical principles of the American Medical Association"; also the following statement: "To curb abuses of contract medical practice no one definition or one set of rules will cover every case now existing, nor those as yet unborn."

New Duty for Censors

In your review as suggested in the above paragraph please do not fail to note the instruction to component societies approved by the House to adopt the suggestion of the Committee on Medical Economics to the effect that the Board of Censors of county societies add to their existing duties the examination of "all contractual medical service agreements entered into or about to be entered into by its members."

Miscellaneous

In addition to the actions above referred to, the House of Delegates was placed on record as approving the action of the 1934 House of Delegates of the American Medical Association in its criticism of the ill-advised pronouncements of the American College of Surgeons favorable to various forms of sickness and hospitalization insurance.

The House approved of the appointment of a committee to investigate and report, in 1935, on the advisability of restrictive regulations as to the sale of certain hypnotic and analgesic drugs.

The House also approved the opinion of the Committee on Medical Economics that intelligent treatment of many cases "requires a social as well as a medical appraisal, and that the medical profession's attitude toward medical social service should be understanding and coöperative."

Conclusion

In conclusion we urge all members of our State Society to read the Minutes of the 1934 House of Delegates from beginning to end, seeking therefrom information and opinion and approved judgment on questions of policy which each member should feel in duty bound to discuss intelligently with his fellow members or with his clientele or his representatives in the Legislature.

THE TIE THAT BINDS

Are you skeptical of the popular support of the oft repeated statement that the maintenance of personal relations between physician and patient is essential to the best results possible in the practice of medicine, whether it be private practice or with a semipublic phase? If you are thus skeptical we would respectfully call your attention to figures from the office of the State Auditor of Accounts for Medical Service under current Emergency Medical Relief. These figures relate briefly but impressively the fact that medical orders entitling thousands of relief beneficiaries in Allegheny County to the services of the physician of their choice have been taken by said beneficiaries in the first 10 months of the free medical service, to a total of 860 physicians. This experience in Allegheny County, in which one-half of the practicing physicians have been chosen by individuals or families receiving medical relief, has been repeated in every county in Pennsylvania. This method of distributing medical service to those unable to pay, now in operation 11 months, reflects great credit on the ability

of the organized medical profession in each county to sponsor the quality of medical service to the unemployed and to supervise the fees charged for such service as manifested in the bills rendered to the various County Emergency Relief Boards.

The State Emergency Relief Board, thoroughly pleased with the manner in which the medical profession throughout the State adhered to its own established principles of service throughout the summer months when funds were totally inadequate to pay physicians the fees originally agreed upon, have, since the meeting of the 1934 House of Delegates of The Medical Society of the State of Pennsylvania at Wilkes-Barre, and since their funds have become better stabilized, authorized a very considerable increase in the monthly relief allotment for Emergency Medical Relief service.

EXECUTIVE DIRECTORS— QUO VADIS?

The Public Relations Committee of our State Society in a communication reminds us that not all foundations strive for the rapid socialization of sickness service and for the regimentation of our people in the low income groups, as well as the physicians from whom they may seek advice and treatment.

It is pointed out that the Rockefeller Foundation, faithful to its charter, continues to give thought to mankind as a whole. Health for the world, which is its prime object, is sought by means of liberal appropriations to the training of nurses and physicians, to programs in medical research, and to the work of health departments. Thus the Rockefeller Foundation strives toward increasing the normal span of life, with decreased illness throughout that span. How far removed in the long run from the fundamentals that control the destiny of mankind are the endeavors of some other foundations that, shunning the world of science, follow social theories in the control of sickness which, where tried in Europe, have vastly increased the totals of time lost due to sickness by paying persons cash for being sick!

The very fact that the great majority of the 100,000 actually practicing physicians in the United States are opposed to European types of socialization of the forms of private medical practice strongly suggests an unselfish basis for such remarkable unanimity. Physicians are perfectly sincere in their belief not only that compulsory forms of sickness insurance under government control will quickly prove destructively expensive to the taxpayers, but also that the re-

sults in reduced sickness and lessened death rates will be as disappointing here as they were in Germany and are in England.

Physicians are free to admit that perfection has not been attained under any form of medical practice existent in the past 75 years, but the forms have changed considerably in that time, gradually or imperceptibly at certain periods, but always in the direction of better medical service to more persons farther and farther removed from medical teaching centers or extensive hospital facilities.

The foundations (Milbank, Twentieth Century, etc.,) that are spending millions in propaganda for compulsory health insurance would be surprised at the improvement they could effect by devoting their resources to such practical uses as the eradication of poverty, rather than the diversion of public funds to the costly governmental bureaucracy on which compulsory health insurance rests.

The medical and allied professions will not be thus regimented if each member will do that which he rather passively hopes will be done for him by others—take steps to arouse public opinion, each in his own circle of contacts.

CONTRIBUTIONS TO MEDICAL BENEVOLENCE FUND

The Committee on Medical Benevolence gratefully acknowledge the following contributions to the fund:

Woman's Auxiliary, Mifflin County Medical Society	\$20.00
Woman's Auxiliary, Wyoming County Medical Society	10.00
Woman's Auxiliary, Lawrence County Medical Society	13.50

Total contributions since 1934 report \$509.00

ACKNOWLEDGMENTS

August 28, 1934.

DEAR DR. DONALDSON:

I am in receipt of your Society's Booklet with the title "Summary of Pennsylvania's Poor Relief Laws Affecting Care of Indigent Sick." It is one of the best things I have seen gotten out on this subject. It is so good that I would like to have 15 or 20 copies. I do not think it would be fair to ask you to donate these and I therefore say that we will be glad to pay whatever you suggest is the proper charge for these 20 copies.

Thanking you, I remain

Sincerely yours,

L. B. McBRAYER, *Secretary-Treasurer,*
Medical Society State of North Carolina.

October 16, 1934.

WALTER F. DONALDSON, *Secretary*,
THE MEDICAL SOCIETY OF THE STATE OF
PENNSYLVANIA.

DEAR DR. DONALDSON:

We, as dentists, desire to express our thanks to you for creating an opportunity, through Dr. A. L. Luchi, to participate in your scientific exhibit at your recent Wilkes-Barre Meeting. We feel that coöperation between our two professions is greatly helped by such experiences and we hope that our State Dental Society will be invited every year to furnish a similar exhibit. We are sending you a complete set of pictures of our exhibits, because we fully realize that many physicians did not see the results of our efforts. Perhaps they might be printed in one of your bulletins.

Ever gratefully yours,

J. B. FLANAGAN, *Chairman*.

ALLISON H. MILLER, *Secretary*.

Committee on Arrangements.

PAYMENT OF PER-CAPITA ASSESSMENT

The following payment of per-capita assessment has been received since Sept. 13. Figures in first column indicate county society numbers; second column, State Society numbers:

Sept. 13	Erie	148-149	7832-7833	\$15.00
17	Lackawanna	228-231	7834-7837	30.00
20	Lancaster	173-174	7838-7839	7.50
21	Berks	164	7840	7.50
24	Philadelphia	2085-2149	7841-7905	330.00
25	Somerset	40	7906	7.50
	Lycoming	120	7907	7.50
28	Montgomery	175	7908	7.50
29	Luzerne	316-318	7909-7911	22.50
	Indiana	51	7912	7.50
	Allegheny	1302-1308	7913-7919	37.50
Oct. 4	Venango	53	7920	7.50
	Fayette	116	7921	7.50
	Clearfield		7922	3.75
	Philadelphia	2150-2180	7923-7953	135.00
10	Lackawanna	232	7954	7.50
11	Luzerne	319-320	7955-7956	15.00
	Tioga	23-24	7957-7958	15.00
	Montgomery	176	7959	7.50

CHANGES IN MEMBERSHIP OF COUNTY SOCIETIES

The following changes have been reported to Oct. 10:

ALLEGHENY: *New Members*—Hymel Fishkin, Creighton; Frank F. Schade, Municipal Bldg., Aspinwall; Elmer S. A. King, 1510 Methyl St., Jennings M. King, 3700 Fifth Ave., Pittsburgh. *Reinstated Members*—Ernest G. Kuhlman, 121 University Place; J. Everett McClenahan, Mercy Hospital; Robert P. Saling, 4700 Center Ave., Pittsburgh. *Deaths*—Harry W. Oyer, Pittsburgh (Jeff. Med. Coll., '93), Aug. 2, age 40; Wylie J. Stewart, Coraopolis (Univ. Pgh., '00), Aug. 26, age 61.

BERKS: *Reinstated Member*—John A. Focht, Jr., Wernersville.

CLEARFIELD: *New Member*—Roger E. Phillips, 120½ Front St., Philipsburg.

ERIE: *Reinstated Members*—Alex. C. Cameron, 533 W. Ninth St., George S. Dickinson, 318 W. 10th St., Erie.

FAYETTE: *Reinstated Member*—Earl F. Harris, 134 S. Pittsburgh St., Connellsville.

FRANKLIN: *Transfer*—Joseph W. Harshberger, Chambersburg, from Juniata County Society.

INDIANA: *Reinstated Member*—John A. Elkin, Smicksburg.

LACKAWANNA: *Reinstated Members*—Paul E. Brown, 244 Prescott Ave., H. Karl Dimlich, 1735 Sanderson Ave., John F. Kelly, 1638 N. Main Ave., John Kulczycki, 429 Pittston Ave., Scranton; G. L. Higgins, 15 Park Place, Carbondale. *Death*—Robert B. McKeage, Scranton (Med. Chi. Coll., Phila., '93), Oct. 3, age 65.

LANCASTER: *New Members*—Carl Hoover, 450 W. Chestnut St., Lancaster; Arlem B. Schlott, Main and Lake Sts., Ephrata.

LEHIGH: *Death*—Joseph M. Weaver, Allentown (Med. Chi. Coll., Phila., '06), Oct. 6, age 52.

LUZERNE: *New Members*—John P. Zaworski, Jr., 69 Moffett St., Plains; Eugene F. Wolfe, 10 Main St., Shickshinny. *Reinstated Members*—I. M. Stadulis, 559 Fellows Ave., Lyndwood, Wilkes-Barre; Charles Hayden Phillips, 221 S. Franklin St., Wilkes-Barre.

LYCOMING: *Reinstated Member*—James S. Mosher, 663 Franklin St., Williamsport.

MONTGOMERY: *New Member*—John Eiman, Bala-Cynwyd. *Death*—Ambrose C. Herman, Landsdale (Univ. Pa., '81), Aug. 31, age 76.

PHILADELPHIA: *New Members*—Samuel Bellet, 1818 Pine St.; Leo M. Bidus, 160 E. Allegheny Ave.; Vincenzo Boccella, 1316 Morris St.; Ralph Clarke Bradley, 6357 Greene St.; Robert Blakemore Cadman, 49 E. Cliveden Ave.; John B. Claffey, 606 N. 64th St.; Hunter Summers Cook, 235 N. 15th St.; Carlo M. DeMarco, 383 Windermere Ave., Lansdowne; Sol Arthur Goldberg, Chew and Horter St., Gtn.; Samuel Levine, 7358 N. 19th St.; Joseph I. Levy, 252 W. Roosevelt Blvd.; W. Gordon McDaniel, 1325 W. Erie Ave.; Lowry Allen Moore, Fairfax Apt., 43d and Locust Sts.; Zachariah Boardman Newton, 5903 Greene St., Gtn.; Harold Eugene Ramonat, 5702 Chester Ave.; Benjamin Robinson, 5214 Sansom St.; Henry Frank Roepke, 1212 E. Chelten Ave.; Albert P. Seltzer, 1330 N. Franklin St.; Clarence Leware Shollenberger, 4907 Parkside Ave., N. Wynnefield; Dewey A. Snyder, 5728 Chester Ave.; Francis Villone Spagna, 1207 S. Broad St.; Michael Susman, 529 Pine St.; John Winfield Sykes, 4414 Manayunk Ave., Roxborough; Charles A. W. Uhle, 1616 Locust St.; John Moyer Wetherhold, 413 S. 40th St.; Sidney L. Wingrade, 5003 "C" Street, Olney, Philadelphia. *Reinstated Members*—Maurice A. Bunce, 1320 N. 18th St., Maxwell B. Brenner, 2919 Richmond St., J. Allen Bertolet, 329 S. 18th St., William F. Horan, 6309 Overbrook Ave., Wallace Martin, 6642 Torresdale Ave., J. W. McConnell, 20th and Chestnut Sts., Arthur McGinnis, Logan and Greene Sts., Benjamin O. Oliver, 246 S. 23d St., Frank S. Orland, 2010 Pine St., A. E. Smethurst, 2249 N. 13th St., Norman H. Taylor, 100 W. Evergreen Ave., Joseph A. Langbord, 2045 Spruce St., Robert S. Alston, 121 W. Walnut Lane, Gtn., Joseph P. Garvey, 3607 Baring St., William Charles Wood, 1930 Chestnut St., Philadelphia. *Removal*—Victor Sherman from Philadelphia to Norristown, R. D. 4. *Transfer*—J. Stuart Lawrance, 230 N. Fifth St., Reading, to Berks County Society. *Deaths*—Samuel P. Gerhard, Philadelphia (Med. Chi. Coll., Phila., '91), July 8, age 67; T. Chalmers Fulton, Philadelphia (Jeff. Med. Coll., '80), Sept. 28, age 80; William Orlando Martin, Philadelphia (Med. Chi. Coll., Phila., '98), Oct. 3; William W. Van Dolsen, Philadelphia (Atlantic Med. Coll., '09), Oct. 3, age 48; J. Clarence Knipe, Philadelphia (Jeff. Med. Coll., '90), Sept. 2, age 65; William C. Posey, Radnor (Univ. Pa., '89), Sept. 5, age 68; Charles H. McDevitt, Philadelphia (Univ. Pa., '00), Sept. 11, age 58.

SOMERSET: *Reinstated Member*—Albert M. Uphouse, Stoyestown.

VENANGO: *Reinstated Member*—P. Emery Huth, Franklin.

WASHINGTON: *Death*—Alex. N. Booth, Bentleyville (Jeff. Med. Coll., '87), Sept. 28, age 70.

County Society Reports

BEAVER

Sept. 13, 1934

The September meeting was held, as is the annual custom, at the Beaver County Sanatorium, with a total attendance of 125, consisting of the doctors and their wives. Ruth Wilson, assistant medical director of the Sanatorium, presided.

Frederic Maurice McPhedran, of the Phipps Institute of Philadelphia, gave an illustrated address on "Tuberculosis in Infancy, Childhood, and Adolescence," summarizing the experience gained from 10 years' work at the Phipps Institute. He said in part:

The primary problem in the treatment of tuberculosis is rest, either in bed or by pneumothorax, phrenicectomy, thoracoplasty, or whatever measure is applicable to the particular case. Tuberculosis is a complex disease, distinctly different in infancy than in the adult. In infancy, tuberculosis involves the lymph glands of the hilus. There is dissemination from the glands to other parts of the body. If tuberculosis is confined to lymph nodes, it is a benign disease. Trouble results if it is carried to the bones, joints, spine, meninges, or kidneys. One of the major problems is to learn how to prevent dissemination. The greatest source of danger to the infant or child, according to statistic studies, is the individual in a household with a positive sputum; and if money is to be spent for tuberculosis prevention, it should be to take care of the individual with the open sputum. Tuberculosis is a very serious disease to the infant. From age 3 to 14 is the period of comparative high resistance to tuberculosis. After that time is the high incidence of tuberculosis of the adolescence. Infancy and adolescence are the times to avoid tuberculosis.

The speaker illustrated with numerous plates that the clinician must depend upon roentgenograms for the first evidence of invasion in tuberculosis, and on the healing and progress of the disease. He demonstrated numerous plates in which the patient, notwithstanding gain in weight, and having few physical symptoms showed advancement of the lesions in roentgen-ray studies which eventually prove the only safe means of following the progress of the disease. When roentgen ray shows advancement of the lesion, the patient should be adequately treated irrespective of the lack of physical signs or clinical progress. Frequent roentgen-ray studies are absolutely necessary in the intelligent treatment of tuberculosis. Amongst the conditions often seen in childhood that has to be differentiated from tuberculosis is chronic bronchopneumonia, characterized by frequent spells of fever associated with severe cough, the patient being prostrate for several days at a time. On roentgen-ray study this condition shows flocculent shadows around the heart and along the surface of the diaphragm. This condition is usually caused by diseased sinuses. It should be treated by prolonged rest in bed. An autogenous vaccine is sometimes of help. In tuberculosis the patient as a rule coughs but little; whereas, in nontuberculous bronchopneumonia the cough is pronounced.

In adolescence the tuberculous lesion makes its appearance most commonly at the apex. From age 15 to 26 there is a great tendency for tuberculosis to spread and it requires constant observation to promote healing. The sedimentation test is not always reliable in young people. In case of doubt, numerous specimens of the sputum should be examined until tuberculosis is definitely eliminated. In the treatment of tuberculosis, pneumothorax has been a great aid in securing rest of the lung

particularly when there is cavitation. Pneumothorax is a safe measure even in infancy.

Charles H. Marcy, Pittsburgh, emphasized the improvement in the methods of the control of tuberculosis in the past 20 years, stating that the stethoscope is useless in the diagnosis of tuberculosis in children and one must depend upon the roentgen-ray study.

Dinner was served, after which the Aliquippa High School Band gave an open air concert.

Oct. 11, 1934

The meeting was held at the Rochester General Hospital, President James L. Whitehill presiding. Fred B. Wilson, the delegate to the State Society meeting at Wilkes-Barre, gave a report of the meeting, particularly emphasizing the splendid scientific exhibit.

The Scientific Session of the meeting was conducted by representatives of the Westmoreland County Medical Society, whose president, Oscar B. Snyder, introduced the speakers for the afternoon.

Charles D. Ambrose, Ligonier, presented the following report of "Endocrine Infantilism," illustrated with lantern slides: Male, age 20, living on a farm, one of a family of 9; with a negative past history, apparently normal intelligence, weight 124 lbs., and is 5 feet in height. He has a fat round body, with a soft tender skin and shows a lack of pubic hair, underdeveloped male sex organs, and has never shaved. Physical examination negative; basal metabolism, 3; blood pressure, 92/58; laboratory studies, negative; urine, normal. Roentgenograms of the knees and wrists show an epiphyseal development of about age 14. Ambrose stated that he knew of no medical treatment that will bring this boy to a normal sexual and physical development.

John I. Wiseman, clinical director, Torrance State Hospital, read a paper on "Hereditary and Environmental Factors in Mental Diseases," and said in part: Certain diseases such as hemophilia, pernicious anemia, diabetes mellitus, renal glycosuria, skin diseases, asthma, and other allergic conditions, and numerous nervous and mental diseases show definite genetic transmission. The physician is often called upon to decide on a question of desirability of certain individuals marrying or having children. In the organic psychoses, such as arteriosclerosis, syphilis, tumor, *etc.*, inheritance plays a relatively unimportant part; while in the nonorganic group, dementia precox, manic depressive psychoses, idiopathic epilepsy, *etc.*, heredity plays a very important part. In the inorganic psychoses, it is extremely frequent to find the prepsychotic personality to contain characteristics which can be recognized as belonging to a special type upon which these forms of mental disease are prone to occur. The schizoid or introvert type has a tendency to withdraw within himself and to build up a world of dreams. The extrovert type has a tendency to throw himself into the world about him and he constitutes the energetic and practical man, and the sensual enjoyer of life.

In the consideration of hereditary possibilities, it is found that of the children of a schizophrenic, 8 to 10 per cent will probably themselves be schizophrenic; 34 to 42 per cent will show schizoid personality; and only about half will be normal. If both parents are schizophrenic, half the children will be schizophrenic; 30 per cent, schizoid; and 20 per cent, normal. Of the children of a manic depressive parent a third will have the same disorders, and another sixth of the children will show milder mood disorders. If both parents have manic depressive illness, two-thirds of the children will be manic depressive and the remaining one-third will show milder mood disorders.

It is now recognized that the hereditary characters are the product both of the environmental stimuli and hereditary predisposition. Much may be accomplished by therapy for the affected individual. The degree to which environmental factors determine the manifestation of hereditary predispositions is variable. With regard to the problem of these individuals marrying and procreating, the physician must study the family history carefully, as well as the individual himself before he can give sound advice. It may be said that no person with a transmissible mental disorder should procreate. The union of 2 families having the taint is bad. The probability of mental disorder in the children of definite schizophrenics is so high that one would advise all persons who have passed through a severe illness of this kind not to have children. The same applies to the manic depressive. However, no hard and fast rules can be suggested, and the cases must be studied individually.

Robert C. Johnston, New Kensington, read a paper on "Acute Intestinal Obstruction—Diagnosis and Treatment." He said in part: Acute intestinal obstruction is always a surgical problem and the promptness of operation is in direct ratio to the resulting mortality. The subject under 4 headings was discussed.

1. Intussusception: This is primarily found in children and is due to developmental defect in the ileocecal mesentery. The sudden onset of pain followed by emesis and a mucohemorrhagic stool plus a progressive increase in peristalsis with accompanying abdominal distention should be considered sufficient symptoms for surgical intervention even if it were not possible to palpate the abdominal tumor. The speaker referred to a case in which a tentative diagnosis of acute appendicitis was made in a child, age 7, that proved at operation to be a massive intussusception. Continuous venoclysis of 5 per cent glucose in normal saline following operation, plus nasal lavage, was advocated.

2. Ileus: This is classified as dynamic and adynamic; the former follows most frequently operations for acute abdominal disease, and the latter is a paralytic phenomenon accompanying peritonitis or general constitutional disease. The definite differential diagnosis between the 2 types often can be established by the use of a spinal anesthetic, which in dynamic ileus will result in an evacuation of the bowel within half an hour. Pain as a symptom is often misleading as it may only be a discomfort or a dull ache. Emesis is of great significance. Auscultation of the abdomen is most important for diagnostic purposes. Is peristalsis normal, spasmodic, or segmental? Bartlett recently has pointed out the importance of the transmission of the cardiac and respiratory sounds to the left lower quadrant of the abdomen as an important diagnostic sign in ileus. Operation in these cases is urgent at the earliest moment. Avoid all unnecessary trauma or handling of viscera at operation. Intestinal drainage is maintained either by a Levine tube passed through the nose into the duodenum or an enterostomy tube in the small bowel. Following operation the patient is not permitted to stay in dorsal decubitus for long periods. Sufficient fluids are given by the subpectoral route or by venoclysis.

3. Strangulation: This type arises from accidents secondary to operations in the peritoneal cavity due to a loop of bowel adhering to or becoming incorporated in a postoperative area. Twenty-four to 96 hours following operation the patient is suddenly seized with severe colicky pain followed by emesis, active peristalsis, abdominal distention, failure of relief by an enema, and a change in the blood picture. Immediate operation is called for. (This type may not occur until weeks, months, or years following operation.—Editor.)

4. Volvulus: This is considered an obstruction produced by neoplasms, congenital or acquired bands, or defects in the peritoneal cavity. The neoplasms may be either benign or malignant arising in any part of the abdomen from any organ. The ability to palpate a mass aids greatly in the early diagnosis.

The subject of acute intestinal obstruction may be summarized as follows: (1) Early recognition of obstruction and prompt relief by operation; (2) maintenance of fluid balance by the use of 2000-5000 c.c. daily of 5 to 10 per cent glucose in normal or hypertonic saline, intravenously, subcutaneously, and by proctoclysis; (3) adequate drainage of the intestinal tract by a Levine or Jutte tube by the pharyngeal route and/or by some type of ostomy, together with lavage of the gut if needed to keep it free from the hypersecretion; (4) frequent laboratory examination, to determine chemical balance and the daily Schilling record for blood depletion; (5) no radical surgery in the acute stage if avoidable by any other methods; (6) 2 stage surgery gives lowest mortality; (7) judicious use of regulated physical stimuli to prevent hypostasis.

L. H. LANDAY, *Reporter*.

CHESTER

Sept. 13, 1934

The meeting was held at the Plymouth Country Club, Norristown, in conjunction with the other county societies of the Second Councilor District. (See report of Second Councilor District Meeting, October JOURNAL, p. 54.)

JOSEPH SCATTERGOOD, Jr., *Reporter*.

DAUPHIN

Sept. 4, 1934

The meeting was held in the Academy of Medicine Building, President E. Kirby Lawson in the chair.

A symposium on "Homeopathic Principles," was given by George W. Hartman, Ralph E. Pilgrim, and Roscoe L. Perkins. The following is a résumé of their papers:

Dr. Hartman: Homeopathy, defined, means dealing therapeutically with disease by the law of "similars." The cardinal principles are: (1) The establishment of the range and effect of a drug by human experimentation; (2) the administration of drugs as based on the totality of symptoms; (3) administration of one single remedy; (4) administration of drugs in their minimum effective dosage.

To prove the efficacy of a drug it should produce in normal individuals the same symptoms it is expected to correct. The use of cowpox serum to prevent smallpox is one of many examples that should be presented. Homeopathy need not and should not conflict with any principles in the entire field of medicine but should augment. The small dose is not of itself a part of homeopathic principles but rather a valuable adjunct to it.

Dr. Perkins spoke on "The Therapeutic Application of Drugs." He stressed that the selection of a drug based on the totality of symptoms rather than a mixture prescribed haphazardly is greatly desired and more efficacious. He presented a long list of drugs as a fair representation of the drugs used in homeopathy and gave their indications as based on totality.

Dr. Pilgrim spoke on "Homeopathic Pharmacy," defining drugs as substances which have the power of disturbing the healthy living organism; hence, substances primarily toxic or pathogenic are secondarily medicines when prescribed in disease. Tinctures are

made from fresh plants only, which practice is peculiar to the homeopathic school. These tinctures are more constant than those made from the dried plant, which in the drying process has a chance to undergo chemical changes and deteriorate in strength.

In pharmacodynamics the action of drugs may be classified as toxic, pathogenic, physiologic, and dynamic. To obtain the dynamic action of a drug it should be prepared by succession or trituration with a nonmedical substance. This produces a change with the release and development of the dynamic power of the drug so triturated. This increase of potency was designated by Hahnemann as "potentizing." Each trituration is spoken of as a potency third to sixth, *etc.* Hahnemann preferred the thirtieth potency.

At the close of the business meeting a social hour was held.

Oct. 9, 1934

The meeting was held in the Academy of Medicine Building, Harrisburg, at 8:30 p. m., President E. Kirby Lawson presiding.

C. Geschickter, Research Department, Johns Hopkins Medical School, read a paper on "Tumors of the Breast." He said in part: Any information which will aid the physician to diagnose more accurately tumors of the breast, benign from malignant, preventing the unnecessary removal by radical breast amputations, is much needed.

There are 2 primary benign tumors of the breast: Xanthoma or fat necrosis; and plasma cell mastitis or so-called chronic residual lactation mastitis. The former is the result of trauma, hemorrhage, and disintegration of fat followed by granulation tissue infiltrated with calcium, resulting in a hard small mass. This tumor is usually superficial, without skin fixation. If large the overlying skin suggests necrosis or inflammation.

Plasma cell mastitis usually is found following a history of previous trouble during lactation. The tumor may appear 5 to 10 years after the last lactation. All the classic signs of cancer may be present, retraction of the skin and nipple and opacity to transillumination. There may be enlarged axillary glands but these are usually soft. The absolute diagnosis depends on a biopsy which discloses residual lactation hypertrophy, invasion of many plasma cells, round cells, and sclerosing fibrous tissue.

Benign tumors of the breast include fibro-adenoma, papilloma, and the hypertrophies and hyperplasias known as gynecomastia, virginal hypertrophy, and chronic cystic mastitis. In a review of cases at the Johns Hopkins Hospital for the past 40 years there were 3000 benign lesions to more than 2000 carcinomas. Gynecomastia in the male and virginal hypertrophy in the female are related phenomena. Gynecomastia is seen at puberty or with the decline of sexual powers in the adult whereas the corresponding hypertrophy in the female always dates back to adolescence.

An understanding of the endocrine control of these conditions enables one to rule out malignancy. Fibro-adenoma always occurs in a well-developed breast. The onset can be traced to the period of puberty before the onset of menstruation. The pathology shows an enlargement of the ducts with an increase of the surrounding connective tissue. Fibrous tissue is abundant, the epithelial layers of the ducts increase, and acinar elements are either sparse or lacking. The fibro-adenoma is definitely encapsulated, freely movable, and enlarges with pregnancy. It may make its appearance after childbirth or toward the end of gestation.

The breast and ovaries removed at necropsy before

menstruation will show in the breast an enlarged nipple and increase in length and diameter of the ducts surrounding fibrous tissue. The ovary will show increased number of follicles which have undergone atresia without ovulation. It is known that this follicular stimulation controls the development of the breasts due to the hormone estrin, folliculin, or theolin; and it is further stimulated by the sex hormone of the anterior pituitary.

The proof that estrin will cause enlargement of the breasts comes from both pathologic and experimental data. If the urine and blood are assayed in girls under age 2 who show breast and menstrual development, both the pituitary and estrin hormones will be found. Biopsy of the ovaries of such patients will reveal cysts lined with granulosa cells and so-called thecalutein cells, known to secrete estrin. Estrin injected repeatedly into male monkeys will cause a condition in their breasts like virginal hypertrophy and gynecomastia of the male. This condition is seen both grossly and pathologically. Many girls receiving estrigenic hormone for the treatment of gonorrhea or vaginitis will show enlargement of the breast and nipple.

These findings and observation establish that gynecomastia and virginal hypertrophy are definitely hormonal. Fibro-adenoma may also be the result of increased hormonal secretion which was further substantiated by the production experimentally of fibro-adenoma by the injection of estrin hormone. The clinical significance is: (1) Establishing a diagnosis by bio-assay of the blood, urine, or tissues showing an increase of the hormone levels; (2) control of such conditions by suppression of testicular or ovarian activity by an antagonistic hormone (prolactin); (3) hypertrophy and neoplasm can now be classified, one as the abnormal hormonal stimulation on normal tissue, benign; the other as hormonal stimulation on abnormally susceptible tissue.

Disturbance in the regulatory phenomenon of the formation of milk or in the development of ducts and fibrous tissue of the breasts may lead to chronic cystic mastitis. Failure to bear children or lead a normal sexual life and the use of pasteurized milk may be responsible in some way with the prevalence of cystic mastitis. Thousands of women lose one or both breasts every year due to this condition. Its relation as a precancerous lesion is not well understood.

There are 2 forms of this disease, one characterized by the presence of one or more large cysts and the other by multiple indefinite nodules. The most frequent is the lump breast or adenosis or cystadenosis. Evidence is at hand to show that the hormone estrin is the causative agent in cystic disease; whereas progesterin, the corpus luteum hormone, causes adenosis.

Adenosis is found in small breasts of thin women who have had no children or a single child. The patient recently has lost weight and there is a tendency to hyperthyroidism and nervousness. Pain may be extreme before menstruation. Menses are scanty, irregular, and usually less than 28 days apart. The woman may be sexually frigid. The breasts do not transilluminate. The breast on palpation has a definite saucer-like edge; the outer and upper quadrant is caked or tender and numerous nodules small and discrete can be palpated. The patient is usually between age 30 and 40 and as the menopause approaches, definite cysts or intracystic papillomata may be found in the outer upper quadrant. The cysts may transmit light, darkly. At the menopause this condition shows a tendency to disappear and rarely does it survive pregnancy.

Cystic disease is found in a different character. The

breasts are large; there have been no pregnancies. The woman has gained weight and may be slightly above normal; she is easy going and has sexual desire. Menstruation is normal or the periods are slightly farther apart than 28 days. The breasts transilluminate well and if any cysts are present they transmit light also. Palpation shows a soft full breast, which may or may not contain other lumps beside the one complained. The cyst present may have appeared overnight and is large at the time discovered; it may be painful or painless. It fluctuates and may spontaneously disappear.

Pathologic examination of adenosis shows new epithelial elements in the periphery of the breast which clog the terminal tubules with small adenomas and papillomata. Invasion of the acinar zone and the surrounding fibrous tissue cause a nonencapsulated adenomatous area often mistaken for cancer. This is hyperplasia or proliferation of epithelium that can be duplicated by the injection of progestin into animals previously treated with estrin.

Cystic disease shows changes are due to the effect on preëxisting smaller lactiferous ducts and tubules. Dilatation of ducts and increase in maturity of duct cells which stain palely and finally desquamate is found in the cystic breast. Thus fluid is formed in the cysts, and since there is a disappearance of the lining cells cancer cannot possibly originate.

This process can be reduplicated in breasts by first causing a fibro-adenomatous condition by using estrin and then follow by causing a pseudolactation or subinvolution. SAMUEL BANCROFT FLUKE, *Reporter*.

FAYETTE

June, 1934

The meeting was held in the Uniontown Medical Hall, President L. Dale Johnson presiding. James E. Van Gilder read a paper on "Pernicious Anemia," and said in part: Pernicious anemia is recurring and usually fatal, caused by hemolytic agents and characterized by an embryonic type of hematopoiesis. It is a widespread disease and appears to be increasing. A disease of middle life and several cases may occur in one family. Although twice as common in males, under age 30 women are more often affected. The cause remains obscure. The bothriocephalus anemia is stated to be due to a lipid body that may be extracted from the worker. Oral sepsis and intestinal infection are supported and suggested by many arguments but there should be something in addition.

The body is rarely emaciated, and lemon tint of the skin is present in a majority of the cases. The muscles are intensely red in color and the fat is light yellow. Hemorrhages are common on the skin and serous surfaces. The muscle substance of the heart is intensely fatty and pale light yellow color; in no affection is there seen more extreme fatty degeneration. The spleen shows no special changes. The stomach in many instances is normal but in some fatal cases of anemia the mucosa is extremely atrophied.

Pernicious anemia makes its approach in so slow and insidious a manner that the patient can hardly fix a date to the earliest feeling of languor which is shortly to become so extreme. The appearance of the patient is very characteristic; the combination of a lemon yellow tint of the skin with retention of the fat gives a very suggestive picture. The entire surface of the body presents a smooth and waxy appearance and the lips, gums, and tongue seem bloodless. Palpitation and disturbances of the heart are common; murmurs are

rarely missed, generally hemic and basic. Apex diastolic murmurs may occur without valve lesions.

Paroxysms of pain in the stomach with or without diarrhea may happen in crises, occurring in one-half of the cases. Hydrochloric acid is practically always absent and this has been noted in some patients long before the onset of the anemia. The acid does not return during remissions. The more carefully the patients are studied, the greater the frequency of nervous lesions noted. Multiple neuritis may be a feature of the disease or due to arsenic.

Hemorrhages are not uncommon, chiefly in the form of small petechiae. Retinal hemorrhages are frequent. The total quantity of blood is much diminished, good color, but is abnormally fluid. The red cells are greatly diminished. The hemoglobin though quantitatively reduced, is relatively high. The disease may run a very acute course, from 6 to 12 weeks, but as a rule it is a chronic malady with remarkable remissions. The differential diagnosis should be made between secondary anemia, tapeworm, cancer, and syphilis. It is important to give hydrochloric acid in full doses twice a day. The drugs of most value are arsenic given as Fowler's solution in increasing doses; sodium cacodylate, hypodermically; arsphenamine in small doses. Gastric lavage and irrigations of the colon are useful in some cases. Transfusion is again in vogue; it is important to use homologous blood.

Liver extracts are specific and given orally, intramuscularly, or intravenously according to the individual cases. Therapy should be adequate and a sufficient quantity of the extract administered to prevent relapses.

Arthur E. Crow discussed "The Diagnosis and Treatment of Appendicitis," detailing several cases.

Robert H. Jeffrey read a paper on "Hernia." He said in part:

Inguinal hernia is the most common structural deformity in males. There are 3 varieties: Direct, indirect, and intraparietal, which were outlined. Treatment consists of surgery, except in the aged, the very young, and the very obese. High ligation of the sac is essential. The percentage of recurrence is higher than usually believed, varying between 10 and 20 per cent. The Bassini operation is usually not permanent.

Dr. Crow's paper was discussed by LeRoy C. Waggoner who stressed the importance of the various appendiceal positions. Fecaliths predispose to infection. Laxatives are dangerous. Pyelitis, especially in children, renders a diagnosis difficult. John D. Sturgeon, Jr., stated that pneumonia, chiefly in children, should be carefully considered before a diagnosis of appendicitis is made and that diarrhea does not rule out appendicitis.

Sept. 6, 1934

The meeting was held at the Connellsville Hospital, President L. Dale Johnson presiding.

Norman L. Kerr, of Westmoreland Co., presented the following case for diagnosis:

Man, age 75, complaining of generalized scaliness of the skin for a number of years, becoming progressively worse. Previously under continuous treatment of sodium theosulphate and thyroid extract. The blood count was suggestive of leukemia with the presence of 4 per cent eosinophilic metamyelocytes, but his condition has improved with the foregoing treatment. Physical examination essentially negative. Liver and spleen are not enlarged. No lymph adenopathy. No Bence-Jones protein was found in the urine. Differential diagnosis was chiefly between: Disturbances of the alimentary tract which has been shown to cause acne, seborrheic

dermatitis, urticaria, erythema multiformans as produced by faulty digestion or by the presence of bacterial endo- and exotoxins; disturbances of excretion as shown in cases of nitrogen retention producing eczema, urticaria, prurigo, and erythema multiformans; disturbances of metabolism which may act as a predisposing factor in the production of carbuncles and xanthomas; toxic factors producing the various erythemas, sarcoids, as caused by intestinal disturbances, tuberculosis, syphilis, or streptococcal infection; cardiovascular disturbances as varicosities, chilblains, gangrene, and purpura as caused by arterial inflammation, endarteritis, perivascular and vasomotor disturbances; hematopoietic disturbances as are present in toxic leukemias, Hodgkin's disease, and mycoses; endocrine disturbances as may exist in cases of alopecia, myxedema, hirsutism, urticaria, psoriasis, Addison's disease, acne vulgaris, and various pregnancy pigmentations.

Fred H. Harrison read a paper on "Rabies." He said in part: Only 16 per cent of humans bitten by rabid dogs develop the disease. Clothes form an important part of the protection. The nearer to the brain the bite is located, the shorter the incubation period. At the present time 2 types of serum are on the market: That treated by phenol, and that treated by chloroform. In 1928 army posts practically eradicated rabies in dogs by compulsory vaccination. This, however, was discontinued in 1934. In Kansas City there was a marked diminution in rabid dogs after compulsory vaccination. When the disease is developing in the dog early changes consist chiefly in increasing restlessness, beginning paralysis of the pharynx, difficulty in swallowing, and later paralysis of the hind legs, finally death. The following conclusions were formed as an aid to decreasing the number of rabid deaths in the United States: Destruction of stray or unlicensed dogs; isolation in doubtful cases; compulsory use of the muzzle; vaccination; education of the public; coöperation of the health authorities, general public, and dog owners.

Paul D. Luckey read a paper on "Eclampsia." He said in part: Eclampsia is characterized by a low urinary output in advanced cases of pregnancy with hypertension, convulsions, and too frequently death. Jesse O. Arnold, professor of obstetrics, Temple University Medical Schools, 4½ years ago began treating eclampsia by dehydration. He believed the convulsions were due to cerebral edema and he developed the slogan, "Empty the head and not the uterus." The treatment of eclampsia consists chiefly of spinal puncture; hypertonic saline and glucose intravenously; hypertonic magnesium sulphate through the stomach tube; use of very little diaphoretic drugs due to impaired cardiac function; morphine sulphate and barbiturates are used in severe cases but only when necessary; caffeine and digitalis are seldom used; the patient is bled only when spinal punctures cannot be instituted; a dietary regimen is carried out and dehydration is continued postpartum. The warning signs in advanced pregnancy are marked increase in weight of over 1½ pounds a week, increasing blood pressure and albuminuria. Dr. Luckey submitted a report of 600 deliveries; 2 per cent showed convulsions with 2 deaths, one death being due to embolism.

N. L. Sherrick, veterinarian, discussed Dr. Harrison's paper on rabies stating that a doubtful rabid dog never should be killed unless absolutely necessary but should be confined for a period of 10 days. If the dog lives, no therapy is necessary for the persons bitten. A rabid dog usually obeys his master except in the later stages of the disease. The single dose vaccinations once a year for 3 years will usually produce immunity.

Dr. Arnold, of Temple University, in discussing Dr. Luckey's paper stated that the reports he had received concerning the dehydration treatment are exceedingly encouraging and that mortality in his clinic is considerably less than existed previously. Chaos is supplemented by definite treatment. The quantity of urinary output gradually decreases after the middle of pregnancy. Experimentally the forcing of fluids has placed patients in preëclamptic states. The pituitary body enlarges inversely proportionate to the amount of urinary output. Patients in convulsions who have previously received pituitary extract during labor are usually harder to control.

RALPH L. COX, *Reporter.*

LEHIGH

Sept. 11, 1934

The meeting was held at the Americus Hotel, Allentown, President Frank S. Boyer presiding. The entire meeting was devoted to the passing of the following resolutions, which constituted the report of the local Public Relations Committee relating to community hospitals:

1. Community hospitals are civic enterprises having a primary charitable motive, undertaken by philanthropic laymen or religious organizations who assume the financial obligation of providing place, equipment, and personnel, and by philanthropic physicians who assume the obligation of providing medical care. Such a hospital is a joint enterprise to render aid to ill, indigent persons, the lay supporters contributing time and money as such, the medical supporters contributing time and money in terms of professional service.

2. In order to provide hospitalization for the non-indigent, such hospitals customarily maintain accommodation for the care of full-pay patients, as well as for the care of part-pay patients, who pay for this service according to their ability.

3. In any of these types of hospitalization, however, the hospital as a corporation provides room, board, nursing, and material, beyond which it has nothing to dispose of; at this point the medical staff enters the equation, as the essential element to make the service of a hospital whole and effective. Physicians serve by virtue of appointment, the appointment following upon invitation to the physician and his voluntary indication of his willingness to serve.

4. The staff physician's services are essential to the charitable purpose of the hospital; the acceptance of his appointment has a certain contract implication, viz., to perform gratuitously the professional service to make effective the hospitalization afforded gratuitously by the institution. A correlative implication of the contract should be: If the institution is recompensed for its service to the patient, the physician should be entitled to recompense also, and in the same proportion, for, if the hospital owes it to its supporting public to make the load of charity as light as possible, to be sure it owes the same duty to its supporting staff. Otherwise, the effect is that the lay supporters of the hospital (whether individual, State, county, Community Chest, or other), whose contributions of money are derived from incomes or activities, not interrupted by personal service to the institution, are relieved of part of their burden, whereas, the medical supporters bear the entire burden of their contribution so long as the making of an income is completely stopped while making the contribution.

5. This contribution to the hospital enterprise is not offset by any advantage offered by the hospital connection to the staff physician. His appointment is made

upon his professional qualifications, which he has attained by his own efforts and before he is invited to serve the hospital. If it be said that the hospital lends prestige to the staff, it is much more true that the prestige of the hospital depends upon that of its staff. This fact is an additional, if imponderable, contribution of the professional partner in the enterprise.

6. It is generally recognized that among the by-products which hospitals should offer the community are its facilities for the teaching of interns and nurses. If it be said that the opportunity of teaching is an advantage to the staff, offsetting their contribution of services, the fact is that such additional service is a further gratuity to the hospital, as it relates to the interns and pupil nurses. From the above considerations, the conclusion is unavoidable that good faith requires a hospital to exercise the utmost care to ask gratuitous services of its staff, for its charitable purposes only, and that, in consideration of its complete dependence upon the medical staff it should rigidly abstain from entering into competition with them by seeking any revenue from strictly medical services.

7. Hospitals, being corporations, their management—and consequently their policies of all sorts—are the proper and necessary prerogatives of their Boards of Directors. The organization of such Boards commonly has overlooked the fact that there are 2 necessary factors to make the institution effective, and the medical staff has usually not been represented. This has occasioned 2 undesirable results: (1) The appearance of policies prejudicial to the medical professions, because the influence and information obtainable from medical members has not been available; and (2) the development of the idea that the staff members are servants of the institution rather than essential partners.

8. Meddling in professional matters by laymen is pernicious. There is no surer way to undermine the morale of a medical staff and disrupt an otherwise excellent service than for lay directors to make and suggest appointments or promotions to the professional staff. The relationship between a hospital board of trustees and the medical staff should closely parallel the relationship between the directors of a corporation and the technical staff—a businesslike coöperation based on mutual confidence and mutual understanding.

9. It follows that the medical profession must insist upon proper representation on the board of hospitals, and must so realize their status as partners rather than servants that the rights of the profession shall be protected by such representation.

10. Your committee on Public Relations is of the opinion that active members of the hospital staff should not be members of the board of trustees, since their duties are the business management of the institution. In order that there be no interference between members of the board of trustees and the professional staff, and in order that the board may be aware of professional matters and receive any necessary professional advice, your committee suggests the election of a medical board of 5 members by the active members of the staff. This committee not only represents the wishes of the hospital professional staff but also is answerable for its ethics to the Lehigh County Medical Society.

11. The medical profession can, it is believed, secure the acceptance of its duly adopted principles governing the administration of hospitals and dispensaries by the education of hospital boards with regard to these principles by staff members serving on such boards. Much can be accomplished by well considered official communications setting forth the views of the medical staff of a hospital to its board. Failing acceptance of said

principles or violation of them by a hospital, the Medical Society of Lehigh County can enforce them by its influence upon its members and control, complete and effective, can be had through hospital staffs.

12. It has come to the attention of your committee that certain evils have in the past and may in the future develop in the conduct of hospitals, notably: (a) Inadequate investigation of recipients of charity; (b) diversion or attempted diversion of partial or full-pay patients to members of the staff; (c) a tendency to exploit the medical staff by utilizing their personal services, in other ways to augment the income of the institution, thus chiseling into the livelihood of the medical profession. It is, therefore, fitting and proper that the Medical Society of Lehigh County lay down certain principles and enact a set of regulations which may not be violated if the approval of the Medical Society of Lehigh County is to be retained.

13. Your committee feels that it is ethical for its physician members to serve in free clinics and wards maintained by approved hospitals, providing such charitable institutions receive *no income based upon the services of such physicians*.

14. No hospital receiving support from public funds is operated equitably, efficiently, or economically if it fails to prevent diversion of its funds to the service of undeserving patients.

15. Loyalty of a hospital and its entire personnel to its hospital professional staff is most commendable; however, it should not be carried to a point where it is detrimental to the interest of the physicians of the community engaged in private practice. The diversion of a patient by direct or indirect means from any physician on the approved list of the hospital to a staff member, by an institution, as a whole or by any member thereof, cannot be condoned by the Lehigh County Medical Society.

16. Any member of the Society who might refuse to coöperate may be disciplined by the society by declaring him unethical and expelling him from membership, which would in turn deprive him of membership in the American Medical Association and constitute him an outlaw from the organized profession.

17. Your committee, therefore, makes the following recommendations:

(a) That a Medical Board of 5 members be elected annually by the active staff of each hospital whose duties shall be to decide all medical policies and problems, since they are by training and profession the only persons recognized by the American Medical Association as competent to decide medical questions.

(b) That no hospital shall be permitted to engage in any form of contract practice with any individual or group of individuals for any purpose other than that of pure hospitalization.

(c) That the general principles above outlined be approved by the Lehigh County Medical Society.

(d) That no hospital shall offer for a price any medical service.

(e) That in no case may a hospital charge a patient for other than the use of its facilities and material. No medical fee may be charged and retained by the hospital.

(f) That emergency and accident cases may have first aid only, administered at the hospital and the physician selected by the patient must be immediately notified. In no case shall a patient, able to pay, be admitted to the service of a staff member without the request of the patient's own physician, if there be one.

(g) That patients who are covered by compensation, health, or accident insurance cannot be considered as indigent.

(h) That none but strictly indigent patients shall be admitted to dispensaries.

(i) That no case, except in emergency, shall be admitted to a dispensary without a letter from a physician.

(j) That patients who have been discharged shall not later be readmitted to a dispensary without certification that their present economic condition is the same as on previous admission.

(k) That, as a condition upon which members of the Lehigh County Medical Society may continue to serve on the staff of a hospital or dispensary, the institution shall be approved annually with regard to its fair practices.

(l) That any infraction of these rules of the Lehigh County Medical Society be reported to the secretary of the society for investigation and necessary action.

(m) That copies of this report be sent to every hospital and an acknowledgment of its receipt be received by the secretary of the Lehigh County Medical Society, and that this report be published in the *Lehigh County Medical Society Bulletin*.

(n) That the Lehigh County Medical Society commend the hospitals in our community for their invariable efforts to institute and maintain a thorough cooperation between the profession and the hospitals.

18. That there be elected annually by the Lehigh County Medical Society 5 members to compose a Hospital Council.

It shall be the duty of this Council to act in an advisory and mediatory capacity with the hospital medical boards.

They shall also recommend such policies as may be offered from time to time by the American Medical Association. The membership of this council shall not include any members of hospital medical boards.

The above resolutions present a "Modus Operandi" believed just and equitable both to hospital management and to the profession.

Oct. 9, 1934

The meeting was held at the Allentown State Hospital. The program included an inspection of the hospital, buffet luncheon, and a medical program: "Manic Depressive Psychoses with Presentation of Cases," by Ethel F. Buchman; and "Involutional Melancholia with Presentation of Cases," by L. Etta Vaughn.

VAUGHAN SPRENKEL, *Reporter*.

LYCOMING

Sept. 14, 1934

The meeting was a combined one of the society and Postgraduate Seminar, Warren N. Shuman in the chair.

The morning meeting was devoted to dry clinics by Henry L. Bockus, gastro-enterologist, University of Pennsylvania Graduate School, and Edward J. Klopp, professor of surgery, Jefferson Medical College.

In the afternoon Dr. Bockus gave an address on the "Medical Phase of Disease of the Upper Abdomen."

He said in part: The medical management of peptic ulcer should be individualized in every case. The problems encountered are relative to age, sex, habits, nervous factors, duration of symptoms, and periodicity.

Age: The average age for duodenal ulcer is 30, with 9 years for duration. The average age for gastric ulcer is usually 10 years later. Therapy in the aged must be given twice as long as in those younger. The ulcer of old age is dependent on the state of nutrition and the condition of the vessels of the duodenum and stomach, or the degree of infection; therefore, in the aged arterial

sclerosis and infection are etiologic factors. In the aged there is a high incidence of diffuse gastritis which is hard to cure, at best, and requires long treatment.

Sex: Duodenal ulcer is rare in the female, figures being 20 to 1 in favor of males. In the female make the diagnosis of ulcer last and only after full proof. Gallbladder disease, adhesions, pyloric ulcer, and duodenal ileus should always be ruled out in the female. Duodenal ileus may cause a duodenal ulcer syndrome and is more apt to occur in the viscerotopic. An ulcer in these cases is usually gastric.

Habits: Highly seasoned foods (pepper, etc.) used over a period of years may have a bearing. It certainly would add to the gastritis that frequently accompanies ulcer. Alcohol, tobacco, and coffee should be interdicted in a case of ulcer, as well as condiments. Tobacco is worse than alcohol in moderation because in itself it can cause the duodenal ulcer syndrome in vagotonic and hyperacid types. The Jewish are frequently of this type. In such patients tobacco must be stopped permanently.

Nervous Factors: Ulcer is a disease of civilization and it is on the increase, the same as coronary disease. It is almost unheard of among primitive persons. Emotional stress and strain may inaugurate ulcer. The hyperthyroid type may be classified as the ulcer type, also the high pressure type of individual. There is always a sympathetic nervous system imbalance. The nervous factor is especially important with regard to chronicity. Subsensitive types should always receive more serious consideration.

Duration of symptoms: A case of long standing symptoms should have very strict management. Six to 10 weeks' rest in bed if necessary. The average duration of symptoms of simple duodenal ulcer is 6 weeks, no matter what you do. An ulcer of 10 to 12 weeks' duration should arouse suspicion of more serious trouble, such as inflammation with plastering of surrounding viscera. Such cases will complain of pain in the back, down the sides of the abdomen, etc.

Periodicity: Ulcers show symptoms in rhythmic cycles. Any disturbance of these cycles should arouse more serious concern. In a case once relieved by food, but now food causes vomiting, should immediately suggest stenosis.

In answer to a number of questions Dr. Bockus replied that nonspecific protein therapy is no longer used in the treatment of ulcer in his clinic. The average acute simple ulcer responds to bland diet, alkalies, antispasmodics, and sedatives. He has had no experience with ipecac. There is a certain degree of virtue in mucin, but is not applicable to all cases. Mucin is not properly purified as yet and may increase the acidity. It may be indicated when alkalies are contraindicated. Contraindications to alkalies: Gastric retention with loss of chlorides; arteriosclerotic renal cases with low specific gravity urine; bleeding cases, especially while bleeding. Any of these may be thrown into alkalosis by the overuse of alkalies. Three-tenths of 1 per cent of hydrochloric acid is neutralized by equal parts of milk. He has been able to give temporary relief in certain cases not helped by other measures.

Drugs in the Treatment of Ulcer: Calcium carbonate and magnesium oxide are good alkalies with less tendency to alkalosis. Sodium bicarbonate is all right for a week or two in the properly selected case, but it should then be stopped, because of its tendency to alkalosis. Extract of belladonna is nearly always included in the prescription. Alkalies may be stopped after 2 or 3 months if diet suffices. Aluminum is not as good as the above. Among the sedatives a combination

of strontium bromide with elixir of phenobarbital is to be preferred.

The diet in gallbladder disease should be of the low cholesterolin type and should not include blood foods, red meats, liver, nuts, eggs, beans, and butter in moderation. Many of these patients have a low metabolic rate, ranging from minus 15 to minus 20. Thyroid therapy may be of help. In those with a normal basal metabolism rate a low cholesterol diet containing some fat may be of benefit in emptying the biliary passages and gallbladder. In the jaundiced group keep the fats and protein low and give a high carbohydrate diet.

Brief outline of management of mucous colitis: Non-irritating diet, antispasmodics, sedatives, thyroid extract if the basal metabolism rate is low. Keep under the physical and nerve limit and if constipated use mineral oil, agar flakes, lactose, and possibly heavy magnesia.

Dr. Klopp gave an address on "Biliary Tract Disease," which lends itself better to surgery than ulcer. Three important factors in the causation of biliary disease and in the production of symptoms: Metabolic disturbance of the cholesterolin content in blood and bile; obstruction of the portal of the biliary tract; and infection. Infection from the respiratory tract is now considered of greater importance than infection from the lower abdomen. Cholesterolin stones are often present without demonstrable infection and often without symptoms. Lodgment in the ampulla or against the cystic duct will cause symptoms. If the infection is slight there may be no temperature nor leukocytosis, but a little tenderness. These often subside spontaneously. If the gallbladder remains distended for a week or more the bile may be white.

When there are many stones they are usually of the same type. A small stone in the common duct may show jaundice in 12 hours, but usually some bile gets by the stone sooner or later, absolute obstruction being temporary and usually complicated by infection sooner or later. The cases of acute cholecystitis with marked symptoms usually show stones. A very acute gallbladder operated upon within 24 to 48 hours may look very virulent but show negative cultures, much of the edema being due to venous obstruction. The infection as a rule is not nearly as severe as in the vermiform appendix.

Regarding operation on acute gallbladders in the early stages of the attack. In a series of 36,000 cases reviewed in recent literature the gross mortality runs about 6.6 per cent. If operation in suppurative cholangitis with Charcot's fever, operate early but do a decompression on the common duct and some weeks later remove the gallbladder or the stones from the ducts. The cholecystogram is of value but 2 or 3 cholecystograms should be taken in questionable cases before deciding to operate. Many of the indefinite cases operated upon will show a return of symptoms. The gallbladder should not be removed unless it is definitely diseased. The more difficult the removal the more the case needed surgery.

Indications for Surgery: Marked stones in the ducts, loss of luster in the gallbladder wall, marked swelling, etc. Usually it is better to put a small drain in the operative site following cholecystectomy. Cholecystostomy *per se* is not popular today as less than 5 per cent of those gallbladders function after drainage. Of these only 10 per cent produce symptoms.

Where pancreatic disease is present and in some cases of stone in the duct, the gallbladder had better not be removed. Calculous cholecystitis gives the best results with surgery. Cure may not be apparent for 2 or 3 years due to a gastric, hepatic, or pancreatic lesion be-

ing present at the same time. Poor results are often due to faulty technic or poor postoperative regimen. The main causes of death in his series were shock, pulmonary complications such as pneumonia, and atelectasis, postoperative hemorrhage due to liver degeneration and enlargement of the spleen, peritonitis, myocarditis, biliary abscess, and pulmonary abscess. There were 12 deaths in 260 operations. The choice of anesthesia in his clinic is spinal supplemented with nitrous oxide. To avoid pulmonary complications try not to operate in the presence of an upper respiratory infection. Clean up all oral sepsis. Prescribe deep breathing after operation and give plenty of morphine the first few days. Five per cent carbon dioxide during the anesthesia will cause deep breathing and ventilate the lungs.

Few gallstones are found in a pure Negro. As to race, Jewish women show the greatest incidence, Italian next, the yellow race third. Other patients more liable are women in early pregnancy, those in late lactation, also cases in which there is a sudden interruption in lactation, hypertensive cases with a high cholesterol figure, obesity, and typhoid.

LA RUE M. HOFFMAN, *Reporter*.

MONTGOMERY

Sept. 5, 1934

The meeting was held at the State Hospital, Norristown, with 51 members and 3 visitors present.

Stewart Nase, Esq., district attorney of Montgomery County, spoke on "The Legal Aspects of Abortion." He said in part:

The medical profession will do well to turn its attention to the present situation surrounding abortion cases. Be it clearly understood that the profession in this county is not under suspicion of carrying on a general illegal practice. The medical men among us are honorable men; the questionable ones are few, but there seems to be a few who may give trouble unless we are on our guard. Unless the honest doctor is careful to refuse questionable cases or to call in another doctor and to inform the district attorney's office of the facts, he may be wrongfully charged by some unscrupulous persons. It has happened in the past. Abortion cases are multiplying; doctors should exercise good judgment in such matters and be exceedingly prudent. The older doctor has less desire to protect his patient from publicity than has the younger doctor.

The duty of a district attorney is to protect legal conduct just as it is to prosecute illegal practice. For that reason he is appealing to the profession, not to help the district attorney primarily, but to help itself. The problem as a rule is the doctor is called in to administer to a case in which an abortion has been committed either by the patient or by some other principal, not a doctor. Some doctors will not treat such a patient unless she reveals everything to them which they report to the district attorney. That is safe. Others say they cannot let the patient suffer, they must protect her; publicity must be avoided; and they do not tell anybody. That is dangerous because the patient may die and her parents blame the doctor called in. The facts may be close and the duty of the district attorney is to prosecute. A career possibly "shot to pieces"; a young man's future gone or an older man's reputation blasted. There were 3 such chances in the county during the past 6 months.

Unless each doctor decides to exercise more discretion in the manner of accepting abortion patients, to be more diligent in trying to obtain the true facts, to coöperate with the district attorney's office, to expose abortions at least to the district attorney's office for the district at-

orney's decision as to further disposition, some doctor may and will be involved. If that happens, although innocent, the doctor shall have no one to blame but himself. A committee was appointed to confer with the district attorney's office on the subject.

WALLACE W. DILL, *Reporter.*

PHILADELPHIA

Sept. 26, 1934

This was Inaugural Meeting, the first meeting of the season 1934-1935, and was devoted to the installation of the new president, Seth A. Brumm, and the address of the retiring president, Walter S. Cornell. Dr. Cornell briefly reviewed the accomplishments of his term stressing particularly the successful drive for new members and the scheme for the ophthalmic examination of school children of limited means. The successful series of seminars was given appropriate mention, also the scientific program. Reference to the labors of the Medical Economics Commission and its several subsections was made. The diphtheria prophylaxis campaign was likewise credited with outstanding achievements. Reference was made to the travail of the profession in its attempt to adjust itself to the trying regulations imposed upon it by the Federal Emergency Medical Relief Administration. He expressed his continued confidence in the medical profession, of this society and in its ability to rise to the occasion in periods of stress.

Oct. 10, 1934

"The Hospital Situation in New York City," was presented by Mr. Homer Wickenden, director-general of the United Hospital Fund, New York City. A formidable array of figures was given outlining the hospital situation in New York City from 3 angles: Hospital facilities and services; hospital finances; and community coordination and control.

New York City has 26 municipal hospitals, 118 voluntary hospitals, and 110 proprietary hospitals which are organized for profit. The municipal hospitals have 16,000 beds; the voluntary, 26,000 beds; and the proprietary, 4000 beds. The bed ratio is 6.5 beds per 1000 population. New York City, according to some authority who accepts 5 beds per 1000 as normal average, has about 10,000 more hospital beds than it needs. In Manhattan borough, in which the population is decreasing, the number of beds has been increasing; while in the Bronx and Queens, in which the population is on the increase, the number of beds has not kept pace.

The average occupancy for the past year of private rooms is about 35 per cent; semiprivate rooms, 50 per cent; semiprivate wards, about 60 per cent; and general wards 80 per cent. The average for all beds in the voluntary hospitals is about 66 per cent. The municipal institution showed an average occupancy for 1933 of 99 per cent. In the past 6 years the number of patients cared for in the municipal hospitals, which are for the indigent only, has increased 45 per cent.

There are no city or district physicians in New York City. The attending physicians of the municipal hospitals, totalling 2000, serve without pay. The City Charter specifically forbids the payment of the staff members even for the care of Workmen's Compensation cases. There are more than 8000 physicians who have staff connections of one kind or another with the voluntary hospitals.

The volume of outpatient service in the New York hospitals has grown 50 per cent in the past 6 years. It

is estimated that in 1933 there were over 2 million persons who went to the dispensaries out of the total population of 7 million. The increase in recent years has stimulated interest in efforts looking forward to the investigation and central registration of applicants. A joint committee of the New York County Medical Society and the Hospital Conference of the City of New York have worked out the following set of standards to be observed until July 1, 1935, when they will be revised in accordance with the results obtained.

No applicant is accepted unless it is shown he or she has expended \$25 for a private physician's service in that year; a single person earning less than \$900 a year is eligible; a married couple with an annual income of less than \$1400 is eligible; and, a family with an annual income of less than \$1400 plus \$250 for each dependent up to 4, is eligible.

These have been adopted by practically all the boards of trustees of the voluntary hospitals of Manhattan, Bronx, and Brooklyn. The joint committee is checking their observance as well as organizing a training school for outpatient department registrars.

The New York hospitals represent an investment of approximately \$200,000,000 without any community plan. These 254 hospitals have an annual budget in excess of \$51,000,000. New York City spends annually \$17,000,000 for the maintenance of its 26 institutions and contributes from its tax funds \$4,000,000 for the care of its charges in the voluntary hospitals. There is no state-aid in New York City for its hospitals. In the case of the 56 voluntary hospitals the operating deficit was \$9,000,000 in 1933. All but \$2,500,000 was met by income or endowment. At the end of 1933, the accumulated deficit of these 56 hospitals was \$5,000,000 with mortgage indebtedness in addition of \$12,000,000.

The United Hospital Fund has endeavored by analysis of cost accounting services to place the operating arrangements on a sounder footing. In addition it has turned to a consideration of periodic payments by prospective patients in advance of their need for hospital care. After the enactment of proper legislation providing for supervision of the plan, both by the State Department of Insurance and the State Department of Social Welfare, it is anticipated to place the plan in operation under the corporate title of Associated Hospital Service sponsored by representatives of all the participating agencies including the medical organization.

The details of this, together with a description of the operation of the United Hospital Fund and the Department of Hospitals, concluded this paper. A further intensive analysis of the hospital situation is also contemplated.

"The Hospital Situation with Special Reference to Philadelphia," by Mr. Charles F. Neergaard, Hospital Planning Expert, New York City, who stressed the value of hospital mergers in which expensive duplication of services was apparent and mentioned the many difficulties that operated to prevent such mergers. He also stated that if organized medicine were to get behind a program of rationalizing the hospital situation it would find greater opportunity for public service than it has ever had, even in the fields in which success has already crowned its efforts.

The nation is tremendously overhospitalized. The acute beds alone total 430,000 in 4200 general hospitals, which in 1933 were occupied 55 per cent to capacity. All a hospital needs in reserve beds is 20 to 25 per cent of its normal patient census, not 45 per cent. There are now 150,000 more acute beds than we can use. In 1933, the Government hospitals operated at 90 per cent capac-

ity, obviously absorbing much of the voluntary hospitals' business. With the cost per bed averaging \$5000, the extent of the frozen hospital assets can be readily calculated.

It is obvious too much money has been spent in bricks, mortar, and material things and too little in brains for planning, and far too little for endowment, research, *etc.* Several quotations from the Haven Emerson Survey were made to illustrate the appalling hospital situation in Philadelphia. There are here some 3000 empty beds in excess of reserve requirements. The remedy of merging the smaller with the larger hospitals and the transferring of chronic cases to special institutions was emphasized.

In order to avoid the distressing features attendant upon the establishment of merged medical staffs, he suggested the creation of a Senior Council for the older and more experienced staff members, similar to the board in bank organizations, releasing the junior members for the conduct of the routine medical work. He also favored the development of a regulated open staff, with all members under the supervision and guidance of the senior council.

The essayist closed by again emphasizing the need of hospital mergers in Philadelphia and expressed the optimistic belief that the profession would rise to its opportunities and by so doing would devitalize the threatening menace of State medicine.

"Lay and Professional Relationships in Hospitals," by Mr. Louis I. Matthews, superintendent, St. Luke's and Children's Hospital, Philadelphia.

This hospital has been distinguished by the fact that since its foundation in 1877 there has been medical representation on the board. The close understanding and unity created between the lay trustees and the general staff alone has made the enviable progress of the hospital possible.

In the face of existing financial stress, a committee from the Staff and from the board provided the lower and all inclusive rates under which the hospital operates. The board has adopted a policy that it should commit the hospital to none of the proposed hospitalization or medical insurance schemes unless a proposal concerning such should come to the board from the staff with a recommendation for their adoption. Such moves were made because this course was deemed to be the only right and proper one and the result has been to create and sustain a close feeling of understanding between the groups.

The administration of the hospital is unique. There is no one holding the office of director or superintendent as that office is generally understood. The president of the hospital is the executive officer of the administration in precisely the same sense that he is executive officer of the Board of Trustees, no more, no less. The head of each administrative department is in complete charge of the management of that department and of its personnel. This changes the status of this group from subordinates to officials and makes for loyalty as well as efficiency.

For the year ending 1930, the hospital had a large operating deficit; for the year ending Aug. 31, 1934, a small operating profit was recorded.

The hospital coöperates to a remarkable degree with The Philadelphia County Medical Society in the matter of referring ineligible dispensary patients to private physicians. In pursuing this course and in the matter of eliminating duplications of hospital services, a decrease of 13,686 dispensary visits resulted.

Mr. Matthews favors amending the existing law in 2 particulars. He would have the State adopt a law

similar to that in New Jersey under which the hospital by simply filling out a form files a lien on any and all accident cases which they believe may result in damage claims. No settlement may be made in or out of court without compensation to the hospital and attending physician. The other change would be in the present form of the State Welfare Department's application for admission by an indigent patient, whereby the applicant should make an affidavit to the truth of the statement contained therein, and to have printed in red ink at the bottom of the page an abstract of the law concerning the penalty for perjury.

The speaker deplored the fact that the average hospital trustee, usually a man of ability and attainment, is compelled to subordinate his hospital activities to the more vital features of his own business or profession. There is sufficient latent power and ability in every hospital board if conscientiously exercised to solve all problems. There is no real obstacle to the harmonious functioning of the board and the staff of any hospital. The appreciation of the interdependence of the board and the staff, and the common purpose of both in the treatment of the sick, makes for the elimination of many disturbing situations.

In discussing the financial reports of some 20 Philadelphia hospitals in the period 1929-1933, the speaker noted that although the financial panic occurred in the fall of 1929, the far-reaching effect of our financial disease was not appreciated by their administrators even as late as the fall of 1931. Economies did not begin to show in the records until 1932. The payrolls of 10 hospitals actually increased in 1931 over 1930. The payrolls of 7 hospitals increased in 1932 over 1931, and the payrolls of 3 hospitals increased in 1933 over 1932. During these years total days gradually decreased; therefore, these hospitals either raised the pay of those they already had or increased the number of those employed. If the hospitals had met conditions in the manner that industry did, their plight would have been greatly mitigated. The items that admitted of saving were mentioned. Administration and nursing departments seem to have been spared any drastic economies.

In 4 years' time this group of hospitals has run up an operating deficit of over \$1,000,000, entirely apart from any capital debt which has been built up during this period. Applying this average to the 7500 American hospitals it totals half a billion dollars for the 4-year period, and makes the hospital industry responsible for a large amount of unemployment through this mass of unpaid bills.

One of Philadelphia's hospitals notes an achievement in this regard. The hospital of the University of Pennsylvania shows in its record of income and operating expense for 11 years, 1924 to 1934 inclusive, an operating surplus for the entire period of nearly \$60,000. This is a remarkable accomplishment and testifies to the business acumen of its administrators. Most hospitals instead of revising their own business schedules are searching for new sources of support and looking especially to the Federal Government for aid. If the Federal Government should subsidize voluntary hospitals, it is reasonable to assume, in view of its policy in other fields, it will include some definite form of regulation and control. This will be a definite step towards general socialization of medicine.

The keystone of the medical profession is individualism and it should be nourished and cultivated. Once lost it cannot be restored. Apathy will do much to destroy it. The younger generation should be encouraged to protect it. The older generation is likely to minimize the dangers that beset it. In addition to the dissemina-

tion of the knowledge concerning the situation confronting the medical profession, the speaker warned the physicians against the dangers of assuming a negative phase and further urged an aggressive movement whereby an active constructive plan of procedure be presented which will help solve the problems of the patient, the doctor, and the hospital; otherwise all 3 run the risk of being subordinated to political commination.

"Alternate Methods of Medical Functioning in Relation to the Indigent," by Harold A. Miller, M.D., director of Federal Emergency Medical Relief for Pennsylvania, who presented a plea for the compulsory assignment of indigent orphans to private homes under State or municipal supervision, for their care and support, and thus eliminate institutional care. This was introduced by statistics relative to the indigency situation in Pennsylvania. In this State there are 371,000 families dependent on relief; 10,000 men in camps. Pennsylvania through its relief agencies has been an employer of labor to the extent of 300,000 purchasing medical service and supplies and caring for 10,000 transients and 1000 accidents daily. It utilizes 9800 doctors, 8000 dentists, 7400 druggists, and 20,000 nurses in the discharge of these duties. These startling figures provoke thought as to the future.

In casting about for a means of preventing any increase in the ranks of indigency in the future, Dr. Miller looks to rehabilitation of the sick patient in the home under the guidance of his personal physician and also to the prevention of the development of the "indigency complex" in the children of the indigent. He proposes quite an elaborate permanent scheme for the former class (as well as for the nonrehabilitable indigent). For the children of this class of society he urges the compulsory placing of such wards in mother homes.

In discussion, George L. Laverty, M.D., Harrisburg, gave some interesting statistics upon the scope of the Federal Emergency Medical Relief in Pennsylvania. In essence, his remarks showed that the amount allotted for medical relief was insufficient to cover the full amount of the total invoices presented by the physicians for services, thus necessitating a cut in the payments disbursed to the physicians.

SAMUEL HORTON BROWN, *Reporter.*

WARREN

Sept. 17, 1934

The meeting was held at the Conewango Club with 35 present, the best attendance of the year.

Frank C. Hammond, professor of gynecology, Temple University Medical School, addressed the society on "Everyday Gynecologic Problems." He said in part:

The general practitioner gives too little attention to some of these disturbances. He does not make pelvic examinations as often as he should. The gynecologic history is all important. Vaginal examination invariably can be made and should be attempted in all cases; when not possible in virgins, the recto-abdominal procedure should be used. The necessity of having suitable size speculums was detailed; at least 3 sizes are needed. The use of tampons was described, and prolonged local treatment is unwise and unfair to the patient. He described the too frequent resort to dilatation and curettage. Case histories were reported showing the serious consequences that may follow this operation which is practically limited to 2 conditions; to permit a diagnosis, and in incomplete abortion. Many of the pelvic disorders of women will be found systemic in their origin and if the general practitioner will be careful in

his diagnosis and studious in his treatment he will be successful in the great majority of cases.

Endocrine dysfunction is as yet but little understood but it does play a large part in disturbances of menstruation and sterility. Thyroid, pituitary, ovarian, and pancreatic preparations have their uses.

The physician is urged to give greater heed to uterine bleeding irrespective of age, and to consider it as a possible symptom of malignancy until excluded by a careful examination. As preventive measures, lacerations of the cervix should be repaired early after childbirth. A persistent leukorrhea may be due to trichomonas vaginalis.

The use of pessaries and their proper placement were detailed. Backward displacement of the uterus after the menopause is its normal position and needs no correction. In cases of retrodisplacement giving rise to suspected symptoms, replace the uterus and insert a suitable pessary, and if it affords relief after a few months' trial, operation may be advised. The value of the Menge pessary was demonstrated.

Many other practical points were discussed including organotherapy.

Dinner was furnished by the hosts, Drs. Smith, Stewart, Valone and VerMilvea.

MICHAEL V. BALL, *Reporter.*

WASHINGTON

Sept. 19, 1934

The meeting was held at the Nemacolin Country Club. Most of the members reported early for an afternoon of golf. Dinner was served at 6 o'clock and the scientific program sponsored by the Monongahela Section of this county medical society followed, with President William J. L. McCullough presiding.

Albert S. Sickman read a report of "A Case of Ectopic Gestation." Abstract of case report:

Mrs. L. S., age 31, has one child living delivered by cesarean section 8 years ago.

Past History: One miscarriage about 2 months following the cesarean.

Present History: About May, 1931, became pregnant which continued fairly normal until Jan. 1, 1932, when she began to have severe cramps in the abdomen, relieved with morphine sulphate hypodermically. No fetal movements since Jan. 1. On Jan. 25, she began to have a very slight bloody vaginal discharge, and Jan. 29, she was admitted to the Charlevoix-Monessen Hospital with a temperature of 101° F., pulse 120, and respirations 22. There was dyspnea and a small amount of vaginal bleeding. On admission to the hospital there was no fetal heart sounds; the abdomen was very much distended, tympanitic, and enlarged to about the size of an eight months' pregnancy. Patient complained of considerable pain under the lower borders of the ribs.

Treatment: The patient was prepared vaginally and taken to the operating room the next morning. The cervix was dilated and gauze pack inserted to induce labor. Ten gr. of quinine were given every 3 hours with 1/30 gr. of strychnine, followed by yellow vomitus. Twenty-four hours later the pack was removed, no pains having been started. During the next 24 hours 3 minims of pituitrin were given every third hour, with 5 gr. of quinine every 4 hours without effect. At the end of 24 hours another pack was inserted, which was ineffectual. After 24 hours the pack was removed, followed with one ampule of ergot and a half ampule 3 hours later, and was then given 3 minims of pituitrin every third hour for 3 doses without effect.

Feb. 1, a roentgenogram showed the fetus lying in the longitudinal position with the head toward the patient's diaphragm.

Feb. 4, a Pittsburgh obstetrician was called in consultation, who deemed it necessary to operate, although he did not know what the real condition was. Under avertin anesthesia, Feb. 4, a right rectus incision was made when it was found that the patient had about an 8 months' extra-uterine pregnancy. A somewhat macerated fetus was removed. The placenta was found densely adherent to the under surface of the omentum. The fetus was lying in an oblique position with the head in the upper left quadrant, in the region of the cardiac end of the stomach. The placenta was dissected free. There was found a rent in the right cornu of the uterus, from which site a fibroid had been removed at the previous cesarean section. The uterus was removed and the abdomen drained. When discharged from the hospital there was a fecal fistula which persisted for about a year.

John W. Gordon read a paper on "Perforated Peptic Ulcer." He said in part:

The appalling mortality is not due to the inadequacy of surgical ability, but rather to the fact that surgical intervention is denied until far too many hours have elapsed after the onset of the initial symptoms. Patients operated upon within 12 hours generally do well, but a longer elapse of time is always of the gravest prognostic import. The delay is not due to the negligence or lack of diagnostic acumen on the part of the attending physician, but often to the decision of the patient or his family to try a few home remedies and to wait. We are forced to admit that in the presence of acute perforation in which the classical symptoms are not present (sometimes referred to as subacute or chronic perforation), the diagnosis has been many times missed entirely and confused with some other condition.

Perforation occurs early or late in about 12 per cent of all ulcer cases. The typical classical features of an acute perforation on the lesser curvature of the stomach anteriorly, which happens to be by far the most common site of ulcer, are sudden agonizing pain in the epigastrium, followed by a reflex borderlike rigidity of the entire abdominal musculature, and extreme local tenderness on pressure, acceleration of the pulse and moderate rise in temperature. The history of preëxisting ulcer is usually absent. This perforation is almost always associated with an initial collapse from which the patient temporarily recovers before the classical symptoms of peritonitis set in. This period of seeming improvement is very disastrous, in that the physician may be led to delay a few hours for the purpose of better observation, thereby abandoning the patient to almost certain death. There is no possibility of misunderstanding the absolute suddenness and intense violence of the pain of acute perforation. There is no other acute abdominal disease besides the perforation of a gastric or duodenal ulcer which renders even the strongest man so completely and unexpectedly incapacitated, forcing him to lie perfectly still, breathing spasmodically and groaning.

The atypical case, the so-called subacute or chronic perforation in which the ulcer is of long standing and protective adhesions have first formed, in which the perforation may be no larger than a pin point and in such a position as to permit practically no leakage into the general peritoneal cavity, makes an entirely different picture. The onset of the symptoms is sudden but less violent. The initial pain is never absent but is not agonizing; the patient is always able to distinguish it from his accustomed gastralgia or from any premonitory pains. This initial pain is of short duration, usually abates for a few hours until the symptoms of peritonitis supervene. It is in this type of perforation that there is marked radiation of the pain. If an ulcer perforates on the posterior surface of the stomach near the cardia the pain may be so severe in the left shoulder that the patient believes he has rheumatism. If the ulcer is on the lesser curvature posteriorly the pain radiates into the back and sometimes into the right shoulder simulating gallbladder disease. If it be in the first portion of the duodenum the pain is more in the right flank. The more chronic the ulcer, the greater the protection by adhesions; and the smaller the perforation, the wider will be the radiation of the pain.

The localization of the pain in the subsequent course of the disease has less significance for diagnosis, depending on the course taken by the gastric contents, usually first to the right lower quadrant, then into the pelvis, later to the left side depending upon the extent of the peritonitis. This would explain why some cases seen

a number of hours after perforation could be mistaken for an acute appendicitis or for disease of the female pelvic organs.

The presence or absence of liver dullness has been a much discussed diagnostic sign. If the perforation is quite large with the escape of much free gas into the peritoneal cavity, this dullness will be absent and should never be a deciding factor in diagnosis. As to differential diagnosis, there is hardly any disease of the abdomen which has not been confused with perforated peptic ulcer, especially appendicitis, cholecystitis, pancreatitis, rupture of a pregnant tube, torsion of an ovarian cyst, acute intestinal obstruction, gastric crises of tabes, and even an acute pneumothorax or a coronary artery thrombosis. These must be carefully differentiated.

Surgical treatment: It was generally believed that there should be employed only the simplest form of closure of the opening. This idea is rapidly changing. Why should not a wide resection or a pyloroplasty be done. The cases for elective surgery should be chosen with the utmost care and only the exceptionally good risks accepted; for the taking of long chances with the resultant high mortality which is bound to follow would only throw a very commendable procedure into disrepute.

In discussion of Dr. Gordon's paper, Orville G. Lewis stressed the point that surgery is often delayed too long while a definite diagnosis is being searched; that an emergency abdomen should be opened immediately and the diagnosis made at operation; and that most patients do better with drainage than without.

SAMUEL A. RUBEN, *Reporter*.

YORK

Sept. 15, 1934

President James F. Wood in the chair.

James E. Cottrell, associate in medicine, University of Pennsylvania Medical School, spoke on "Dwarfism and Infantilism." He said in part:

Dwarfs always attract the attention of the public and the causes of dwarfism attract the medical interests; so far only a hypothesis, no real knowledge. A dwarf is a person of strikingly diminutive size as compared with a normal person; cannot separate sharply; borderline cases often merge into the normal state.

Infantilism: A retention into chronologically adult age of the characteristics of infancy and childhood. Dwarfism does not imply infantilism.

Dwarfs are divided according to Hunsermann into: 1. Grossly malformed; achondroplastic, rachitic, and osteomalacic. 2. Well proportioned: primordial (pigmy of Africa) and infantile.

Many slides were then shown of dwarfs.

Treatment: Cretins can best be helped if diagnosis is made early, even in the middle "teens"; if there is any underlying disease, treat it; often vitamin defects; obvious anterior pituitary lesions should be treated. The anterior pituitary lobe produces a hormone, the thyrotropic hormone. The posterior pituitary lobe produces a gonadotropic hormone. Results are encouraging and pituitary therapy is to be given an adequate trial; no harm can be done. Solutions should be given hypodermically, never orally, and 6 to 12 months should elapse before any conclusion is reached.

In discussion, Benjamin A. Hoover, Wrightsville, cited a case treated with pituitary substance by mouth, and asked in which to obtain the extract of pituitary for commercial use. Joseph C. Atkins, Red Lion, asked the customary dosage of thyroid in cretinism. W. Frank

Gemmill, York, asked the value of prolan in undescended testes, using it in place of operation.

Dr. Cottrell, in closing, stated that pituitary substance by mouth for children born of dwarfish parents deserves some consideration. He referred to the thymus experiments of Rowntree; difficulty in evaluating the efficiency of any substance used as growth may be unrelated to therapy but dependent upon involvement of sun, air, and vitamins.

No pituitary extract of known efficiency is being manufactured, although fione of Van Dyke and that of Evans and antuitrin-G of Parke-Davis are probably still being manufactured. The state of osseous development of patient must be known. Dose of thyroid substance must be enough, individually adjusted, and perhaps an average of 3 grains daily or thyroxin 1/300 to 1/80 grains daily.

H. MALCOLM READ, *Reporter*.

ELEVENTH COUNCILOR DISTRICT MEETING

The Eleventh Councilor District meeting was held at the Summit Hotel, near Uniontown, July 12, 1934, District Councilor Arthur E. Crow presiding.

Elliott B. Edie, Uniontown, read a paper on "Heart Symptoms That Alarm Patients." He classified patients in 3 groups: Psychoneurotic, the normal patient subject to suggestions, and patients with actual heart sensations. The awareness of heart action often initiates fear. Many of these patients must be treated by suggestion. The possibility of hyperinsulinism should be borne in mind. Most patients have at one time or another extrasystoles that can be compared to the carbon knock of automobiles. Both usually can be easily diagnosed. Paroxysmal tachycardia usually produces physical distress with a cardiac rate of 160 to 200 and the length of the attack prolonged. Similar cases may be treated as premature systoles with 3 grains of quinidine sulphate 3 times a day.

James H. Corwin, Washington, Pa., read a paper on "Medical Economics." Medical economics has not kept up to medical science. The principal reasons for business failure are due to lack of certain types of education, failure of patient to budget income producing a burden on charitable hospitals and a loss of physicians' remuneration, State medicine, cults, and exploiters. Much has been done and little accomplished to remedy the situation, but there should be better education for medical students on problems of economics and closer and better organizations starting with the county societies with the advice and the assistance of a county board or trustees and a lay secretary.

Horace B. Anderson, Johnstown, read a paper on "Digitalis, Its Uses and Abuses." The physiologic effects are chiefly on the heart muscle with that of children being more affected than the heart muscle of adults. The vagus nerve is stimulated, slowing the heart rate. The conduction impulses of the neuromuscular bundle of His are slowed permitting the auricles and ventricles to fill more completely. The stimulation of the heart muscle permits a better emptying of the ventricles. There is very little effect on blood pressure. The optimum dose of digitalis is just short of that sufficient to give toxic symptoms. The toxic action on the heart muscle consists of an increased muscle sensitivity progressing to a complete heart block. Any cardiac arrhythmia may be produced. Digitalis should be stopped when new arrhythmias develop, coupled or phasic beats develop, and the heart is slowed to 60 or less beats per minute. Digitalis should not be used in toxic cardiac conditions.

President Moses Behrend, of the State Medical Society, discussed "Workmen's Compensation." He stated that new laws should be enacted better enabling the physician to collect a full bill. The physicians in cases requiring treatment beyond the 30-day limit should be compensated. The \$1.00 limit should be extended, but the existing laws will be difficult to change.

At the afternoon session John W. Shires, Pittsburgh, read a paper on "The Mortality of Appendicitis," in which he presented the analysis of 10 leading hospitals of Pittsburgh. The mortality was 4.6 per cent. Peritonitis developed in 12.8 per cent of the patients. Mortality was increased by delay in operation, the use of cathartics, and injudicious use of morphine and sedatives. Mortality of patients operated upon within the first 24 hours was .2 of 1 per cent; in 48 hours, 7 per cent; and in 72 hours, 16 per cent. A better and more extensive use of the laboratory with the removal of the foregoing causes should aid in the control of appendicitis.

Trustee and Councilor George C. Yeager, Philadelphia, discussed the organizations of medicine in Pennsylvania.

Harold A. Miller, Harrisburg, director of Federal Medical Emergency Relief for Pennsylvania, presented numerous statistics on the present relief system. He said that 20 per cent of the people of Pennsylvania are on relief.

Pascal Brooke Bland, professor of obstetrics, Jefferson Medical College, Philadelphia, read a paper on "Cerebral Injuries in the Newborn," as pertained to the general practitioner. He said in part:

One-half or more of the fatalities received at birth are from damage of the baby's brain. One per cent of the total population of the United States is mentally deranged, and 1,250,000 persons are mentally deficient in our country. Roughly speaking, 125,000 cases of mental diseases can be ascribed to injuries at the time of birth. Certain cases of mental derangement and forms of spastic paralysis can be attributed to "blue babies." Breech presentation is accompanied by much higher percentage of intracranial damage. Injury of the skull with hemorrhage is responsible for 27 per cent of dead babies. Spinal tap reveals the presence of blood in approximately 10 per cent of newborn. Injuries due to intracranial strain cause general compression of the entire head. Compression of anterior and posterior portion pulls on membrane. General compression of the entire head results in decrease of vertical diameter of the head. This is more frequent in first pregnancy and is especially true in large male babies, as there is more prolonged and difficult labor. It has been found that delivery by instruments carefully used is followed by less injury to brain than that of prolonged spontaneous labor. Symptoms of intracranial damage are characterized by rather typical clinical picture, by characteristic listlessness in the baby and apathy and disturbance in the respiratory rate, cyanosis of varied degree, such as mild or almost black, nystagmus, convulsions, refusal of the baby to nurse, and plaintive appealing cry. If injury occurs in a premature or a large male child, it is important to make diagnosis. Doctors should always think of injury to baby's brain following a difficult labor, confirming suspicions by lumbar puncture. Gross injury of delicate structures of fetal skull rapidly leads to destruction of brain cells which alteration necessarily is permanent. In children badly organized mentally or nervously, history of difficult labor is obtained in nearly all. Some children carry through life to a marked degree marks of neurologic and mental disturbances due

to birth injury. Birth hemorrhage is occasionally responsible for hydrocephalus; secondary epilepsy may be directly caused by cerebral injury. Forty per cent of all the cases of paralysis of infancy later become epileptic. It is more than likely that hemorrhage on the surface of the brain does not affect the mortal area. The most dependable control of these cases is their prevention; eliminating the causes which may lead to serious complications; eliminating undue intracranial strain from the unwise use of uterine stimulants during labor and particularly the drug known as pituitrin. Em-

phasis should be made upon the necessity of spinal puncture once, twice, or a dozen times in all infants showing blood in the spinal fluid. If necessary, spinal punctures should be made in all babies in which the labors are difficult and probable intracranial injuries have occurred.

Following his address, Dr. Bland showed a film illustrating parts of his address.

The District Censors submitted their annual reports. The Woman's Auxiliary was in attendance. Luncheon was served.

RALPH L. COX, *Reporter*.

The Woman's Auxiliary to The Medical Society of the State of Pennsylvania

MRS. GEORGE C. YEAGER, *Editor*, 1419 E. Susquehanna Ave., Philadelphia, Pa.

THE PRESIDENT'S MESSAGE

DEAR MEMBERS OF THE AUXILIARY:

The State meeting held in Wilkes-Barre, Oct. 1 to 4, with a registration of 425, was one of the most enjoyable ever held. An interesting and smoothly working program and a generous amount of social activities planned by our most gracious hostesses were greatly enjoyed.

In making my first contribution to the JOURNAL I am fully aware a difficult task lies before me, not only because I am following in the footsteps of so able a person as our past president, Mrs. Edward Lyon, but also because I realize too well my limitations. Nevertheless, I shall do my best and shall rely on the well known charity of each member of the auxiliary to bear with me in the work this coming year.

At present we can give greater aid to the medical profession by becoming thoroughly familiar with its aims and ideals, and extending them to other women's organizations through our members who are qualified to be leaders and who may direct the health education and legislation programs of such organizations along the lines consistent with sound thought.

Information is what the public demands and will have, so let us do our part in presenting to it the work of our auxiliary.

Sincerely yours,

NAOMI L. (MRS. L. D.) SARGENT,
President.

LETTER FROM THE RETIRING EDITOR

DEAR COUNTY CHAIRMEN AND SECRETARIES:

During the past 2 years my relations with you have been so pleasant that I cannot refrain from

a word of appreciation at this time for the many courtesies received from all parts of the great State of Pennsylvania. I appreciate, too, the development of many women who have come to the new task of being publicity chairmen for their various auxiliaries with no experience in editorial work and with everything strange and uncharted before them; however, after a few more or less successful contributions, when they have been feeling their way, so to speak, they usually have become worthy contributors to these columns of news.

From new chairmen may I ask a few routine methods of procedure that will make the arduous work of the new editor less difficult:

(1) Have all contributions on your editor's desk by the tenth of the month for the next month's issue of the JOURNAL.

(2) Have all contributions exactly as you wish them to appear; written, or preferably typed double spaced, on one side of the sheet of paper. If by hand, be careful to have proper names *very plainly* written.

(3) Do not send newspaper accounts or booklets and expect your editor to collect and to type from such material your auxiliary proceedings. It makes her work unnecessarily arduous and she may miss the very thing you want to feature most.

(4) Do not place verse in your contributions. It is considered out of place in a professional journal.

(5) Do not mix your auxiliary news with a personal letter to the editor and then tell her to pick out what she likes of your proceedings for publication.

Finally, may I urge each auxiliary to have all meetings reported to the State JOURNAL. It encourages all of us to know of the things being

done in other parts of the State. Useful suggestions for new avenues of service may be gained and the splendid things one auxiliary is doing may be spread throughout the length and breadth of our Commonwealth by the publicity you give.

Thanking you for loyal coöperation, and bespeaking the same for the new editor, I shall always be

Cordially yours,

ELIZABETH G. (MRS. WILMER) KRUSEN.

PUBLICATION OF MINUTES DEFERRED

The minutes of the sessions of the Wilkes-Barre Convention will appear in the September, 1935, JOURNAL in order that they may be fresh in your minds when you go to Harrisburg next October.

The Budget adopted at Wilkes-Barre for the ensuing year is as follows:

BUDGET COMMITTEE REPORT

INCOME FOR 1933-34

Balance in treasury (Sept. 1, 1933)	\$230.93
County Auxiliary dues	1942.00
Interest on mortgage bond	71.19
Initiation fees	5.00
Total	\$2249.12
Mortgage bond	1500.00

ESTIMATED INCOME FOR 1934-35

Balance in treasury (Sept. 1, 1934)	\$746.25
County Auxiliary dues	1700.00
Interest on mortgage bond	71.19
Initiation fees .....	.....
Total	\$2517.44
Mortgage bond	1500.00

EXPENDITURES FOR 1933-34

Convention	\$150.00
President's Discretionary Fund	400.00
Medical Benevolence Fund	100.00
Dues to National Auxiliary	485.50
Committee chairman	16.49
District Councilor chairman	15.00
Office expense	315.16
Miscellaneous	20.72
Total	\$1502.87

RECOMMENDED BUDGET FOR 1934-35

For Convention Committee	\$200.00
For disbursement during convention by President's order (guest luncheons and dinners, stenographer, meeting room rent, speaker, etc.)	100.00
President's Discretionary Fund	400.00
Medical Benevolence Fund	200.00
Dues to National Auxiliary	395.00
Committee chairman	150.00

District Councilor chairman	150.00
Office expense	350.00
Miscellaneous	50.00
Total	\$1995.00

(Signed) MRS. JOHN F. McCULLOUGH, *Chairman*,
MRS. JOSEPH W. SHAFFER,
MRS. WALTER F. DONALDSON.

COUNTY AUXILIARY REPORTS

Allegheny.—The Fall meeting was held Sept. 25, at the William Penn Hotel, at 2:30 p.m. One hundred twenty members were present.

Wilton H. Robinson, president, Allegheny County Medical Society, gave an outline of the work done by the county medical society. Alexander H. Colwell, chairman of the Advisory Board to the Auxiliary, explained just what an auxiliary means to the county society—likening it to the reserve force of an army. Dr. Colwell said, "Once we set forth what the auxiliary should not do; now we suggest what to do." Henry J. Benz, superintendent, Bureau of Child Welfare of the City of Pittsburgh, spoke of the work of that department.

A number of our members entered into the roundtable discussion conducted by Mrs. Walter F. Donaldson: "What the Auxiliary Means to Me."

The year 1934-35 promises to be a profitable one for our auxiliary. Changing conditions on each side are leading organizations everywhere to reëxamine their programs and to seek a greater perspective in their work. Especially is this applicable to those who bear the responsibility of leadership. Article II of our By-Laws sets forth a definite task for us.

Berks.—The September meeting was held at the country home of Mrs. Frederick Knoll. Mrs. Howard U. Miller presided. Reports from several committees were read. Mrs. Richard Travis told of the program committee sending a copy of the yearly program to each member. Mrs. Cecil Freed described her trip to the National Convention in Cleveland.

Health propaganda was sponsored by Mrs. John R. Spanuth at the Reading Fair. Exhibits were obtained and a motion picture was donated. The auxiliary made itself responsible for the salary of the operator of the film during the week.

The delegates to the State convention held in October at Wilkes-Barre were: Mrs. Howard U. Miller, Mrs. Wellington D. Griesemer, and Mrs. Ralph Reber; alternates, Mrs. Cecil Freed, Mrs. William Krick and Mrs. Edmund Lerch.

Elk-Cameron.—The auxiliary met at the Hyde Hotel, Ridgway, Sept. 18.

Mrs. Frank Dwyer, Renovo, district councilor, conducted the meeting. The following officers were elected: President, Mrs. L. Z. Hayes; vice president, Mrs. A. C. Luhr; secretary, Mrs. N. R. Bender; treasurer, Mrs. J. E. Madara.

Mrs. Edward Lyon, past State president, gave a talk and detailed the many reasons and possibilities of a woman's auxiliary.

The Elk-Cameron County Medical Society held their meeting at the same time: District Councilor David W. Thomas, Lock Haven, was the speaker, and Mrs. Thomas was a guest of the auxiliary.

At 5:30 dinner was served at the Hyde Hotel to members of the medical society and the auxiliary.

Erie.—On account of the State convention our October meeting was postponed to the ninth and was held at the Women's Club. Luncheon at 1:00 p. m., was followed by a short business meeting when the delegates of the convention gave their reports. Plans were made for a Halloween dinner dance, at which the auxiliary will entertain the doctors of the Erie County Medical Society.

Lehigh.—The meeting was held at the Woman's Club House, Oct. 9, at 2 p. m. Mrs. Cora Gangewere, treasurer, was authorized to send a check for \$100 to the Allentown Community Chest. Convention reports were given by Mrs. Frederick A. Fetherolf, Mrs. S. Mann Uhler, Mrs. Halbert H. Earp, and Mrs. J. Treichler Butz. Nine of our members attended the convention at Wilkes-Barre. Tea was poured.

Montgomery.—The Second District Councilor Meeting was held at the Plymouth Country Club, Sept. 13, with 150 members present from Berks, Bucks, Delaware, Chester, Schuylkill, and Montgomery Counties.

Mr. Herbert B. Shearer, president, Montgomery County Auxiliary, welcomed the visitors and Mrs. John A. Farrell, Chester County, second district councilor, presided. Mrs. Robert Tomlinson, Wilmington, Del., the National Auxiliary president, gave a talk about the importance of welfare activities. Mrs. Edward Lyon, Williamsport, the State Auxiliary president, also spoke.

Greetings from the Philadelphia auxiliary were brought by Mrs. Wilmer Krusen and Mrs. W. Burrill Odenatt. The auxiliary members later joined the medical society group for dinner.

Mrs. Herbert B. Shearer, Mrs. Joseph E. Beideman, and Mrs. Camille J. Flotte were delegates to the State convention held in Wilkes-Barre, Oct. 1 to 4. Several of our members attended some of the sessions. An impressive memorial service for deceased members of the Woman's Auxiliary to the State Society was conducted by Mrs. J. Newton Hunsberger, Norristown. During the tribute Mrs. William A. Weaver, Wilkes-Barre, played *The Rosary* on the organ.

Northampton.—The fall meeting was held Sept. 12, at Ross Common Manor in the Poconos. Hostesses were: Mrs. Glenn G. Klock, Mrs. J. J. Graner and Mrs. J. Edward Brown. There were 25 members present, and Mrs. Arthur S. Fox, president, presided. A contribution of \$100 was sent to the Medical Benevolence Fund.

A change was made in the delegates to the State convention, Mrs. Francis J. Conshan as delegate instead of Mrs. J. Edward Brown.

The president appointed as hostesses for October: Mrs. James E. James, Mrs. Michael Stolfo, and Mrs. Arno R. Zack, all of Bethlehem.

Philadelphia.—The Philadelphia auxiliary started its fall activities under the leadership of the new president, Mrs. Edward J. Klopp.

Following the first business meeting of the season, Charles H. La Wall, dean, Philadelphia College of Pharmacy and Science, addressed the auxiliary on "Fads and Frauds in Foods and Drugs." This is a field on which the searchlight of truth should be turned, for Dr. La Wall told of many dangerous frauds that are being perpetrated on the public, and showed by graphic charts how the unscrupulous advertiser of dangerous drugs and cosmetics evaded the pure food laws. Tea followed.

Mrs. Milton F. Percival, the president-elect and chairman of the Ways and Means Committee, has launched

a program of activities to meet the ever-increasing demands of these trying times.

The first card party was held Oct. 15, in the county medical building, preceded by a fashion show conducted by Mrs. Fielding O. Lewis. The sale of home-made cakes and candy helped to increase the proceeds.

Westmoreland.—The auxiliary held their first fall meeting Sept. 13, at the Elks' Club in Greensburg. Mrs. Charles D. Ambrose, Mrs. Walter Bortz, and Mrs. Oscar B. Snyder were appointed delegates to the State meeting, with Mrs. R. E. Lee McCormick, Mrs. James M. Mayhew, and Mrs. John S. Silvis as alternates. A letter from Miss Irwin, superintendent, Westmoreland Hospital, was read thanking the ladies of the auxiliary for their assistance in making the dresses for the children. The announcement of the October meeting was made that a luncheon would be given at the Greensburg Country Club to be followed by a play given by ladies from Pittsburgh. The title of the play is "History of Medicine," and everybody was reminded to bring any medical antique they might have or could collect.

After bridge, the doctors joined their wives at dinner; 50 were present.

Medical News

Births

TO DR. AND MRS. RAYMOND F. CAMPBELL, Norristown, a son, Sept. 23.

TO DR. AND MRS. W. STUART WATSON, Norristown, a daughter, Sept. 25.

Marriages

MISS MARGARET MILLAR to Dr. H. Ernest Tompkins, Norristown, June 26.

MISS JULIANA CONNELLY, Pittsburgh, to Dr. Archibald W. Fees, Carrolltown, Sept. 10.

DR. JEAN MALCOLM HEAD to Dr. Melbourne John Cooper, both of Philadelphia, Sept. 12.

MISS ANN STAMBAUGH, Philadelphia, to Dr. Albert Warren Kitts, Kennett Square, recently.

MISS VIRGINIA SUTTON to Dr. William H. Mayer, both of Pittsburgh, Nov. 3.

MISS SUSAN ROTH, daughter of Dr. and Mrs. J. LeRoy Roth, to Mr. Paul Roberts, all of Conshohocken, Sept. 27.

MISS GERTRUDE McMULLIN, daughter of Dr. Francis A. McMullin, to Mr. G. O. Ludwig, all of Philadelphia, Sept. 8.

Deaths

LOUIS F. ARENSBERG, Brownsville; University of Michigan Medical School, 1867; aged 91; Sept. 21; National Commander of the G. A. R., 1924-25; previously served as Commander of the Department of Pennsylvania and a trustee of the Soldiers' and Sailors' State Home at Erie.

CLARK WATSON BANKS, Derry; Toledo Medical College, 1888; aged 74; Aug. 31, chronic myocarditis.

JOHN ALBERT BOGER, Philadelphia; University of Pennsylvania School of Medicine, 1889; aged 65; Oct. 20, suddenly at his home. Dr. Boger received his early education in Philadelphia, and was on the surgical staff of the Samaritan Hospital (now Temple University Hospital) during its early existence; also surgeon to the Episcopal, Stetson, and St. Mary's hospitals. For a number of years he was the club physician for the Philadelphia National League Ball Club, and medical examiner for the Philadelphia Rapid Transit Company.

For many years he was police surgeon, but resigned from this appointment 2 years ago. He was a member of his county and State medical societies; a Fellow of the A. M. A.; and a Fellow of the American College of Surgeons. He is survived by 2 brothers and a sister.

ALEXANDER NELSON BOOTH, Bentleyville; Jefferson Medical College, 1887; aged 70; Sept. 28.

PHILIPP FISCHELIS, Philadelphia; University of Berlin, 1885; aged 79; Oct. 30, at his home from heart disease. Dr. Fischelis was born in Odessa, Russia, Dec. 8, 1857. He studied biology at the Universities of Odessa, Leipzig, and Königsberg. He came to this country in 1889 where he began the practice of medicine, at the same time engaging in pedagogic work. At the time of his death he was professor of histology and embryology and general pathology at the Temple University School of Dentistry. From 1893 to 1902 he was instructor in rhinology and laryngology at the Philadelphia Polyclinic Hospital; from 1900 to 1909 was on the laryngologic staff of Mt. Sinai Hospital; in 1903 he was appointed demonstrator in histology and embryology in the Medico-Chirurgical College of Philadelphia, and was advanced to associate professor in 1909 which position he retained until 1917, and in that year was appointed professor of histology, embryology, and general pathology at the Philadelphia Dental College, which later became the School of Dentistry of Temple University. During the World War he served in the Volunteer Medical Service Corps.

He was a contributor to the medical literature both here and abroad, his more important papers being on the "Development of the Thyroid and Thymus Glands," "Development of the Lungs," and contributed the chapter on "Reproduction and Evolution" in Ott's *Textbook of Physiology*. He was co-author with Dr. I. Norman Broomell, dean of Temple University School of Dentistry, of the textbook, *Anatomy, Histology, and Embryology of the Mouth and Teeth*.

He is survived by 3 sons, one of whom, Robert P. Fischelis, is president of the American Pharmaceutical Association, and secretary to the New Jersey State Board of Examiners, and 3 daughters.

THOMAS CHALMERS FULTON, Philadelphia; Jefferson Medical College, 1880; aged 80; Sept. 27. Dr. Fulton was born in Central Pennsylvania, the son of a minister. When he began practice he was closely associated with physicians in what was known as Northeast Philadelphia. He was active in the Kensington Branch of the Philadelphia County Medical Society, the second branch organized in the city. An original member of the Medical Club of Philadelphia which organization was mostly endeared to him. At a special meeting of the Medical Club, Sept. 27, in the auditorium of the Philadelphia County Medical Society building to discuss a change in by-laws, Dr. Fulton had shortly closed his discussion in regard thereto when he suddenly died amidst his medical friends. He was a member of his county and State medical societies and a Fellow of the A. M. A. For a number of years he had limited his practice to diseases of the eye, ear, nose, and throat. He was unmarried.

ALFRED GATES, Lebanon; Hahnemann Medical College, Philadelphia, 1890; aged 64; Aug. 10, heart disease.

WALTER MYERS GILL, Dormont; University of Pennsylvania School of Medicine, 1888; aged 69; July 12.

MRS. HANCOX, wife of Dr. Cecil W. Hancox, Pottstown; recently, in the Johns Hopkins Hospital, Baltimore.

JOHN MAXWELL HEADING, Johnstown; College of Physicians and Surgeons, Baltimore, 1886; aged 78; Aug. 15, chronic myocarditis.

GEORGE CLYDE KNEEDLER, Pittsburgh; University of Pittsburgh School of Medicine, 1892; member of his county and State medical societies and a Fellow of the A. M. A.; aged 66; Oct. 12.

ALDEN BLODGETT MACDONALD, Warren; Jefferson Medical College, 1904; on the staffs of the Warren General Hospital and the Warren State Hospital; president of his county medical society; member of his State Medical Society and a Fellow of the A. M. A.; aged 54; Aug. 16, carcinoma of the liver.

BERNARD ANTHONY MAFFUCCI, Dunmore; Temple University School of Medicine, 1923; aged 35; July 22.

BERTRAM EDWIN MARSHALL, New Brighton; New York Homeopathic Medical College, 1899; served during the World War; on the staff of the Beaver Valley General Hospital; aged 60; Aug. 30, heart disease.

WILLIAM ORLANDO MARTIN, Philadelphia; Medico-Chirurgical College, 1898; member of his county and State medical societies; Oct. 3. He is survived by his widow.

ROBERT BURNE MCKEAGE, Scranton; Medico-Chirurgical College, Philadelphia, 1893; member of his county and State medical societies and a Fellow of the A. M. A.; aged 64; Oct. 3. He is survived by his widow and a son.

REUBEN ELLSWORTH MERCER, Pittsburgh; University of Pittsburgh School of Medicine, 1892; aged 64; June 26, lung abscess and hemorrhage.

ROBERT WESLEY RANDALL, Royersford; Medico-Chirurgical College, Philadelphia, 1911; aged 44; Oct. 20, heart disease. He is survived by his widow and 2 children.

HENRY JAKOB STRAUCH, Donora; Jefferson Medical College, 1928; aged 42; Sept. 8, in the *Morro Castle* disaster.

JAMES HENRY THOMPSON, Pittsburgh; Hahnemann Medical College, Chicago, 1886; aged 75; July 12.

WILLIAM HAINES TOMLINSON, Swarthmore; Hahnemann Medical College; aged 89; Oct. 10. Dr. Tomlinson was a graduate of Westtown School. He had been a resident of Swarthmore 21 years, maintaining an active practice there until 1927. Prior to going to Swarthmore he practiced in Philadelphia and Avondale. He is survived by his son.

WILLIAM WALLING VAN DOLSEN, Philadelphia; University of Maryland Medical School, 1909; aged 48; Oct. 3, heart disease. Dr. Van Dolsen was born in New York City. In 1914 he was graduated from the Medico-Chirurgical College of Philadelphia. He became associated in obstetrics and gynecology with the late Dr. John Cooke Hirst, Philadelphia. Dr. Van Dolsen was a member of the staffs of St. Agnes' Hospital, the Graduate Hospital, and the Germantown Hospital. During the World War he served 19 months in France as a captain in the Field Hospital Unit of the Rainbow Division. He was a member of his county and State medical societies and a Fellow of the A. M. A. A widow, a daughter, and a son survive.

JOSEPH MILTON WEAVER, Allentown; Medico-Chirurgical College, Philadelphia, 1906; aged 52; Oct. 6, suddenly at his home. Dr. Weaver was born in Allentown, Aug. 14, 1882, the son of Jacob D. and Maria Kressley Weaver, and lived there his entire life. He was a graduate of the Allentown High School and Muhlenberg College, 1903. He served his internship at the Allentown Hospital and was pathologist at the institution for a period of 5 years. Since that time he has continuously served on the medical staff. He was a member of his county, State, and the Lehigh Valley medical societies, and a Fellow of the A. M. A. Three sisters survive.

JOHN ALBERT WILLIAMS, Pittsburgh; University of Pittsburgh School of Medicine, 1892; member of his county and State medical societies and a Fellow of the A. M. A.; aged 67; Sept. 20.

Miscellaneous

DR. JOHN P. HARLEY has been appointed consulting surgeon at the Lock Haven Hospital.

DR. HAROLD G. HORTON, Saltillo, Huntingdon County, recently fractured his left humerus in a fall in his home.

DR. M. W. BRODY is a new member of the Warren State Hospital staff, and has applied for membership in the Warren County Medical Society.

DR. WILLIAM N. BRADLEY, Philadelphia, has been appointed on a special committee on the revision of the U. S. Pharmacopeia and National Formulary to represent the American Academy of Pediatrics.

DR. JACOB F. CRANE has been placed in charge of the transient camp, situated near Warren, and has applied for membership in the Warren County Medical Society. Dr. Crane was formerly on the staff of the Warren State Hospital.

THE PHYSICIANS' SQUARE CLUB of Philadelphia gave a dinner, Oct. 30, at the Hotel Sylvania, Philadelphia, as a testimonial to Dr. Joseph B. Wolfe, who is resuming his practice after several months' illness.

DR. FRANK H. KRUSEN, Philadelphia, in charge of the Department of Physical Therapy at Temple University Hospital, has been appointed a member of the Council on Physical Therapy of the American Medical Association.

A TESTIMONIAL DINNER was given to President Moses Behrend of the State Society by the members of the staffs of the Mt. Sinai and Jewish Hospitals, Philadelphia, at the Locust Club, Oct. 17. Dr. Behrend was presented with a wrist watch.

THE FIRST OF A SERIES of short, instructive articles on diet appeared in the Pittsburgh *Sun-Telegraph* recently. These articles are written exclusively for this paper by a committee of representative physicians of the Allegheny County Medical Society.

DR. MAXWELL SCARF, Philadelphia, will speak at the third of a series of 9 health talks given by the Mt. Sinai Hospital, on "Arthritis and Rheumatism," Nov. 28, 8:30 p. m., at the hospital.

DR. FRANK E. LEIVY, Philadelphia, presented the address, Oct. 24, on "Diet and Health."

THE RADIOLOGICAL SOCIETY of North America will hold its next annual meeting at the Hotel Peabody, Memphis, Tenn., Dec. 3 to 7. The medical profession is cordially invited to attend. Further information may be obtained by addressing Dr. Donald S. Childs, secretary-treasurer, 607 Medical Arts Bldg., Syracuse, N. Y.

THE PHILADELPHIA COLLEGE OF PHARMACY AND SCIENCE, on Oct. 10, presented the first annual Proctor International Award to Dr. John Uri Lloyd, Cincinnati, physician, pharmacist, author, and educator. Dr. Lloyd was selected in recognition of his contributions to the sciences promoting health. President Wilmer Krusen of the college conferred the award.

THE OPENING EXERCISES of the Graduate School of the University of Pennsylvania for its 51st year were held in Houston Hall, Oct. 5. Detlev W. Bronk, professor of biophysics and director of the Eldridge R. Johnson Foundation in Medical Physics, delivered the principal address. Dr. H. Lamar, dean of the Graduate School, presided.

THE JEWISH HOSPITAL ASSOCIATION OF PHILADELPHIA was bequeathed \$5000 in the will of Dr. Edwin A. Jarecki, for more than 30 years chief resident physician at the hospital, to establish a free bed in memory of his father. He gave \$1000 to the Hamot Hospital in Erie to endow a free bed, and \$100 to the same institution for a memorial tablet in memory of Julia Pelck Jarecki.

ACCORDING TO *The Philadelphia Record*, Oct. 11, the Pennsylvania Optometric Association conducting its

38th annual convention in Philadelphia empowered its legal department to take action against physicians and school nurses who make defamatory remarks about optometrists. The member introducing the resolution declared the attitude of the medical profession toward optometrists was indefensible.

THE THIRTEENTH ANNUAL CONVENTION of the International Association of Police and Fire Surgeons and Medical Directors of Civil Service Commissions was held in Philadelphia in September. The following officers were elected for the ensuing year. President, Harry M. Archer, New York City, former secretary of the association; vice president, George L. Wright, Syracuse, N. Y.; secretary-treasurer, Arthur Wildman, Brooklyn, N. Y.

THE SIXTH S. WEIR MITCHELL ORATION of the College of Physicians of Philadelphia was delivered by Dr. S. W. Ranson, Northwestern University Medical School, Oct. 17, on "The Hypothalamus: Its Significance for Visceral Innervation and Emotional Expression." The speaker's address was of interest to laymen and practicing physicians as much as to neurologists or neurophysiologists, as it dealt with certain striking conditions such as abnormal sleep, somnolence, etc.

THE ANNUAL CONFERENCE of the National Society for the Prevention of Blindness will be held in New York City, Dec. 6 to 8. Dr. Edward Jackson, Denver, Colo., the first recipient of the Leslie Dana Gold Medal which is awarded annually for outstanding achievements in the prevention of blindness and conservation of vision, will deliver the principal address on "A Wide Basis for Blindness and Prevention." Among the topics that will come up for discussion will be the causes of blindness: sight-saving classes for children with seriously defective vision; prevention of eye accidents; and prevention of prenatal infections which may cause blindness.

THE LATE DR. JONATHAN M. WAINWRIGHT arranged that a meeting of the Pennsylvania Association of Tumor Clinics be held in the Lankenau Hospital, Philadelphia, in November, 1934. Pursuant to these arrangements the date has been set for Thursday, Nov. 22, beginning at 9:00 a. m. The session will continue until late afternoon. A dinner will be held in the evening and further consolidation of the organization will be affected if it seems useful to do so. The exact program will be announced later. Tentatively, there will be discussions of growths in the neck, retroperitoneal growths and tumors of the bowel with exhibition of patients, methods of diagnosis, treatment, and follow-up. Other subjects will be added as seems expedient.

Representatives of tumor clinics are requested to notify Dr. Stanley P. Reimann, director of the Research Institute of the Lankenau Hospital, Corinthian and Girard Aves., Philadelphia, if they anticipate attending the meeting.

THE PHILADELPHIA COLLEGE OF PHARMACY AND SCIENCE, Sept. 20, launched a 5-year airplane survey of nollen air contaminants in the region for 50 miles about Philadelphia. Daily flights will be made during this period, and daily samples taken of air, every 250 feet up to an altitude of 2500 feet in order to determine air pollution in this section. In a test flight an airplane 1200 feet up collected 200 cubic feet of air, examination of which revealed 132,000 grains of pollen, 95 per cent of which was the ragweed pollen.

Dr. Wilmer Krusen, president of the college, presided. The speakers were: State Secretary of Health Theodore B. Appel; Dean Charles H. LaWall; Director of Public Health of Philadelphia J. Norman Henry; Randle C. Rosenberger, chairman of the Air Hygiene Commission of the Philadelphia College of Physicians; and Arthur C. Morgan, a former president of The Medical Society of the State of Pennsylvania. A model of the airplane which will be used in conducting the experiment was presented to the college.

THE BUREAU OF NARCOTICS of the Treasury, Washington, D. C., reports an increase in opium traffic which hitherto was on the decline in the United States. It would seem that the illicit importation of other drugs is not decreasing except cocaine. The Bureau considers that the present domestic control of narcotics is being carried on with maximum efficiency, and that conditions are vastly better than 3 years ago. According to the report New York still remains the favorite eastern port of entry of contraband narcotics which are distributed over the eastern half of the country. The Bureau further states that by 1932 heroin had practically supplanted morphine as a drug of addiction in every part of the United States except the Pacific coast. In 1933 heroin appeared in greater quantities in the Pacific coast area; Europe is the place of its manufacture. It is of interest to note that where nations which produce narcotics cooperate, illicit shipments into the United States are quickly eliminated.

THE ONE HUNDRED AND TENTH ANNUAL SESSION of the Jefferson Medical College was inaugurated on Sept. 24. Mr. Alba B. Johnson, president of the Board of Trustees, presided. The introductory lecture was delivered by Thomas C. Stellwagen, professor of genito-urinary surgery, on "Coöperation and Loyalty." Dean Ross V. Patterson welcomed the 562 members of the student body. The new students consisted of 148 freshmen and 16 juniors.

The members of the first year class were prepared for medical study in 62 different institutions and all have received collegiate degrees. There were 550 applicants for admission to the first year class who submitted formal certificates of preliminary education. Approximately 260 applicants with college degrees were declined admission. Among the members of the class are sons of 7 Jefferson graduates and 6 other relatives of Jefferson graduates. There are 7 sons of physicians, not graduates of Jefferson Medical College.

THE 15TH ANNUAL FALL MEETING of the Eastern Section of the American Sanatorium (consisting of the heads of sanatoria in states east of the Mississippi River) was held at White Haven Sanatorium, White Haven, Pa., Oct. 4 and 5; Joseph Walsh, Philadelphia, medical director of the White Haven Sanatorium, presided. Dr. Cole B. Gibson, Meriden, Conn., presided at the business meetings.

The following from this State, all of Philadelphia, participated: John F. Flick, "The Results of Thoracoplasty in the Treatment of Pulmonary Tuberculosis"; Burgess Gordon, "The Mechanism and Use of Abdominal Compression in the Treatment of Pulmonary Diseases"; John A. Sweeney and Martin J. Sokoloff, "Artificial Pneumothorax Work in the White Haven Sanatorium"; J. W. Cutler, "The Management of Adhesions Complicating Artificial Pneumothorax."

The following officers were elected: President, Martin Collier, Camden, N. J.; vice president, Ezra Bridge, Rochester, N. Y.; secretary-treasurer, Ernest B. Elverson, Rutland, Mass. The 1935 Convention will be held in Rochester, N. Y.

DR. FRED H. ALBEE, New York City, appeared before Supreme Court Justice Leary, Oct. 6, seeking reinstatement to the New York County Medical Society. This body suspended him for one year last spring on the charge of unethical advertising.

After listening to both sides, Justice Leary reserved decision. He had previously refused to dismiss the case after Mr. Reed Dawson, for the medical group, argued that it was not a matter for the court inasmuch as the society had lived up to its By-laws and accorded the member a fair trial.

The advertising to which the society objected appeared on posters and menus of the Seaboard Airline Railway after Dr. Albee had asked for better service to Venice, Fla., where he was opening a sanatorium. The surgeon has insisted this matter appeared without his approval and that he ordered it withdrawn when he learned of it.

Mr. Dawson contended that the society had a right to suspend a member, submitting the minutes of the committee which voted the suspension to prove a fair trial had been given. He also submitted the minutes of the meeting when the entire membership approved the action of the committee.

AT A MEETING of the Pennsylvania State Board of Medical Education and Licensure, June 29, the following action was taken: The license of Dr. Arthur F. P. Huston, Pittsburgh, was suspended. Dr. Huston pleaded guilty in the Allegheny County court, March 27, to the illegal sale of narcotics. He was ordered to pay the costs of prosecution and sentence was suspended.

The license of Dr. Henry C. Lawton, Camp Hill, was also suspended. Dr. Lawton was convicted in the Dauphin County court for trafficking and sale of narcotic drugs to known addicts. He was fined \$750 and placed on probation for 2 years. His liquor license was revoked on June 20, 1933.

The license of Joseph S. Kowaleski, Shamokin, was revoked. Dr. Kowaleski had his license suspended in April, 1925, for drug addiction and restored in September, 1925. His license was again suspended in November, 1927, and restored in August, 1928.

The license of Mrs. Frances M. Pisanko, mid-wife, was revoked because of her addiction to narcotics.

THE UNITED STATES PUBLIC HEALTH SERVICE, co-operating with the Pennsylvania Department of Health, Division of Genito-Urinary Clinics, has forwarded a communication to all the physicians of Pennsylvania containing *Veneral Disease Information*; form 972 which consists of rules to be observed in the care and management of cases of gonorrhea; form 973 which consists of rules to be observed in the care and management of cases of syphilis; and a mailing card to be sent to the Pennsylvania Department of Health at Harrisburg by the physician to obtain a supply of each of these folders. There is also enclosed a descriptive announcement of *Veneral Disease Information*; a letter accompanying these forms calls attention to this monthly publication issued by the United States Public Health Service which is designed to inform the profession of the latest advances in the field of syphilis and gonorrhea. The subscription price of *Veneral Disease Information* is 50 cents a year, which is sent to the Superintendent of Documents, Government Printing Office, Washington, D. C.

Book Reviews

From a reviewer we expect information and advice which will guide us safely and to our profit, warning us of the poor, the mediocre, the commonplace, and inviting our attention to merit.

MODERN TREATMENT IN GENERAL PRACTICE: Cecil P. G. Wakeley, D.Sc., F.R.C.S., F.R.S.E. William Wood & Co., 1934. \$4 net.

This volume is very helpful to the general practitioner, as it gives a concise review of many subjects in medicine and surgery.

The topics are brief and clear with special emphasis on diagnosis and treatment. There are a few plates which very clearly illustrate the subjects being discussed.

SURGICAL CLINICS OF NORTH AMERICA: Issued serially, one number every other month. Volume 14, Number 4. Chicago Number—August, 1934; 288 pages with 88 illustrations. Per clinic year February, 1934, to December, 1934; paper, \$12.00; cloth, \$16.00 net. Philadelphia and London: W. B. Saunders Co., 1934.

It is indeed difficult to single out any special case in this number; special reference may, however, be made

to those reports on the treatment of fractures, gallbladder disease, and peptic ulcer. Much practical knowledge may be derived from the other cases reported and commented upon.

THE SPASTIC CHILD: A RECORD OF SUCCESSFULLY ACHIEVED MUSCLE CONTROL IN LITTLE'S DISEASE. Marguerite K. Fischel. C. V. Mosby Co., St. Louis, Mo., 1934. \$1.50 net.

An interesting history of a mother's faithful, determined, and successful efforts to cure her child who seemed hopelessly sick. The book contributes very little to medical literature, and fails to make clear to the parents of these children just what their responsibility is. The author correctly states that the spastic child's opportunity depends upon early diagnosis and treatment, but she does not emphasize the fact that each "spastic child" presents individual problems in diagnosis and treatment which can best be studied and managed by the combined efforts of specially trained physicians and physical therapists with the cooperation of the parents.

THE ESSENTIALS OF PHYSICAL DIAGNOSIS. Robert W. Buck, M.D., assistant professor, Preventive Medicine and instructor in Physical Diagnosis, Tufts College Medical School; physician to Boston Dispensary. 259 pages with 21 illustrations. Philadelphia and London: W. B. Saunders Co., 1934. Cloth, \$3 net.

A handy reference book for the general practitioner and internist giving a brief review of the importance of clearness and accuracy in recording a history with a more detailed discussion of the four essential points in making a physical examination, namely: Inspection, palpation, percussion, and auscultation.

The different plates bring out many important points, illustrating how to examine certain parts of the body. The success of treatment and follow-up of a patient will be noted, by doing a thorough physical examination as described in this book.

BRONCHOSCOPY, ESOPHAGOSCOPY, AND GASTROSCOPY: Chevalier Jackson, M.D., Sc.D., LL.D., F.A.C.S., Professor of Bronchoscopy and Esophagoscopy, Temple University; Bronchoscopist, Temple University Hospital; and Chevalier L. Jackson, A.B., M.D., M.Sc. (Med), F.A.C.S., Professor of Clinical Bronchoscopy, Temple University; Bronchoscopist, Temple University Hospital. Third Edition, reset. 485 pages with 207 illustrations and 15 color plates. Philadelphia and London: W. B. Saunders Co., 1934. Cloth, \$9 net.

This third edition has been made necessary by the remarkable widening of the field of peroral endoscopy, as it includes not only foreign body cases but also the field of bronchoscopy for disease. It has been translated into both French and Italian.

The rewriting of the chapters dealing with the various phases of bronchoscopy for disease and the inclusion of 46 additional illustrations and 5 additional color plates necessitated resetting of practically all the pages.

As in previous editions this is a working manual setting forth the fundamentals of the working knowledge of endoscopy brought up to date through the 12 years additional experience of the authors and their co-workers since the last edition in 1922.

Many chapters have been rewritten, notably those on anesthesia; position of the patient; diagnosis and treatment of disease of the tracheobronchial tree, including growths benign and malignant, pulmonary abscess, and bronchiectasis; also the one on gastroscopy. Additional mechanic problems are dealt with including the staple, double-pointed tack and removal of pins from the periphery of the lung by use of the newly devised costophrenic bronchoscope.

For collateral reading, the authors have appended a valuable bibliography of publications bearing upon the statements set forth in the text of the book. Especial

attention is called to 4 publications giving complete tabulations of cases which elucidate the difficulties and solutions in hundreds of foreign body cases termed by the authors "canned experience."

This latest publication from Dr. Jackson's masterly pen should be intently studied by every bronchoscopist and appeal to every internist who is interested in bronchoscopy from a diagnostic point of view.

ELECTROCARDIOGRAPHY. Chauncey C. Maher, B.S., M.D., assistant professor of Medicine, Northwestern University and Montgomery Ward Medical Clinics; Attending Internist at Cook County Infirmary and Cook County Hospital and Passavant Memorial Hospital, Chicago, Ill. William Wood & Co., Baltimore, 1934. Price, \$4.00 net.

The author states that this book is written for the general practitioner, the medical student, and the specialist exclusive of the cardiologist. It is profusely illustrated, containing 95 electrocardiograms in addition to several other figures.

The material is presented in an attractive manner. The author states that controversial literature may be found elsewhere. If he means by this that he has tried to avoid controversial points, the book suffers from lack of rigorous editing to weed out the major and minor deviations from generally accepted doctrine. For a book of this size, relatively too much space is devoted to abnormalities of cardiac mechanism in comparison with that allotted to certain other forms of cardiac involvement in which the electrocardiogram fulfills a more important diagnostic function.

In the opinion of the reviewer the book will require drastic revision before it can be recommended with propriety to medical students or general practitioners.

CHECKING UP ON THE OTHER DOCTOR

It occasionally happens in the experience of most of us that a dissatisfied patient asks our opinion of the results of treatment by some other physician, or he may seek some other physician's opinion of our methods and results. If there ever was a situation in which silence is golden, it is this. There is nothing to be gained by any one in venturing a judgment of any other physician's results, unless that opinion is honestly favorable. It is never possible to ascertain all the factors with which the attending physician or surgeon had to contend. A patient is wholly unlike a mechanism, all the factors entering into the construction or repair of which are capable of measurement. Hence the difficulties of a just evaluation of a physician's treatment. Besides, such an attitude often leads to a charge of malpractice. If the most approved scientific service always produced desirable results, and the opposite produced bad results, but how often have good results followed indifferent and poor results the most approved treatment. Costly and annoying suits might be prevented if greater care were exercised to avoid being intrigued into an opinion of another's work. In our estimate of another doctor's work the lines on the tomb of Sir Walter Raleigh in Westminster Abbey are most appropriate, even while we are in the flesh: "Should you reflect on his errors, remember his many virtues, and that he was mortal."—Editorial, *Jour. M. S.*, June, 1933.

NO WITNESS TELLS THE TRUTH

"Although few witnesses deliberately lie when testifying in court, not one tells the truth." Judge Horace Stern said in a recent address. "What a man thinks is the truth rarely is," the Judge continued, "especially in accident and damage cases."

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WHY WOMEN DIE IN CHILDBIRTH*

Some Reasons and Remedies

FREDERICK C. HOLDEN, M.D., NEW YORK CITY

Reduction of maternal mortality is the outstanding medical problem in the public mind today. It is also the issue causing the most profound concern to the profession.

For many years it has been a well known fact that the maternal death rate in this country has been excessively high. More than 17,000 maternal deaths occur each year and the rate is rising. Every day in New York City alone 2 women die out of every 300 delivered.

The New York Academy of Medicine realizing the gravity of the situation undertook in coöperation with the New York Obstetrical Society a painstaking analysis of every death reported during a three-year period, which report was published in November, 1933.

There has been considerable criticism of and disagreement about this report; nevertheless, it was such a bombshell that it has shaken the public and profession out of any complacent attitude or indifference, or procrastination in the matter of maternal mortality statistics. Its publication resulted in active measures being taken by many communities, both state and local, throughout the United States to determine what might be done to improve conditions. Several studies were begun currently with the New York investigation; for example, one in Philadelphia, the report of which was made in May of this year. The U. S. Children's Bureau has studied the situation in 15 states. It is significant that the findings of these studies are closely alike, whatever the locality, and the American situation is like that in Great Britain.

Although most papers discussing puerperal deaths approach the subject from the angle of sepsis, hemorrhage, toxemias, and the treatment of the symptoms, I shall concern myself chiefly

with fundamental considerations having to do with the preventable causes of maternal deaths such as insufficient training of the doctor, ignorance of the laity whereby the patient fails to make use of the facilities available to her, and unsupervised hospitals. As for the remedies, I shall discuss the betterment of medical training, both undergraduate and postgraduate, the education of the laity, and the organization of the hospital and the community along all those lines which will lead toward better obstetrics.

REMEDIES

Better Medical Training.—One of the most important factors in a plan looking toward reduction of maternal mortality is the better teaching of obstetrics in our medical schools. The Council on Medical Education and Hospitals of the American Medical Association must see to it that as much time is allowed for the undergraduate teaching of obstetrics as is allotted to either medicine or surgery for the reason that a large majority of medical graduates actually practice obstetrics. The profession must also realize that, even with adequate schooling, the graduate is no more competent to manage an abnormal labor—and we never know when a case will become abnormal—than he would be to do a major operation. Therefore, in the future, graduates who are to practice obstetrics should receive adequate postgraduate training consisting of a general two-year rotation internship with a minimum of 6 months in obstetrics in an approved hospital.

Each state medical society should go to the legislature and see that such laws are passed.

In order to make this plan of postgraduate training possible, it will be necessary to increase the facilities for obstetrical training throughout the country. At the present time these are

* Read before a General Meeting of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 3, 1934.

wholly inadequate. I am besieged daily by doctors, aware of and distressed by their insufficient obstetrical experience, who are willing to take time from or to endanger lucrative practices in order to accept some obstetrical internship; but there is nothing to offer them, for a large number of excellent volunteer hospitals have no obstetrical services. For example, among New York City hospitals, Mt. Sinai, Roosevelt, St. Luke's, Post-Graduate, and Beekman Street, with a total bed capacity of over 2000, have no obstetric beds. The French Hospital is at present reconstructing its 8-story nurses' home and turning it into an obstetrical pavilion. Moreover, even in general hospitals with large obstetric services it is often the case that only a few of the interns receive obstetrical training. In Bellevue Hospital, for instance, of 150 interns each year, no more than 10 receive this training.

It is thus evident that, if the legislation suggested were enacted, facilities for postgraduate obstetrical training would of necessity have to be increased.

Education of the Laity.—The next important remedy is the education of the laity. People are too much inclined to the idea that pregnancy and childbirth, being "natural processes," require no particular care. Therefore, they do not take full advantage of the facilities which are available to them. There is need of educating the laity how to choose the physician and the hospital. It is also necessary that the patient herself know what is the normal course of pregnancy and labor, recognize the danger signals, and appreciate the importance of prenatal and postnatal care.

Boys and girls receive training preparing them to be citizens, but not to be parents. This prudence is paid for by suffering, ill health and, in some cases, by a preventable mortality which is due to the patient's ignorance. There should be suitable courses in all high schools and colleges to fill in this gap in our education. The general educational program of the laity can and should be carried out by way of the radio and the press; by social and civic agencies such as settlements, women's clubs, junior leagues, schools, parent-teachers' groups, and young people's societies; and through the postoffice whereby every family can be reached by educational pamphlets on the subject.

In our city institutions there are many instances of serious sickness or death just because the patient refused to follow instructions or did not return for needed prenatal care when directed to do so. This failure may be partly chargeable to the perfunctory character of the

instruction given and the absence of facilities for follow-up.

The Hospital.—This is an important factor from the standpoint of safety to the patient and education of the doctor and nurse in obstetrics. In the general hospital the obstetrical cases should be segregated and if possible placed in a separate pavilion, with additional facilities for isolation of all infected or potentially infected cases. There should be a separate staff of nurses and interns for this pavilion. There is no place in this program for the small unsupervised private sanatorium.

As an excellent example of a fine center of obstetric education, a few outstanding points of De Lee's clinic may be mentioned:

1. A hospital building solely for obstetrics with all facilities for proper prenatal and postnatal care.

2. A separate building manned by its own nursing and medical staff for all infected or potentially infected cases.

3. Courtesy privileges open to licensed physicians, with the courtesy staff subject to the rules of the hospital and under the direct supervision of the well trained resident and attending staff. This latter is a very important step toward better obstetrics, for it affords the general practitioner continued postgraduate training; it affords the patient supervision by a well trained staff of specialists; it makes consultations easy to obtain and obligatory in all abnormalities; and most important of all, it does away with the need of the small private sanatorium with inadequate equipment and inefficiency or absence of supervision—a type of institution to which a large number of general practitioners must turn under present conditions because most of the approved hospitals deny them entry.

4. A well organized outpatient department with the dispensary located in the center of the congested district, thus making prenatal and postnatal visits easy for the impoverished patient, and also making possible delivery in her own home under aseptic technic and careful supervision, the technic being especially adapted for the simplest home.

5. Monthly staff conferences in which all abnormal cases of both hospital and home deliveries are carefully analyzed and discussed by the entire staff of attending obstetricians and courtesy members, by many interns, and by students.

6. The entire institution a part of the obstetric department and obstetric teaching of a medical college.

This is indeed a wonderful center for better obstetrics and for continued obstetric training.

The general plan of operation and technic of De Lee's outpatient department is being carried out very successfully in Los Angeles by Dr. L. G. McNeile in connection with the University of Southern California. The maternal death rate in California decreased in 1933 as compared with 1932, dropping from 5.7 to 4.8 per 1000 births.

The New York Lying-In Hospital for many years has rendered outstanding obstetric service to the community and the profession in both its inpatient and outpatient departments. We need more such hospitals both for the training of doctors and nurses and for the poor of the city, as it is neither feasible nor necessary to have all obstetric patients hospitalized.

Community Organization.—Maternal mortality is of too great significance to be studied just because of this present furor, then dropped and forgotten. A permanent organization or responsible committee under medical leadership should be developed in order to continue toward that most important objective: the reduction of maternal deaths to the lowest possible number.

An excellent example of the worth of such an organization is the work done in Essex County, N. J., where the maternal death rate for Newark, the most thickly populated city in that county, has decreased from 6.1 per 1000 in 1926 to 3.3 per 1000 in 1931. The Essex County Medical Society in 1923 appointed a Medical Commission for Maternal Welfare comprising prenatal, hospital, educational follow-up, statistical and financial aspects of the subject. As a result, prenatal care has been standardized on a high level and the percentage of prenatal care has increased from 10 to 64 per cent. Standard obstetrical record sheets have been developed, giving a uniform and complete obstetric history; a yearly obstetric report is obtained from each hospital; and there is a careful follow-up of all maternal deaths and still births by personal interview with doctor by doctor. For the better education of the doctors many obstetric lectures are given, and courses are sponsored in obstetrics, especially for the general practitioner.

This commission carries out 3 of the cardinal principles proposed in this paper: increased postgraduate training for the doctor, education of the laity, and supervision of the hospital.

A program so useful to maternal welfare throughout the country should be followed by each county medical society, adapted and modified to its individual needs, the whole being organized under the State Welfare Commission.

The Health Commissioner of New York City, Dr. John L. Rice, has appointed a committee called the Advisory Obstetric Council. The specific problems to be considered are institutional obstetrics, hospital staffs, proprietary hospitals, nursing homes, *etc.*, revision and control of prenatal care, midwives, home deliveries, education of the public, and the development of co-operation between medical, nursing, and other agencies in such a program.

Midwives.—If we consider the present training of the doctor inadequate, how can any one recommend increasing the practice of midwives? The proportion of graduates in medicine to the population is so high that there seems no excuse for continuing such a makeshift. For the isolated communities there is a place for the trained nurse who in addition has had special obstetrical training, illustrated by the excellent work accomplished in the mountains of Kentucky or by the English midwife who is a registered nurse with special postgraduate training. For the greater part of this country our program calls for the gradual elimination of the midwife and a greater supervision of those at present licensed.

Rôle of Birth Control in Maternal Welfare.—The toll which abortion takes on the health and life of the women in this country is ghastly.

It has been estimated that in this country there are over 1,000,000 abortions performed per year; 17 per cent of all maternal deaths in the New York report were due to abortions, and 25 per cent in the maternal mortality survey of 15 states.

Of the other maternal deaths, some were due to too high a degree of multiparity; in another group they were due to the fact that the women were in no physical condition to undergo the ordeal of pregnancy and parturition.

It has been definitely proven that there should be an average interval of 2 years between babies to maintain the health of both mother and baby.

For the reasons given as health and life-saving measures, the medical profession must take the lead in bringing proper and safe birth control information to the woman who is in need of such advice. Birth control clinics should not be considered as entities apart from other organized medical service. They should not be left to the laity, still less to unscrupulous commercial organizations. I agree with the proposal made by Dr. Sophia J. Kleegman before the New York Academy of Medicine, that the birth control clinic should be an integral part of every obstetrical service, and every patient should be given proper contraceptive instruction as part of her postnatal care.

The woman should also be educated as to what is safe and what is dangerous in contraceptive measures, and she should be taught to make the best use of facilities available to her.

This question has been left too long in the field of personal controversy. It should be included in all maternal welfare programs under the direction of the medical profession.

SUMMARY

The keynote to improvement lies in:

1. Improved undergraduate training enforced by the American Medical Association.
2. Postgraduate training for those who wish to practice obstetrics made compulsory for all future graduates by each licensing state board.
3. State and county maternal welfare commissions coördinating all agencies for educating profession and laity, and for supervision of hospitals.
4. Open courtesy staff of the approved hospitals to the general practitioner.
5. Birth control clinic to be an integral part of every obstetric and gynecologic service under the guidance and leadership of the profession.

It seems appropriate at this annual meeting of The Medical Society of the State of Pennsylvania that we should recall the fact that it was my old friend, Dr. John Montgomery Baldy,

who conceived the idea that medical practice in your State should be elevated to a higher standard. In 1914 this valiant fighter journeyed to Harrisburg and, single-handed, persuaded the Legislature to pass a law requiring one year's internship in an approved hospital. Your State has the honor of being the first to enact such legislation, and since then 17 others have followed your splendid example. May I also call to your attention the resolution sponsored by Dr. Philip F. Williams, chairman of the Commission on Maternal Welfare of the Philadelphia County Medical Society and presented to the House of Delegates of this Society. This resolution calls for the appointment of a Commission on Maternal Welfare in The Medical Society of the State of Pennsylvania for the purpose of establishing in each component county medical society a local committee on maternal welfare to study the problems of maternal mortality and fetal deaths in that particular community. This resolution certainly warrants endorsement.

I am optimistic in regard to the reduction of maternal mortality. Forces have been started which will not be stopped, and it is the duty of the physician to direct these forces. We have a definite program, and it behooves us all to carry on.

59 East Fifty-fourth Street.

PSORIASIS*

PARK A. DECKARD, M.D., HARRISBURG, PA.

Psoriasis is a common chronic inflammatory disease of the skin characterized by the occurrence of rounded circumscribed patches with dry silvery scales on an erythematous base.

The elementary lesions are small reddish papules with slight elevation and whitish scales, which are very adherent. These lesions enlarge slowly with the formation of sharply circumscribed scaly patches, the larger ones resulting from the growth of the individual lesions and not from the coalescence of the original papules.

Pusey says, "Psoriasis is a disease which presents only one type of lesion, that which has an inflammatory base and a scaling surface, never becoming vesicular or pustular, and never, except from secondary changes, showing moisture." But many dermatologists are now de-

scribing a pustular variety of psoriasis, and this question is debatable.

The patches of psoriasis after reaching a certain size are very likely to remain stationary, but considerable variety may be seen in the general appearance of the eruption. To these lesions many descriptive terms have been applied. The largest lesions, caused by the coalescence of adjacent patches, form a plaque that sometimes almost covers the lower part of the back or the lumbar spine.

Psoriasis is practically always chronic in its course. The lesions appear, perhaps continuing for several weeks or months with varying degrees of intensity, then disappear entirely. After disappearance there may be a relapse at any time. Sooner or later recurrence is the rule, the interval between attacks seldom if ever being more than a year and sometimes only a few weeks. Occasionally the disease appears rapidly

* Read before the Section on Dermatology of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 3, 1934.

with a generalized eruption, acute in nature, which soon assumes the subacute type, then becomes chronic and pursues the regular course. A complication which might become serious is the development of epitheliomata in an old patch of psoriasis. I have noted 2 such cases during the past year. Both of these patients had had rather extensive treatment with arsenic, and the growth was attributed to this cause. The epithelioma in each case was removed without further trouble and no recurrence has taken place.

The subjective symptoms of psoriasis are very few. If the skin is extensively involved, there may be a feeling of marked tension with a slight degree of itching. If there are large areas of infiltration, painful fissures sometimes develop. The cause of the disease is obscure and practically unknown, although many theories have been advanced. Heredity is supposed to be a factor in a good many cases. It is not uncommon to find it in parent and child or in collateral members of a family. I recall the presence of psoriasis in 3 generations of the same family.

As to the influence of the general health as a cause of psoriasis a difference of opinion exists among dermatologists, although a lowered vitality certainly does intensify the condition in individuals who have already suffered from previous attacks.

In briefly reviewing the various theories as to the etiology of psoriasis, Burgess refers especially to the work of Bizzozero on the phenomenon of Koebner, namely, that during a certain period of the evolution of psoriasis typical linear psoriasis may be evoked as a result of cutaneous excoriations. Bizzozero determined that the traumatic stimulus acts directly on the papillary layer and that a certain incubation period is present before the development of psoriasis, a period which varies for different individuals. This suggests that in psoriatic patients some biochemical substance is formed which comes into contact with the basal cells of the epidermis through the blood or lymph streams and by its action interferes with the normal evolution of epidermal cells. A person never acquires permanent immunity to this reaction; there are recurrences of the disease probably due to the influence of associated conditions such as metabolic disturbances, constitutional dyscrasias (gout, anemia, and arthritis), and perhaps endocrine disturbances.

Sentiment in this country at the present time seems to favor the parasitic theory as the cause of this disease, although many still cling to the idea that it is due to some dietetic abnormality.

Diagnosis may be difficult because psoriasis

must be differentiated from a number of conditions, most important of which are pityriasis rosea, seborrheic dermatitis, lichen planus, lupus erythematosus, eczema, and the psoriasiform syphilide.

In pityriasis rosea the duration of the disease is a matter of only a few weeks, the eruption being located on the trunk, thighs, and upper portion of the arms. The patches are fawn colored and oval, with a crinkling of the epidermis and an almost imperceptible scaling. The onset, with the herald patch and a tendency of the lesions following to arrange themselves so that their longitudinal diameters are parallel with the ribs, usually clinches the diagnosis.

In psoriasis the distribution is on the extensor surfaces, the elbows, the knees, and the scalp. In seborrheic dermatitis it is on the ears, eyebrows, nose and face, the sternal region, and the flexures as well as the scalp. The scales in psoriasis are dry, white, shiny, and smooth. In seborrheic dermatitis they are dull and greasy. If the scales are removed in psoriasis there is a bleeding surface whereas no such thing occurs in seborrheic dermatitis.

Lichen planus is chiefly on the flexor surfaces of the forearms and wrists, the ankles, and the shins, the patches being thickened and pruritic, violaceous or a dirty brown in color.

In lupus erythematosus the lesions are usually on the scalp and face in the form of discrete plaques, the scales of a grayish color being very adherent. Upon removal of the scale the under surface is papillomatous due to the extending follicular plugs.

In eczema there is usually more or less itching. The distribution as a rule is not on the extensor surfaces of the elbows or knees. There is an exudation with slight scaling.

The psoriasiform syphilide is found most often on the palms and soles where psoriasis is rare. The lesions are dark red or copper colored and arranged as a general rule in a configurate manner. The scale is brownish red and sparse. A positive Wassermann, often mucous patches, condylomas, and a general adenopathy with late secondary syphilis serve to differentiate the 2 conditions.

Treatment of psoriasis is palliative, the multiplicity of remedies being evidence of their inefficiency. In a few instances, however, the disease shows no evidence of recurrence and is apparently cured. In persons affected with psoriasis there are some measures which are generally accepted as being beneficial. Remove the scales of the lesions with hot baths using strong soap, thus giving the local application a

better chance to act. Correct all derangements of health, particularly nervousness and rheumatism, and regulate the diet so as not to include foodstuffs which are irritating to the skin.

In acute eruptions which are spreading rapidly, soothing applications should be used: olive oil, calamine liniment, cold cream, or a 1 to 5 per cent ammoniated mercury ointment. As the acute stage subsides, stronger applications should be used, but with caution. For chronic patches use chrysarobin (1 to 10 per cent), salicylic acid (10 to 30 per cent), ammoniated mercury (10 to 50 per cent) in ointment form.

The roentgen ray has been used in the treatment of chronic recurrent lesions, but this is fraught with the danger of injury to normal tissue because of the cumulative effects. It is very often a dangerous procedure on account of the radiodermatitis which later develops, but the benefit derived by many of these patients makes roentgen therapy very popular.

Quite a few dermatologists have been experimenting with injections of the extract of psoriatic scales, but the results reported do not seem very encouraging as they are no better than those which are achieved by nonspecific injections in psoriasis.

The improvement shown by some psoriatics under ultraviolet light therapy has been remarkable although in others it has been almost a complete failure. I have used ultraviolet therapy for 10 years and consider it the best treatment for many of these cases if used in conjunction with arsenic, bismuth, or potassium iodide.

Goeckerman has become very enthusiastic in the treatment of psoriasis with ultraviolet radiation, his method being to apply an ointment containing 1 to 5 per cent crude coal tar about one-eighth inch thick to the various patches. This remains over night; then the excess of ointment is removed with olive oil and the light applied, the object being to produce a gradual tanning of the skin. Mild conditions disappear in 2 to 3 weeks and severe ones in 3 to 4 weeks. Although this method is not to be considered a cure in the strict sense of the word, it can be recommended as effecting a temporary disappearance of the lesions. Moreover, it gives the patient afflicted with psoriasis as much as we can offer him until the etiology of the disease is better understood, and until something better is recommended ultraviolet radiation is the method of choice in the treatment of psoriasis.

814 North Second Street.

ABSTRACT OF DISCUSSION

FRANK C. KNOWLES (Philadelphia): The progress of psoriasis is discouraging. This is the most persistent

disease that we are called on to treat, and the one in which we have the least brilliant results. We can promise that the eruption can be eradicated, but for what length of time, we do not know. It may be a few days, or it may be weeks, months, or years.

It is interesting to see what effect light has on psoriatic lesions. The full-fledged Negro does not have psoriasis; therefore, an attempt is made to darken the skin of the individual psoriatic. It is not that the darkening process has any particular effect, but the treatments which are most effective have a darkening influence; namely, the ultraviolet light and sunlight. In darkening the skin, do we not tend to liken the skin of psoriatics to the appearance of the negro skin? What may this mean? What may this deduction bring forth? Is psoriasis a sun hunger or is it opposed to pellagra, which cannot stand light or sunlight? In that disease the individual is undernourished. Are most psoriatics overnourished and therefore is it a combination of overnourishment and sun hunger?

The eruption of psoriasis develops into a curious state in certain cases. In the majority of cases it is eradicated rather readily. In certain other cases the eruption becomes fixed, nothing seems to move it; then suddenly there is some change in the individual that seems to do away with the fixed condition and the eruption readily disappears.

After the disappearance of the eruption in psoriasis, there is often a relapse. The treatment normally used for the eradication has no influence, and it is necessary to employ an entirely different line of treatment, both external and internal.

If our psoriatics could be let loose in a nudist colony, it would be interesting to observe the result.

HOWARD FOX (New York): I feel chagrined that I cannot tell my students much more about psoriasis than my father told his students a generation ago. We now have one advantage in methods of treatment, including the roentgen rays and ultraviolet lamps. Former generations, however, had the benefit of sunlight, which in my opinion is the most valuable agent for treatment provided the patient is able to acquire a tan. Although brunettes as a rule become tanned most easily, some brunettes do not tan well; on the other hand, some blue-eyed, fair-skinned individuals seem able to acquire a good tan in summer. I advise many of my patients with psoriasis to spend the summer months at the seashore.

BERNHARD A. GOLDMAN (Pittsburgh): Have any of the members had any experience with the use of cold quartz in the treatment of psoriasis?

PATRICIA DRANT (Philadelphia): I have used cold quartz in the treatment of psoriasis with benefit, particularly in cases in which the applicator was used in contact making pressure upon the lesions. The grid for generalized treatment is recommended. In the physiotherapy department of the Jefferson Hospital of Philadelphia, they have treated a small series of cases of psoriasis in their hyperpyrexator, a fever machine, and have had splendid results, giving patients about 10 treatments. In some cases the treatments were given at daily intervals and in others they were limited to once or twice a week. Several of these patients have had no recurrence over a period of 3 years.

LESTER HOLLANDER (Pittsburgh): My experience with cold quartz is that it is not cold quartz or any of the other things that gets the patients well. Dr. Fox brought out the importance of pigmentation. The skin will pigment whether you use a good strong ultra-

violet light or a cold quartz lamp, provided it is that kind of skin. Whether you use one method or the other method makes very little difference. No one should pay \$480 for a cold quartz lamp if he has an ultraviolet lamp.

I was interested in the report of Doctor Rieva Rosh of New York who told of the use of 800 r of deep roentgen-ray therapy over the spine, giving the treatment to the sympathetic nervous system. He reported in the *Journal of Radiology* about 3 or 4 months ago 6 patients

with long-standing psoriasis who had all sorts of treatment, and this gave excellent results. I wrote Dr. Rosh about a few very resistant cases, and I wonder if Dr. Fox could give us any information on the subject since Dr. Rosh's work was done at the Bellevue Hospital of New York.

HOWARD FOX (New York): I have not had any experience with that. I have had with lichen planus and 1 or 2 other diseases, but I am not familiar with that treatment in psoriasis.

THE TREATMENT OF HEMORRHOIDS*

A Comparison of the Operative and the Nonoperative Methods

MARTIN S. KLECKNER, M.D., ALLENTOWN, PA.

From Biblical times down to the present, hemorrhoids have commanded an important position among the ailments of the civilized races. First known as "emrods," the terms hemorrhoids (derived from the Greek, *aima*—blood, and *roie*—to flow) and piles (from the Latin *pila*—a ball or swelling) have been used interchangeably. Although the latter term more appropriately defines the exact condition and is the common expression for rectal trouble by the laity, it seems a rather crude and vulgar expression for adoption by the medical profession; hence, in this paper, the word hemorrhoids will be used.

Dating back 65 years the treatment of hemorrhoids was subjected to a new type of cure when Morgan of Dublin introduced the injection method, followed 2 years later by a long string of charlatans in this country headed by Mitchell, of Clinton, Illinois. When promoters recognized the financial return to be obtained by guaranteeing to end all suffering from this disease, the so-called secret methods or no knife treatments made their advent with the use of strong solutions of phenol. Although some cures were undeniably accomplished, a trail of disastrous results followed; but the nonoperative method had left its impress on the laity, to be successfully commercialized for years afterward by the itinerant pile doctor who gradually went further until he promised to cure all rectal diseases by ambulatory methods.

To the laity most rectal disorders are due to hemorrhoids, and they commonly tell us it is the bleeding, itching, or protruding type that bothers them. Unfortunately, both laity and the general practitioner regard these conditions in rather light vein because frequently an examination is not made and the bullet type suppository or

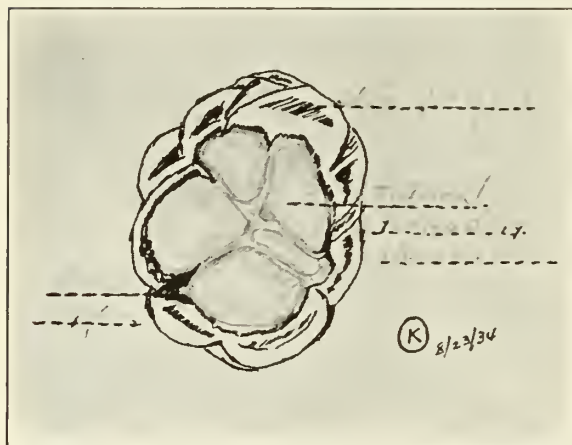
the pile-pipe salve container is recommended. The novice in proctologic work may regard the treatment of hemorrhoids as a very simple matter; but if he fails to recognize the importance of a thorough knowledge of the anatomic groundwork, the results invariably must be most damaging to both patient and himself. A proper conception of the embryology and anatomy of the anorectum is necessary.

The embryologic divisions of the human vertebrate digestive tract are the foregut, the midgut, the hindgut, the proctodeum, and the postanal gut. In 2 per cent of the cases the remains of the midgut, if not obliterated, appear as Meckel's diverticulum. The postanal gut may manifest its vestigial presence in the pilonidal sinus or the sacral dermoids. With normal development the hind gut (which becomes the rectum) joins the proctodeum (corresponding to the anus), and with the absorption of the intervening membrane or anal plate the point of union or junction of these two localizes what is known as the pectinate line with its crypts and papillae—the origin of probably 85 per cent of all rectal disease.

This dentate border, situated about an inch from the anal orifice, marks the anatomic dead-line where important circulatory, lymphatic, and neurologic changes predominate. Below this anorectal junction, venous and lymphatic drainage is by way of the inferior vena cava and the inguinal nodes, whereas above it, their respective courses lead into the portal system and the lumbar nodes. This cryptic catch-basin marks the boundary where skin (squamous epithelium) meets mucous membrane (columnar epithelium) with acute sensitiveness due to cerebrospinal innervation distal, and insensitiveness resulting from sympathetic distribution proximal to this proctologic plane. Internal hemorrhoids may be recognized by their covering of rectal mucosa in

* Read before the Section on Surgery of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 2, 1934.

contradistinction to those venous dilatations found below the pectinate line but covered by squamous epithelium and known as external hemorrhoids. Even though the internal hemorrhoids protrude through the anal orifice, replacement will return them above the line of the crypts and papillae.



Hemorrhoids may be classified into 3 types: (1) Internal; (2) external; and, (3) combined external-internal. Internal hemorrhoids are bloody tumors consisting of dilated blood vessels (mostly venous) lying in a connective tissue stroma. They are varicose tributaries derived principally from the superior hemorrhoid vessels. The superior hemorrhoidal artery, after dividing into right and left, eventually terminates in 7 (occasionally 8) branches, the venous contiguity of which is the potential origin of internal hemorrhoids. Because of this fairly constant distribution these varicosities are found in a definite location, but the development and appearance of these hemorrhoids is dependent upon existing pathologic change so that but 3 or 4 groups of the internal variety are found at one time.

The external type, frequently known as anal hemorrhoids, is the result of pathologic invasion of the circumanal plexus of veins. Covered by skin they may be seen as soft bluish swellings, thrombi, or skin tags located in the distal portion of the anal canal.

A combination of both external and internal types is present more often than we have been led to believe. An anastomosis between the middle and superior hemorrhoidal vessels is always present; furthermore, failure to elicit properly the presence of one or the other group during examination has resulted in a limited classification. The combined external-internal type is found present in greater portion than either type alone,

whereas the internal variety is far more common than the external type.

Hemorrhoids are usually caused by bacterial infection at the pectinate line, where inflammation, principally of the crypts, progressively lowers tissue resistance, and dilatation and thrombosis follow. Embryologic faults and any obstruction to the return flow of blood, as in pregnancy or hepatic cirrhosis, will facilitate this bacterial invasion. It is erroneous to believe that constipation, sedentary habits, and improper hygiene are primary causes of hemorrhoids, but they certainly help aggravate any existing hemorrhoidal disease.

Hemorrhoids occur most commonly between the third and sixth decades, and are present in both sexes in about even proportion.

Symptomatology varies according to the hemorrhoidal areas involved, with pain predominating in the external type and bleeding in the internal variety. The degree of infection and thrombosis present will produce corresponding variations in bleeding, pain, protrusion, itching, and discharge, one or all of which the sufferer may have.

Internal hemorrhoids in the vast majority of cases are characterized by bleeding which may be periodic or constant, variable in amount, usually painless and of a bright red color, and occurring most frequently during a bowel movement. The patient often first notes the blood on the cleansing material used. Protrusion follows in a more advanced stage with reduction occurring itself, but later manual replacement is required or the sufferer is compelled to lie down to keep them in place. Pain ensues in the presence of ulceration but usually occurs late in internal hemorrhoids whereas a small thrombotic external hemorrhoid may produce an unusual amount of pain for several days after its onset. Itching and discharge are invariably late symptoms in advanced hemorrhoids. In the earliest stages symptoms may be vague or absent in external hemorrhoids although in the internal hemorrhoids a latent sign of uneasiness and a feeling of weight may precede more definite symptomatology.

Successful treatment can follow only careful diagnostic study of each case. A thorough history and physical and proctologic examinations are vitally important. The error of accepting the patient's own diagnosis is as ridiculous as the failure of the physician to insist firmly upon a proctologic examination, a mistake which may be followed by disastrous results. The only armamentarium necessary is a table, a good light, and a speculum. The physician's ability to in-

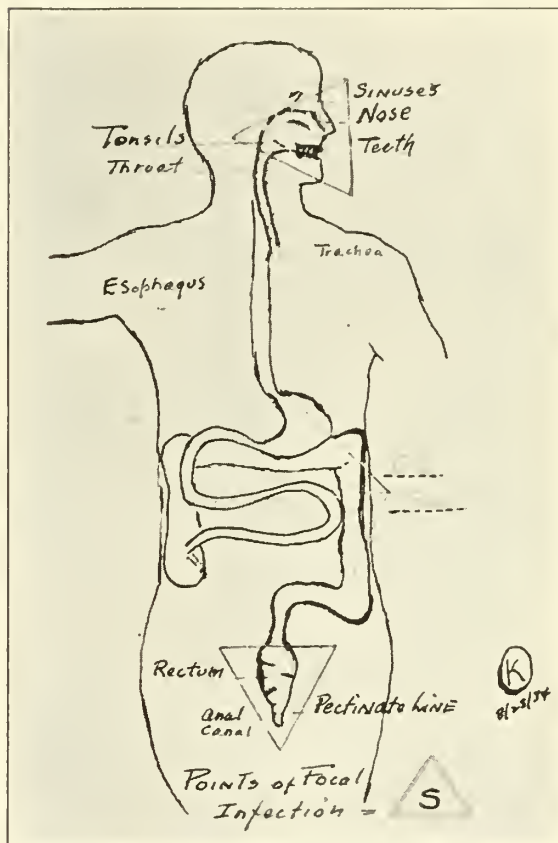
interpret his findings will be greatly enhanced by his anatomic knowledge of this region and the use of the gloved finger. Failure to make a satisfactory diagnosis can be rectified easily by calling in a proctologist as consultant, an advantage which only the ethical practitioner possesses. Such action invariably increases the prestige of the general practitioner among his clientele rather than being detrimental to his reputation. Inspection and palpation, with the buttocks gently separated, will usually reveal the presence of any external hemorrhoidal lesion, be it the soft bluish and easily compressible veins frequently seen in children, the thrombotic mass from buck-shot to lime size (severely painful in the acute stage and only abating when tension is relieved), or skin tags, the remnants of former disease.

Instrumental examination is necessary for the correct diagnosis of any lesion above the anorectal or pectinate line. Although internal hemorrhoids are found within the area of 4 cm. above this junction, the proctoscope and the sigmoidoscope with their direct illumination should be used to eliminate the presence of any disease, particularly malignancy, within 8 to 10 inches of the anal orifice before localizing the disease. Here the naked eye alone can determine the true picture. Roentgen ray should be used only if scoping is impossible or if the upper limits have been reached. The real importance of this procedure should not only impress us, but compel deep scoping if we recall the frequency with which carcinoma of the rectum is now occurring in individuals in their early thirties. Rectal cancer invariably shows the presence of hemorrhoids below the growth, and I have found it a distressingly common incident that the majority of these malignancies have been plugged with suppositories (particularly that well advertised silver foiled cartridge with its shotgun combination, the percentages of which the general practitioner knows nothing and probably cares less), anointed with salves, injected, or operated upon. What a sad state of affairs and what a reflection on the diagnostic ability of the physician! If you were the patient, would you be satisfied with treatment such as this?

Proctologic survey shows that such lesions as anal ulcer (or fissure), cryptitis, papillitis, pruritus, proctitis, colitis, abscesses, tumor, and diseases of the neighboring viscera are frequently confused with and treated as hemorrhoids. The only real condition which might be confounded with external hemorrhoids is condyloma acuminatum or the perianal wart, which often becomes fissured and ulcerated. Carcinoma, polypi, and prolapse may be confused with internal hemorrhoids because bleeding is common in each.

Polyps and prolapse are very common in children whereas hemorrhoids are rather infrequent.

If internal hemorrhoids protrude and swell, return is prevented by the sphincter muscles, and incarceration or strangulation may result.



Acute hemorrhoidal disease (with the possible exception of the external thrombotic variety) should be treated palliatively with:

1. Absolute rest in bed and limited diet.
2. Application of extremes of temperature depending on which is more comfortable to the patient; *i. e.*, ice or hot fomentations, the latter consisting of compresses of saturated solution of Epsom salts for stated intervals. Sitting in a tub of hot water or a hot sitz bath for short periods is always comforting.
3. Sedatives.
4. Mineral oil by mouth.
5. If necessary, an enema through a catheter (20A) of glycerine, ounces 2, oleum olivae, ounces 6, and aqua q. s. ad. 1 pint.

With the complete subsidence of the acute symptoms, the hemorrhoids are treated as a chronic type. Frequently an acute external thrombotic hemorrhoid may be excised under local anesthesia, but the wound should be left

open and precautions taken lest serious hemorrhage follow. The removal of external hemorrhoids requires surgical intervention and the use of an anesthetic; but the internal hemorrhoids of the chronic type have been treated successfully by ambulatory methods in which injections and electricity are used, or by operation.

Ambulatory methods, if properly used by one having at least average ability and experience, permit the sufferer to take treatments in the office without loss of time, with little if any pain, and with a minimum expense. Surgery entails hospitalization, considerable expense, and probably more pain in the convalescent period. Unfortunately the ambulatory methods have their limitations whereas surgery can be used *ad libitum*.

Internal hemorrhoids are usually present in 1 of 3 stages—early, middle, or late:

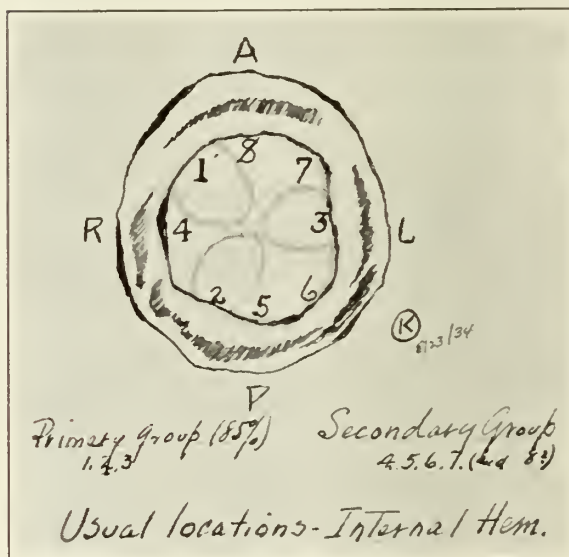
1. *Early stage*, with *much bleeding* and *little or no protrusion*. In this stage the use of ambulatory methods, particularly injections, will almost always immediately stop the hemorrhage, and if treatment is continued as directed (8 to 12 treatments are usually necessary), cure may be obtained in 90 per cent of the cases.

2. *Middle stage* with *little bleeding* but *considerable protrusion* which, however, reduces itself. Here the tissues have undergone some fibrous change, and the use of ambulatory treatment in this stage will produce a cure in only 40 per cent of cases. The patient should be plainly told the chance of obtaining cure in this advanced stage and should be permitted to select the method for cure. This shifts the main responsibility on the patient, assuming that full explanation of the care and best possible treatment (whether injection or electricity) has been given.

3. *Late stage*, with *no bleeding* but *much protrusion* which always requires rest and manual aid for reduction. In this final aggravated stage fibrotic change is very marked and there is associated a beginning laxness of the adjacent anal tissue so that injection or electric treatment promises little, if any, cure and surgery must be resorted to for a satisfactory result.

Just as injections have played a prominent part in the treatment of simple internal uncomplicated hemorrhoids, so has electricity in its various phases been used by the medical profession. First introduced by the French and Italian physicians over 40 years ago and later tried in this country, it has been used with varying success. Galvanism, ionization, desiccation and coagulation are the chief methods used to destroy

the hemorrhoidal tissue. Electrocoagulation and electrodesiccation have given the best results and, if administered by their exponents of considerable experience, 100 per cent cure is claimed. A single treatment per hemorrhoid is necessary, and the coagulating effect is the guide; but it is impossible to tell how deeply these tissues are destroyed, thus limiting the accuracy of this method. More or less edema, pain, and inflammatory reaction follow its use, and extensive sloughing may occur. Although not a user or an advocate of electricity in the treatment of hemorrhoids, this method is safe in experienced hands. It requires expensive equipment and thorough training to accomplish in a roundabout way what can be done more easily, more quickly, and equally as well by such certain methods as injection and operation.



In treatment by injection the most popular solutions used are 5 to 10 per cent quinine and urea hydrochloride, and phenol in solution varying in strength from 5 to 20 per cent. Treatment by injection is a very valuable and effective method, but it has been subjected to much abuse by the over-enthusiasm of its users, who oft-times have not had sufficient experience or who forget that real good can be accomplished only if injection is used properly in selected cases of simple internal, uncomplicated hemorrhoids. In such a condition the injection method should be the one of choice, although I cannot champion the 100 per cent cures which some of my colleagues in proctology claim.

With the addition of any complication to the pure undefiled or first stage type of internal hemorrhoid, the use of surgical procedures such as the clamp and cautery, ligature, *etc.*, becomes

the method of choice. Frequently, considerable hemorrhage occurs in cases of advanced internal hemorrhoids or combined external-internal hemorrhoids. If operation is forbidden, objected to by the patient, or contraindicated because of some physical condition, the use of injections is necessary to stop the loss of blood. Although the relief afforded by injection is only temporary, these patients frequently become so elated and satisfied that they either discontinue these treatments or defiantly insist on no other procedure. In the aged, diabetics, and anemics, and during pregnancy it has proven most helpful. Some patients show an idiosyncrasy to certain drugs such as quinine, and unless this is known through questioning the patient beforehand, the alarming reaction may prove extremely annoying. Recurrences occur in all cases of hemorrhoids no matter whether injection, electricity, or operation has been the *modus operandi*. Covering a 10-year period, case review shows recurrence following surgery is practically negligible in experienced proctologic hands, but this cannot be said about the general surgeon who usually cuts but rarely scopes before operating. A 15 to 25 per cent recurrence is the rule in treatment by injections whereas electrical methods show about half this amount.

The sufferer of hemorrhoids should present himself for study and diagnosis, and then the method of treatment can be advised. Very often temporary substitute methods must be used to satisfy and convince the patient of the fallacy of the injection treatment. Absolute insistence upon operation (if it alone will procure the satisfactory result) should sometimes be preceded by palliative persuasive ambulatory treatments for psychologic effect and to prove to the patient the necessity of more radical treatment. The after-pain in hemorrhoidectomy can be markedly lessened by careful surgery and posterior incision of the external sphincter muscle. Furthermore, if greater attention were given to the preoperative and postoperative care of these patients, there would not be such reluctance to undergo operation for cure, which is only complete when the wounds are entirely healed.

The ethical proctologist is ever striving to ameliorate the sufferings of these patients. His knowledge of treatment has always included the nonoperative methods bally-hoed for years by the advertising pile quack, but he has chosen to give his patients that method of treatment which will be most effective and curative in each individual case. With no flourish of newspaper colorature or guaranty of cure, he has continued his scientific interest and research and has not traveled from place to place or retired after a

few years to let his successor hear the complaints of the backwash of dissatisfied customers who placed their confidence in an ad and a promise. He has continued and is now bringing back to ethical proctology and to the profession that which was taken from them and put into disrepute by untrained, fallacious, and selfish charlatans.

CONCLUSIONS

1. Every sufferer with rectal disease should have a careful and complete study including a proctosigmoidoscopic examination, if possible, to localize the trouble.

2. Interpretation of pathologic change can be determined only by one who has a knowledge of the anatomy and physiology of the anorectal region.

3. Inability to diagnose rectal disease is easily remedied, without jeopardizing the physician's own standing, by calling in a competent proctologist.

4. Hemorrhoids may be treated by palliative, ambulatory, or operative methods, the selection depending upon the conditions present.

5. Simple internal uncomplicated hemorrhoids are treated safely, easily, and practically painlessly by injection treatments, with cure in at least 90 per cent of the cases.

6. The greater the complication of internal hemorrhoids the less chance there is for cure by injection methods.

7. Electricity alone by desiccation and coagulation will secure results similar to injection but requires an experienced operator.

8. Satisfactory operation with good after-treatment shows practically no recurrence for any hemorrhoidal condition, whereas all other methods have an 8 to 25 per cent recurrence following the so-called ten-year cure.

9. Primary infection in another part of the body such as the mouth and sinuses may be the etiologic factor in anorectal disease and should be given immediate attention.

10. Ambulatory methods may be used when refusal by the patient or contraindications for operative intervention present themselves, but the proctologist should advise the patient of the probable results.

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ABSTRACT OF DISCUSSION

FRANK G. RUNYEON (Reading): Patients complaining of hemorrhoids or other anorectal diseases are sick people, people who have discomfort and distress that takes something from them. A patient in this condition, whether the disease is at the anorectal region or in some

other part of the body, deserves careful consideration. There should be an effort on the part of the physician to make a careful examination and diagnosis and not to begin immediately inadequate or insufficient treatment. A salve or a suppository is frequently prescribed for patients complaining of rectal disease because it is inconvenient to make a rectal examination, or because the physician dislikes to do so. These patients are deserving

of the same careful investigation as are patients who have any other condition that needs medical attention.

It is fairly simple to make a diagnosis. It is unnecessary to emphasize these points to this group of physicians, but nevertheless there is a definite need for insistence that anorectal patients should have the same recognition, examination, diagnosis, and treatment which are given to the rest of our patients.

ARTHRITIS OF THE SPINE*†

SYDNEY J. HAWLEY, M.D., DANVILLE, PA.

The significance of lipping and bony bridging on the bodies of the vertebrae is not adequately stated in the current literature or in the textbooks. Having been called upon frequently to indicate the meaning of these changes, especially in connection with compensation suits, I am now reporting an attempt to correlate the histories and the roentgen-ray findings in the spines of 943 patients. So many varying factors enter into the correlation that this is necessarily an incomplete report. To determine definitely their significance, it will be necessary to study a large number of individuals from youth to old age, and also to study certain individuals for several years after trauma to the spine.

The changes referred to are commonly called arthritis of the spine, sometimes spondylitis, or hypertrophic osteo-arthritis, sharing in the general confusion of the nomenclature of the classification of arthritis. The appearance on the roentgenogram varies from a slight sharpening of the edges of the bodies of the vertebrae, with small bony spurs projecting outward and upward or downward toward the next vertebral body, to the formation of solid bony bridges between the bodies of 2 or more vertebrae. As will be shown later, these changes seen on the bodies of the vertebrae are not generally of any particular significance as far as the patients' symptoms go unless they are very far advanced. Furthermore, they do not represent inflammatory changes in a true joint, and therefore the term arthritis should not be used. For want of a better term, spondylitis will be used in this paper as referring to the changes seen on the bodies of the vertebrae, and arthritis as referring to changes in the joints which are found between the articular processes.

It is not feasible to classify the kind or amount of spondylitis with any degree of accuracy, as

the amount of change varies so slightly in different patients, and furthermore in the same patient there may be advanced changes in one portion of the spine and little or none in some other part of the vertebral column. After careful attempts to relate the degree of change with backache, or other forms of spinal disability, there was found no relation between symptoms and roentgen-ray findings. Advanced changes are seen frequently in patients who have no history of pain, disability, or injury. However, if the spondylitis is very severe and associated with scoliosis, considerable pain and disability may be present. Every physician is only too familiar with the patient who has great pain in the back with considerable limitation of motion and whose roentgen-ray examination is normal.

Frequently these patients are suffering from a true arthritis of the spine, that is, an inflammation of the joints between the articular facets. This is an area which is very difficult to visualize well by roentgenography. In normal young adults these articulations are readily seen and are clear cut in outline in a carefully taken roentgenogram. Early changes in these joints may be impossible to detect, but the more advanced changes are similar to those of arthritis elsewhere.

Statistics of arthritic changes at the articular facets will not be quoted. Many of the films reviewed were old and were not taken with the aim of showing these facets; consequently, no statistics of value are to be obtained. In many cases definite evidence of changes in these joints was found, such as general hazing, lessening of the joint space, and increased density of the articular surface in patients who suffer from persistent backache and who commonly receive some diagnosis such as myositis.

This series of 943 patients was approximately evenly divided between the sexes, there being 486 men and 457 women. Forty-five per cent of the men showed evidence of spondylitis and 22 per cent of the women. This difference is sufficiently pronounced to suggest that there is

* Read before the Section on Medicine of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 4, 1934.

† From the Department of Roentgenology, G. F. Geisinger Memorial Hospital, Danville, Pa.

some cause operating in the males that tends to produce these changes. This factor may be that of repeated trauma as generally men pursue occupations that require greater physical effort than do women.

The relation of the occurrence of spondylitic changes to age is especially interesting. Eleven per cent of the women under age 50 showed them, and 48 per cent of the women over age 50. Twenty-four per cent of the men under age 50 showed these changes and 70 per cent of the men over age 50. These figures show quite definitely that the incidence of spondylitis increases definitely with age. In the absence of other causative factors this would be interpreted as being evidence that the changes were those of advancing age, similar to arteriosclerosis, lower metabolism, *etc.* This would seem to be the case in the females. However, the greater increase seen in the males would indicate that some other factor also enters in this sex.

The weight of the individual seems to have some bearing. Whether this is due to some constitutional predisposition, or due to the fact that the heavier individual throws more work on his spine, it is now impossible to state. Twelve per cent of the women weighing under 150 pounds showed evidence of spondylitis, and 34 per cent of those weighing over 150 pounds. The difference is not so pronounced in the men, with 39 per cent of those weighing under 150 pounds showing changes and 49 per cent of those weighing over 150 pounds. These figures tend to show that weight is not of as much significance in forming these changes as is sex and occupation, though it is possibly a minor factor.

Changes associated with occupation are interesting. The women were all classed as sedentary. Forty per cent of the men in sedentary occupations showed spondylitis, and 55 per cent of those indulging in hard labor showed changes. It is interesting to note that 57 per cent of the miners showed spondylitic changes, not enough higher than the general percentage to be of significance. These figures, taken in consideration with those already given, tend to show that strenuous hard labor is certainly one factor, and is probably second in importance to age as a factor in the formation of spondylitis.

So far in speaking of trauma there has not been included severe single trauma, but only repeated strain such as is met in daily labor. One hundred eighteen of the men had a history of single severe trauma at some time, varying from 3 weeks to several years previously. But of these only 46 per cent showed spondylitis. As this percentage is practically the same as the general percentage for males, it would appear that a

single trauma is not an important factor. This statement must be qualified by saying that in the event that there is a fracture of the body of the vertebra, changes similar to those of spondylitis will appear at the site of the fracture, incidental to healing. These changes are not included in these percentages as spondylitis.

An accurate estimation of the relation of focal infection was not possible in sufficient of the cases to make the findings of any great significance. Thirty per cent of the women with focal infection had spondylitis, according to the findings at physical examination, and 70 per cent of the women with focal infection did not have spondylitis. Forty-three per cent of the men with focal infection had spondylitis and 57 per cent of those with focal infection had no evidence of spondylitis. By focal infection is meant obvious infection of the tonsils, teeth, or sinuses. Although the basis from which these figures are reached is somewhat vague, the great discrepancy seems to point quite definitely toward the conclusion that focal infection does not play a very important part in the development of spondylitis. There was also no relation between arthritis elsewhere and spondylitis.

One other fact appeared, namely, that patients who have spondylitis or arthritis of the spine are more susceptible to injury than normal people. A miner, for example, who has a moderate amount of spondylitis may have no backache or other disability traceable to his spondylitis. If such a person suffers an injury to his back, he will have more and longer continued disability following such injury than a normal person would.

Two very important pieces of information were not brought out in this review: (1) The age at which the spondylitic changes begin to occur, and the circumstances of the patient's health at the time of development; (2) the rate of development of the changes, and whether or not they are continuously progressive once they have started. I am proceeding with studies to determine these points, but it will take a great many patients and many years. It is hoped that others will follow through a series of such patients and report their results.

The types of spondylitis which appear under the names of Marie-Strümpell or Bechterew are not included, as these two conditions are apparently definite diseases and are not the end stages of an ordinary spondylitis.

CONCLUSIONS

1. The term arthritis of the spine should be confined to inflammatory processes of the articular surfaces between the articular facets.

2. Spondylitis should be used in referring to calcific deposits at the edges of the bodies of the vertebrae that are not secondary to fracture or other specific disease of the spine.

3. Spondylitis is not of great significance as a cause of pain or disability, though true arthritis of the spine is. Spondylitis may be the cause of backache and disability if it is very severe and scoliosis has resulted, or if injury is sustained in the presence of a preëxisting spondylitis.

4. The incidence of spondylitis increases with age.

5. Spondylitis is more common in persons who have engaged in hard labor over a period of years, such as farmers and miners.

6. Weight, single severe trauma, focal infection, and arthritis elsewhere have little or no relation to the development of spondylitis.

ABSTRACT OF DISCUSSION

BYRON JACKSON (Scranton): We are all so greatly interested in low back pain that it would be an excellent thing if some roentgenologist could tell us just what causes this condition. We have another difficulty today in that almost everyone who has had an accident is likely to get some compensation, and we cannot tell just how much pain they really have. Probably 50 per cent of the patients examined because of low back pain are those who have been injured and receive compensation. Physicians in the coal region probably see many more cases of this type than other physicians do, and have many cases of single severe trauma.

For a long time we have been thinking that age has something to do with spondylitis. Dr. Hawley spoke about men who are hard workers. I do not think that miners are hard workers, but I believe that farmers are. Posture in the work has something to do with spondylitis. Furthermore, very slight trauma sometimes does produce actual injury to the spine, and by repeated examination it should be determined. The usual anteroposterior roentgenograms are not sufficient. The articular surfaces should always be brought out. Men with so-called spondylo-arthritis can be greatly benefited by proper examination followed by correction of faulty posture.

THE DINITRO COMPOUNDS AND WEIGHT REDUCTION*†

EDWARD L. BORTZ, ANTHONY SINDONI, JR., AND ETHEL MAY HOBSON, PHILADELPHIA

Body weight reduction is a subject of importance to the medical profession in which the general public has displayed a lively interest. Moderate to advanced obesity is so common that physicians not infrequently overlook it, yet insurance companies look upon overweight as a liability to human longevity. Paring down the individual to his optimum weight is an obligation that the doctor owes his patient, and any method or drug capable of producing a loss of excess fat tissue in the body with a minimum of discomfort and danger to the individual patient is bound to be of interest to the profession.

A distinction may be made between "legitimate" and "illegitimate" reduction. Legitimate reduction is of great benefit to overweight individuals with organic disease of the heart, lungs, kidneys, liver, or blood; the intimate relationship between obesity and diabetes is too well known to merit discussion. Also, if patients with organic visceral disease are benefited by legitimate weight reduction, individuals with no particular complaint other than excess weight

should likewise be benefited. Illegitimate weight reduction, or the resorting to drastic measures for purely cosmetic reasons, is in general regarded with frank disfavor by the medical profession and the public alike.

The widespread interest in the field of metabolic acceleration has been stimulated in the United States by the brilliant researches of Cutting, Tainter, Mehrrens, and their associates in connection with dinitrophenol 2-4. These men, proceeding from the observations of the French investigators on the poisoning due to dinitrophenol during the World War, studied the pharmacologic action of the drug, and their researches promise a new and effective therapeutic agent of particular value when the indications and limitations as well as the dosage are finally determined.

THE DINITRO COMPOUNDS

Dinitrophenol is but one of a whole series of those interesting chemicals, the dinitro compounds, which is now undergoing investigation. The following table has been compiled from the findings of Heymans and his associates, using dinitrophenol as the unit of comparison.

* Read before the Section on Medicine of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 3, 1934.

† From the Metabolic Clinic of The Lankenau Hospital.

	<i>Relative Activity</i>	<i>Toxicity</i>	<i>Azoreaction</i>
Dinitroaminophenol ..	16.4		
Dinitronaphthol	99.3	++++	—
Dinitrophenol	100.0	++++	—
Dinitrothymol	178.2	+	—
Dinitrocresol	207.5	++	?
Dinitrohexylphenol ..	395.1		+
Dinitropentylphenol ..	455.5	+	++

Although dinitrophenol is both slightly more active and slightly more toxic, dinitrophenol and dinitronaphthol are considered approximately in the same category. Dinitrophenol, the most widely used of the compounds, is believed to be the most toxic. Dinitrocresol, dinitrothymol, and dinitropentylphenol are said to be more active with a much lower toxicity. Heymans found that dinitropentylphenol is the most active of the series and does not possess the general toxic properties evidenced by the others, especially dinitrophenol; therefore, the stimulating action of dinitropentylphenol on cellular metabolism must be not only the most intense but also the most specific.

Heymans and his coworkers believe that the intensity of action of the different preparations depends upon the rapidity with which aromatic amines are formed and that this is evidenced by the appearance of a positive azoreaction. The table above shows the relative activity of the different compounds.

A series of experiments with dinitropentylphenol conducted in the same laboratory indicated that acetaldehyde, one of the intermediary products of the reaction, diverts the cellular action of the drug and that the effect of fatal doses can be inhibited by the intravenous injection of sufficiently large doses of glutathione or acetaldehyde, either preventatively or curatively.

Earlier experiments had shown that the dinitro compounds cause a notable accumulation of lactic acid.

From the various findings the authors concluded that these chemicals have 2 different actions:

1. A direct accelerating action on the cellular ferments which takes place in an alkaline medium and is probably exercised through the sulfhydryl system.
2. A combustion of the intermediary products (particularly acetaldehyde and probably methylglyoxal), especially produced in an acid medium.

It is not unlikely that the above preparations are forerunners of compounds which will prove to be of great value in the hands of the medical profession when the problem of metabolic stimulation arises.

LIMITATION OF DIET AND THE USE OF SODIUM DINITROPHENOL

Sodium dinitrophenol as a metabolic stimulant is not being used in the Obesity Clinic of The Lankenau Hospital to replace diet for reducing body weight, but is proving to be a great asset as a means of encouraging the consistent adhering to a diet moderately low in calories over a long period of time. For example, patients requiring approximately 1800 calories of food daily, can lose 2.75 pounds of weight per week by following a 1200 calorie diet and taking 3 capsules of 100 milligrams each (1.5 grains) of dinitrophenol daily, although on the same diet without dinitrophenol only 0.5 to 1 pound is lost weekly. A patient wishing to lose 60 to 80 pounds of excess weight soon loses enthusiasm and becomes discouraged if progress is not more apparent.

Patients who have lost 20 to 30 pounds of weight by limiting their daily caloric intake to 1200 calories for a period of 1 or 2 years learn to satisfy their appetite and to be contented with the prescribed diet, but they soon lose interest when the customary treatment will no longer cause a loss in body weight. A more rigid restriction of foods would not be advisable as it frequently causes a lack of coöperation, and a break in the dietary régime will renew the patient's interest in food. By taking dinitrophenol and continuing their accustomed diets, patients are able to lose 10 to 15 pounds without becoming antagonistic toward diet therapy.

After being on a diet moderately limited in calories for 1 or 2 years, the plastic individual has established new food habits. He has learned to prefer large quantities of the crisp and watery 5 per cent vegetables such as string beans, cucumbers, cauliflower, asparagus, and tomatoes to the dry starchy 15 and 20 per cent vegetables such as peas, corn, lima beans, and potatoes. He has learned to enjoy fresh unsweetened fruits, and does not desire large amounts of concentrated foods such as bread, cereals, butter, candy, and ice cream.

Many of the prescribed diets that are low in calories and limited in the choice of foods, such as the skimmed milk and banana diet which is popular at the present time, or the well-known lamb chop and pineapple diet as used a few years ago, are so far removed from the normal meal that the patient cannot enjoy the family bill of fare nor learn to select foods in an intelligent manner. After the desired amount of weight has been lost, as it will be on these unbalanced diets, the patient will resume the faulty food habits through which he gained the unwanted

weight, for he has not had the opportunity to adjust himself to correct food habits which will enable him to maintain a normal body weight.

SPECIMEN DIET

1200 Calories

- Protein, 80 grams; fat, 40 grams, carbohydrate, 125 grams

BREAKFAST:

- 1 orange, $\frac{1}{2}$ grapefruit, $\frac{1}{2}$ cup strawberries or pineapple, $\frac{1}{2}$ cantaloupe, or $\frac{1}{4}$ average-size honeydew melon
- 1 egg
- 1 slice whole wheat or rye bread
- 1 level teaspoon of butter
- 1 cup coffee (with 1 tablespoon of cream; no sugar)

LUNCH:

- 1 cup clear broth
- $\frac{1}{2}$ cup cottage cheese, 3 ounces yellow store cheese, or lean meat
- 1 cup 5 per cent vegetables such as asparagus, spinach, string beans, Brussels sprouts, cabbage, cauliflower, or tomatoes
- lettuce as much as desired with 1 teaspoon of mayonnaise
- 1 slice whole wheat or rye bread
- 2 teaspoons of butter
- 1 glass skimmed milk or buttermilk
- 1 serving fruit same as breakfast

DINNER:

- $\frac{1}{4}$ lb. lean meat, liver, fish, or cheese, or 2 eggs
- 2 cups 5 per cent vegetables, or 1 cup 10 per cent vegetable such as beets, carrots, turnips, onions, or squash
- 1 heaping tablespoon 15 per cent or 20 per cent vegetable such as potatoes, corn, or lima beans
- 1 slice whole wheat or rye bread
- 2 teaspoons of butter
- 1 serving unsweetened fresh, stewed, or canned fruit

COMMENT

For the past 2 years clinical investigations have been carried on in the Metabolic Department of The Lankenau Hospital in an endeavor to determine the clinical value, indications, contraindications, and limits of safety of the dinitro compounds, and the basis of this paper is a study of their action in a group of 60 obese patients.

These individuals ranged in weight from 150 to 400 pounds and were under treatment for a period of time varying from 2 weeks to 10 months. Twelve of the series (20 per cent) were males and 48 (80 per cent) were females. The average weight loss while taking dinitrophenol was between 2 and 3 pounds per week, whereas on diet alone from 0.25 to 1 pound weekly was lost. The majority of the patients liked the treatment and were satisfied with the result obtained. The frequent untoward effects, however, were such that the value of dinitrophenol as a metabolic accelerant is limited.

Toxic Symptom

	Cases	Per Cent
Pruritus	12	20
Urticaria	18	30
Edema	4	7
Nausea and vomiting	7	12
Diarrhea	3	5
Jaundiced appearance	2	3
Elevation of blood pressure ...	1	2
Hyperpyrexia	4	7
Nervousness	4	7
Headache	4	7
Loss of taste	2	3
Numbness of extremities	2	3

The quantity of dinitrophenol necessary to produce loss of weight in patients who are on a generous unrestricted diet is so large in the majority of cases that the factor of safety is practically eliminated. For this reason it is wise to use the drug only as an adjunct to moderate limitation in diet. Comparing the weight loss on a measured restricted diet without dinitrophenol to a similar program using dinitrophenol, the interval of time required for reduction is cut approximately in half.

Various modifications in the method of administration have been tried but the accepted one is to give 1 capsule of 100 milligrams after the largest meal of the day for 1 week. If this is well tolerated, the dose may be raised to 2 capsules daily for a week and to 3 capsules daily in the third week, which schedule is to be followed for as long a period as is deemed wise. Although larger doses have been given, it is not recommended.

Patients may show symptoms of intoxication after a very few doses have been ingested, or they may appear tolerant to the drug for several weeks and then suddenly develop toxic symptoms. Patients who showed an optimum response therapeutically over a period of several weeks exhibited toxic symptoms in 3 cases when the dose was slightly increased.

Thus far no known method exists to determine the susceptibility to dinitrophenol except that of trial and error, that is, by the use of small doses of the drug. Our clinical impression is that patients with an allergic background more frequently exhibit symptoms of hypersensitivity than those with a negative allergic history. In several of the present series if symptoms of toxicity appeared, the drug was promptly withdrawn but after an interval of 10 days was again administered, beginning with 1 capsule daily. Larger doses were tolerated than before the toxic reaction, and weight loss was satisfactory.

The use of dinitrophenol in winter is complicated by the increased susceptibility of the subjects to respiratory infections while perspiring. In many cases the use of the drug during the

summer coincides with periods of hypersensitivity to foods, pollens, and dust, and the drug aggravates the symptoms. The use of this preparation, therefore, is more satisfactory in the spring and autumn. When symptoms of intoxication appear, the drug is promptly stopped, the diet is increased, and the patient is given alkalis.

Patients with the exogenous type of obesity respond much more readily to dinitrophenol than those with the endogenous or glandular type. The drug is a substitute for thyroid extract only in so far as augmentation in metabolism is produced. The symptoms of thyroid dysfunction due to sympathetic nervous system involvement, which respond to thyroid extract medication, are not influenced by dinitrophenol administration.

All of the patients in the present series experienced a sensation of warmth, and as dosage was increased the majority perspired profusely, but less so in the winter than in the summer. The drug produces a fever in practically all cases as the dosage is raised, but in none of this series was the febrile reaction over 102° F. and in most it never exceeded 100° F.

With small or moderate quantities of the drug the basal metabolism did not vary greatly, but as the dosage was increased the metabolic rate could be elevated as much as 50 per cent. Accidents and untoward effects are less liable to occur when the basal rate does not exceed plus 20.

With the chemical characteristics and physiologic reactions of the newer dinitro compounds better defined, the use of the drugs for clinical experimentation will naturally follow. The action of dinitrocresol has been studied in 1 patient in the present series of cases. The patient was on a measured diet and had previously taken dinitrophenol for a period of 5 months with no ill effect and with a loss of 90 pounds in weight. He was given 1 capsule daily (50 milligrams) of dinitrocresol in the form of dekrysil for 8 days. On the seventh day, however, the patient developed jaundice and complained of pain in the right upper quadrant of the abdomen. The icteric index was 12.6. It was necessary to discontinue the drug because of the apparent hepatic toxicity, but weight loss continued without medication. Further experiments will be reported later.

SUMMARY

Dinitrophenol is one of a number of dinitro compounds which give promise of therapeutic value in conditions requiring metabolic acceleration.

A series of 60 cases is reviewed in which dinitrophenol therapy was tried to produce loss of body weight. It is concluded that weight loss is

accelerated approximately 50 per cent by using dinitrophenol in addition to diet and that this drug is a boon in those cases in which patients become discouraged because of their inability to lose weight even on a strictly limited diet.

The unpredictable susceptibility of certain patients to the drug greatly limits its use. It should be taken only when the patient is under careful professional supervision. The public is vastly interested in any preparation that will reduce body weight and to a great extent disregards the dangerous possibilities of reduction by drugs. So widespread has been the sale of the dinitro compounds directly to the laity with no professional control that, according to newspaper accounts, the British manufacturers of dekrysil moved to have every bottle containing the drug labeled "dangerous." It is unfortunate that no laws exist in the United States which would compel manufacturers and dispensers of the dinitro compounds to label them in a similar manner.

The authors have written the secretary of the Pennsylvania Department of Health suggesting that the dispensing of the dinitro compounds be limited to the medical profession and that, wherever used, the containers be labeled "dangerous." The authors have also been in contact with Dr. W. G. Campbell, chief of the Food and Drug Administration of the Federal Government, urging that adequate measures be taken to protect the public from self-medication.

The best method of body weight reduction is limitation of the caloric intake, making certain that the basic requirements are met. The indiscriminate use of any drug for this purpose is to be condemned.

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ABSTRACT OF DISCUSSION

WALTER M. BORTZ (Greensburg): No system of age, height, and weight applies to every individual. Each case of obesity is a law unto itself and should be treated on its own merit.

Frequently, cases of obesity can be treated as simply as many of the mild cases of diabetes, that is, with a slight adjustment in diet. The omission of an egg, cream, pie, and cake may make the difference between obesity and healthy weight. Emphasis upon diet alone is faulty; it must be supplemented with advice concerning judicious exercise.

The habit of overeating plays a big part in many cases of obesity. The physical and mental states also must be corrected. One should enjoy his food but it appears sensible to eat to satisfy the body needs instead of to compromise with an inordinate appetite. For this reason we prefer a more gradual reduction in weight than frequently advised. The more slowly patients reduce their weight the more apt they are to maintain that reduction.

One of the greatest difficulties is to maintain the cooperation of the patient unless the obesity is accompanied by some serious defect such as diabetes, hypertension,

heart or kidney disease. In these conditions the immediate hazard of overweight is considerable and the reduction of weight is urgent.

Some people function best at certain weights. A reduction in weight may seriously interfere with the efficiency of some people. I have known a virile, aggressive, dynamic man to be willing to sacrifice length of years for fewer years filled with plenty of action.

The best metabolic stimulant is judicious exercise. We have used dinitrophenol with varying success. Free perspiration, rash, and a feeling of heat are its most constant untoward effects. One of our patients on 1000 calories appeared to have reached her limit in loss of poundage. Feeling our way cautiously, we put her on dinitrophenol. The first week she gained 6 pounds, which meant that she relaxed her dietary discipline and expected the medicine to do the work. A placebo may be of value with some patients.

Any drug which has the power to raise the basal metabolic rate from 27 to 50 per cent, as proved by Cutting and Tainter, is a drug of potential harm, but to say that dinitrophenol should not be used because of its toxicity is beside the point.

ETHEL MAY HOBSON (Philadelphia): My duty is to keep watch over the dietary records in these cases, and I have many interesting experiences. In one case of an 850 caloric diet the patient was pleased with herself because she lost 29 pounds in 36 days, most of which was fluid. When I go back to her she will not lose more than one pound a week, and it will be difficult to get her to understand that it is worth while to continue treatment. Weight reduction would be very discouraging if we did not use the dinitrophenol and other dinitro compounds along with a diet moderately restricted in calories, but by this means we can enable these patients to lose weight quickly and keep them on a proper diet for a long time.

M. G. WOHL (Philadelphia): I have had some experience with this drug in the Temple University Hospital

Endocrine Clinic for several months, having used it in some 40 odd cases. Some very bad dermatoses of the urticarial type followed its use. In one instance the reaction was so severe that the patient had to be confined to the hospital. In another instance hemorrhages developed not unlike those seen in purpura hemorrhagica. In another case jaundice occurred. What militates against the use of dinitrophenol is its effect on the circulatory system. We have tested the velocity of the blood flow before and after the administration of dinitrophenol. In 30 cases before administration of the drug, the average velocity was 17.4 of a second and in 17 cases of this series after the use of dinitrophenol the velocity was 12.8 of a second. Because of the physiologic strain that obesity throws on the organism great caution is to be exercised in the use of accelerators of the type of dinitrophenol.

I am glad to hear Dr. Bortz state that in the treatment of obesity, as in any other metabolic disorder, diet is the best agent and cannot be displaced by any drugs. The fact that laymen can get this drug without the physician's prescription is unfortunate. In a recent number of the *Journal of the American Medical Association* there was a notice that the California Board of Health has passed a resolution forbidding the use of dinitrophenol except by a physician's order. No person should be allowed to administer dinitrophenol without the careful supervision of a physician.

DR. BORTZ (in closing): Dinitrophenol is just one of the series we are studying at present. We are also studying dinitrocresol. Another drug we are not ready to report on yet is dinitrocyclopentylphenol, which apparently has a much more active effect in accelerating metabolism but is only about one-fifth as toxic. By the use of one of these new dinitro substances we may be able to devise a drug for the treatment of obstinate cases of obesity which cannot be controlled by diet alone. We should look cautiously on these drugs but not condemn any of them too hastily.

RUPTURE OF THE KIDNEY*

THOMAS C. STELLWAGEN, M.D., PHILADELPHIA

This is an age of speed, hurry, and bustle. Man's constitution was not devised to withstand the shocks that modern day locomotion delivers. Ingenuity has overcome many of nature's discrepancies so that, today, travel at high speed is comparatively safe until something snaps or meets with another object. If the golden chain is broken, injury is the result. Were it possible to transmute man into an elastic rubber complex, some of the prices we pay for high speed would not be collected. Inasmuch as our civilization demands faster and still faster travel, surgery must be fitted to cope with injuries produced by rapidly moving machinery.

The kidneys are located within the bony, muscular framework of the torso and are protected

from blows and shocks by the anatomical construction and distribution of the surrounding tissues. They are surrounded with protective capsules which hold them in place and act as buffers to protect them from temperature changes. It is evident that this architectural plan ministers to the physiologic welfare of the kidneys. We marvel as to how comparatively few are the really serious injuries to the kidneys. The human body may suffer extensive bruising and crushing, the kidneys often escaping.

Küster presented statistics relative to kidney injury. He stated that only 1 person, in 1000 injured, had the kidney hurt and further that in 3000 necropsies, in cases of violent death, only 13 renal injuries were present. Statistics, at this time, placed the incidence of kidney injury in traumatic deaths at about 8 per cent. These le-

* Read before the Section on Urology of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 2, 1934.

sions are more commonly met with in males (about 93 per cent). Women are less frequently sufferers because of the broader and higher iliac crests. Also, they are not subjected to the occupational risk. With the advent of women entering into competition with men and discarding the corset, this ratio will increase. This is not the only price they will pay for their sophistication. Smoking will increase the incidence of stomach and duodenal ulcer and the mental strain for which nature did not intend them; suicide will become more common in their sex.

If the kidney is seriously injured, it becomes a problem of magnitude. Our duty in such emergencies is an important one. Bold forbearance from operative procedure requires the acme of courage. In view of the possibilities of such an injury is it not a safer plan, if in doubt, to expose the kidney and definitely determine the extent of trauma it has suffered? The latter statement may be criticized as ultraradical. Possibly it is.

Many cases of slight kidney injury occur in which a small amount of blood appears in the urine, accompanied by the classical symptoms of injury but of a milder type. Exploration should not be done in these cases. There are, however, the borderline cases in which it becomes a grave question as to what to do. Conservatism is unquestionably humane if it turns out to be right, and inhuman if wrong. It must always possess the leaven of broad experience, and the surgeon should be on his guard lest he be lulled into a state of security. The findings of so-called instruments of precision may be wrong, even in the hands of acknowledged experts. Hemorrhage may abate temporarily because of nature's protective forces. If the primary shock abates and blood pressure regains itself, reactionary insidious bleeding may occur. This does not always present itself in the open, forward way of the highwayman who sticks a gun in your face and says, "Hands up!" It may make its approach stealthily, like the pickpocket. It is conceivable that such a hemorrhage can do irreparable damage to a kidney. I have seen its ravages and sincerely regretted my watchful waiting.

A ruptured kidney must be thought of in possibilities, as follows: (1) Immediate danger to life from massive primary or secondary hemorrhage; (2) subsequent danger of infection by one of the several routes of entry; (3) deformity following injury that interferes with drainage, which enhances the danger of later suppurative pyelonephritis; (4) malposition of the organ, which condition also adds to morbidity

expectancy; (5) a remote possibility of neoplastic changes in an old blood clot.

Exploration of the kidney through the loin does not entail serious danger to life. It gives definite control of the situation, and I have saved kidneys by so doing that would have been lost otherwise. This applies equally, but with greater danger, if the transperitoneal route is used.

Rupture of the kidney was a recognized entity in the early days of surgery. Celsus described the classic symptoms as testicular and groin pain, difficult micturition, and hematuria. Gittler of Leipzig published a dissertation upon it in 1596. Chopart devoted a chapter in his book to wounds of the kidney. In this presentation my object is not to quote statistics in general but to confine my remarks to my personal views and experiences in these emergencies.

The kidney may be so injured that the hemorrhage passes either into the perinephritic area, the peritoneal cavity, or both. In children under age 10 and in very thin persons, intraperitoneal hemorrhage is more commonly encountered because the fatty capsule is not present. Rupture of the organ is usually parallel to the direction of the urinary tubules. However, it may be at right angles to them.

There are sequences other than those mentioned which must be borne in mind. A kidney may be literally pulped by a blow and yet the patient may present but fleeting symptoms of shock and comparatively no bleeding. This fact will be substantiated by the report of such a case. Infarction from vascular injury may result. Secondary hemorrhage from displacement of a thrombus is also to be considered.

In all cases of injury of the kidney, it is our duty to employ all practical avenues of study before arriving at a conclusion unless the status of the case presents no element of doubt. The generally used classifications of these injuries do not offer to me a clear conception of them. I have the temerity to offer a substitute.

The commonly accepted orientation is as follows: (1) Subparietal injury; (2) penetrating wounds; and (3) spontaneous rupture.

The suggested regimentation is, primarily: (1) Extrinsic; and (2) intrinsic.

1. Extrinsic group:

(a) In which a blow is delivered directly over the kidney, thus causing a rupture.

(b) Rupture by contra-coup.

(c) In which a wound of entrance is present.

2. Intrinsic group:

(a) Rupture produced by muscular effort and acute bending of the torso.

(b) Spontaneous rupture.

Classifications are essential in the consideration of surgical problems, but some of them do not go to the point and are not self-explanatory. They befog the student because of their cumbersome. The terms *subparietal* and *subcutaneous* do not offer a clear conception of what we wish to explain. To me, the latter arrangement goes more directly to the point of the situation. It is evident that a force of sufficient degree, delivered from without, may jolt or disturb the organ sufficiently to injure its anatomical structure. Also, an impact may be suffered over a distant area and its vibrations transmitted through surrounding tissues to the kidney in sufficient degree to produce vascular rhexis. This may be likened to the explosive effect of the modern high powered rifle bullet that, within certain ranges, explodes tissues.

The intrinsic group is not so well understood nor so commonly encountered. The first classification is readily understandable from the mechanics involved. If you squeeze a lemon violently enough, you rupture it. A kidney *in situ* is similar, and the problems of stress delivered to its substance by bending or squeezing bear a relationship. The problems of rupture in this group are much involved, and their entity must not be disregarded. A stone, because of its physical characteristics, may subject the organ to greater danger of injury. Intranephritic pressure also should be considered. Dislocation or fixation of the organ in abnormal position is an assisting factor. Adhesions may also be an added increment in such cases. It is an established fact that the relaxed, drunken man does not injure himself as often from a fall as the tense, sober one. Rupture of the male urethra occurs most frequently adjacent to or, in part, within the fixed or membranous urethra.

Spontaneous rupture is a debatable problem. It, however, has been reported by authorities whose reputations are beyond question. Personally, I have never encountered such a case.

My surgical experience with rupture of the kidney consists of 7 cases, in all of which exploration was done. The histories will not be detailed, simply the outstanding facts that led to exploration.

CASE REPORTS

CASE 1.—The accident occurred to a driver who fell from an ammunition truck and struck a stone culvert, having the wind knocked out of him by the impact. The immediate picture was one of shock. He remounted the truck and was driven to the field hospital. There was slight evidence of abdominal shock. The urine was blood tinged. There was no cystoscope available. Bladder injury was ruled out by the simple tests of latter days.

The blood in the urine disappeared. There were microscopic evidences of red blood cells. The patient's condition improved, but he was never off of the possibility list. Consultation was requested because of the persistence of tenderness in the costovertebral angle. He was seen by 4 surgeons and the question of exploration was discussed. The vote was 3 to wait for further developments and 1, my own, to explore his loin. One other member of the group later felt as I did and voted with me, making it even. At operation the kidney was found pulpified. It reminded one of a kidney capsule filled with blackberry mush minus the seeds. Nephrectomy was done and the patient recovered.

CASE 2.—This patient was an aviator who crashed. His condition was such that surgeons would have been inclined to treat it expectantly. In view of my former experiences, we decided to explore the right loin. A tear about 4 cm. in length was found in the capsule paralleling the long axis of the organ. About 15 c.c. of blood had exuded from the kidney into Gerota's capsule. The blood was removed and the kidney exposed. When the kidney was lifted from its bed a pronounced ecchymotic area was seen within the peritoneal cavity. The toilet of the kidney and its pouch was completed. The hemorrhage was controlled by compression sutures over catgut half-rings, and the rent in the capsule was sutured. Drainage was placed in the loin and the wound closed. The abdomen was opened and a tear repaired in the posterior margin of the liver. The patient recovered and, to the best of my knowledge, the kidney was conserved.

CASE 3.—F. W., male, age 35, admitted to Jefferson Hospital, Dec. 15, 1930, and discharged Jan. 14, 1931. The patient walked several blocks to the accident ward of the hospital, complaining of very severe pain in right loin radiating forward and downwards toward the bladder. He stated that he fell backward 6 feet from a ladder, striking his right loin across a saw-horse. The resident physician noted beginning shock. The physical findings were as follows: Extreme tenderness on right side of abdomen, extending well toward the back; marked rigidity over this area; increasing dullness in the right flank and increasing swelling or a distinct bulging. Shock was becoming more pronounced. A diagnosis of ruptured kidney was made.

The usual lumbar incision was made and a tremendous hematoma and effusion of blood was noted in the pericapsular tissues. The pedicle was intact. The kidney was removed. It was split from pole to pole through the pelvis, with many diverse radiating divisions.

Shock was immediately combated. As soon as a suitable donor could be obtained, blood transfusion was given. On admission, the hemoglobin reading was 74 per cent. The day following the operation it was 50 per cent. During the convalescence the hemoglobin steadily increased. Too much reliance cannot be placed on the first hemoglobin estimation while the patient is in shock. Not until reaction from shock is accomplished will one get a more correct estimation of the hemoglobin.

CASE 4.—S. A., male, age 16, admitted to the Jefferson Hospital complaining of pain and tenderness in the left loin. While riding in the rumble seat of a Ford roadster, he was thrown against the side of the seat when a truck struck the roadster. He was brought to the hospital, and while in the accident ward passed bloody urine. The patient was apparently comfortable except for the pain in the left loin. It was not severe nor did it radiate. The color was good, the pulse full and strong. The physical findings over the abdomen were

noted as follows: There was a swelling in the left flank, the size of a banana, just below the costal margin; it was tender. The entire abdomen was rigid. Hemoglobin 53 to 49 per cent. Red blood corpuscles—2,700,000 to 2,506,000. A flat roentgenogram of the abdomen revealed an obscurity of the left psoas muscle outline. The patient was admitted to my service; a diagnosis of ruptured kidney was made and immediate operation was done.

Under spinal anesthesia, a left lumbar incision was made. Extravasation of blood in the extraperitoneal structures was present. The kidney, which was split in two and hanging to the pedicle, was removed. Convalescence was uneventful. This patient presented no symptoms of shock until 16 hours after admission into the hospital.

An analysis of the surgical records of Jefferson Hospital over a period of 14 years (1920-1934) reveals that a diagnosis of injury of the kidney was made in 22 cases. Six of these were listed as definite rupture of the kidney, with recovery after operation; 5 occurred in the left kidney and 1 in the right kidney. There were 4 cases of laceration of the right kidney, 3 of laceration of the left kidney, 5 of contusion of the right kidney, and a like number of the left kidney.

Rupture of the kidney was associated in 4 cases with other organs—liver, spleen, and intestines. Death resulted in all 4 cases.

CONCLUSIONS

1. Injury to the kidney will probably increase; hence, the intern must be conversant with its symptoms and signs.

2. The chief should dictate the policy of exploring or waiting.

3. A change in the classification of such injuries seems in order.

4. Exploration in doubtful cases is a tenable procedure in view of what silent damage the organ may have suffered.

5. The primary results of waiting are calamitous in some cases.

6. The morbidity that ensues in those patients in whom severe damage has resulted is a very potent problem for consideration.

7. A so-called conservatism exists among urologists concerning operative interference.

8. Definite information gained by actual contact with the kidney will prevent many of the sequences which cause trouble.

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ABSTRACT OF DISCUSSION

EDWARD J. McCAGUE (Pittsburgh): Dr. Stellwagen has examined the incidence, which is increasing, the mechanics of the injury, and the primary and secondary

effects of rupture of the kidney. He cites the fairly large group of slight renal injuries, with all the clinical manifestations, but of a mild form, that should not be explored but treated conservatively. The problem which he presents is the borderline or doubtful case, which he feels should be explored, and he has thoroughly justified his position in the history and management of the 4 cases he has just reported. We cannot take issue with Dr. Stellwagen on this type of case nor can we subscribe to the view held by many, that each injured kidney should be operated upon at once. The difficulty of establishing extent of damage in these renal injuries will tax the diagnostic ability of men who have had a large general and urologic surgical experience.

How soon after injury is the patient seen? How profound is the shock? Is the abdominal picture that of an associated intraperitoneal accident or is it the renal ileus so commonly seen in the renal trauma of traumatic surgical origin? The latter as a rule is not so dramatic in its manifestations and does not show itself as early as the peritoneal reaction to a ruptured viscus.

The age and condition must be taken into consideration. The young individual will withstand the most mutilating form of injury, which would be fatal in an older person unless promptly treated. During the battle of Cambrai, in November, 1918, I was assigned to C. C. S. No. 29, B. E. F. After the second day the surgical director referred to my table the gunshot and shrapnel wounds of the kidney and bladder, and I was fortunate in seeing a large number. It was astounding that young men who had such major accidents and damage to kidney could survive transportation from the field, hemorrhage, and shock, and could recover to such a degree that they might be subjected to surgery.

The practice in this country in the management of renal injuries is a conservative one. Our position has been to try as well as we could to deal with the individual problem. If the hemorrhage has not been severe and progressive, and intraperitoneal injury can be ruled out, expectant treatment has been followed.

We have abstained from any instrumentation unless it was absolutely necessary to establish the presence of the kidney on the opposite side. Retrograde injections of pyelographic media into an already traumatized kidney substance is not without danger, and excretory urography is of little value if the blood pressure at renal level is so low that function is impaired.

Dr. Stellwagen's position on the management of the graver forms of renal injury is a sound one; that is, if these grave forms are recognized and treated promptly, there will be a reduction in the mortality and morbidity that follow in the wake of these renal injuries.

WILBUR H. HAINES (Philadelphia): I have always felt that where there is any doubt as to the severity of hematuria following suspected rupture of the kidney, there is no objection to doing an exploratory nephrotomy. There is little or no shock to a retroperitoneal exposure of the kidney and it is far better for the surgeon and patient to be sure, than to procrastinate. The cardinal symptoms are pain, tumefaction, and hematuria. Uncontrollable hematuria with the clinical evidences of shock and a low red blood cell count demand operative investigation at once.

In one instance, I operated almost too late. A boy was kicked over the left renal region in a professional football game. He bled profusely for 5 days. The family refused operation, encouraged by their family physician. We resorted to injections of adrenalin and silver nitrate per ureteral catheter, with slight cessation—a dangerous method which should be condemned. Two blood trans-

fusions were performed. Finally, his condition became alarming. A quick exposure was made and the pedicle clamped, and the patient returned to bed for supportive treatment and transfusion. The clamp was gradually loosened and removed on the fifth day. The kidney was removed 3 weeks later. Recovery was uneventful.

On the other hand, there are cases of hematuria following alleged injury in compensation work which justify watchful waiting. As Kretschmer states, most of these patients have some preëxisting disease such as tuberculosis, stone, or neoplasm. I have had 2 such cases referred by insurance companies in the past 3 weeks. However, there are some who do not have such a pathologic condition and, as Dr. Stellwagen has

pointed out, these cases should have a thorough urologic study before discharge because of the possibility of surgical kidneys at some future time.

I like Dr. Stellwagen's classification. It is good because it is simple. Perhaps the extrinsic group might need some qualification.

DR. STELLWAGEN (in closing): This subject was presented not because I wish to be too radical about it, but because a very serious urologic problem has arisen. I have seen a number of cases of ruptured kidney go by default because of procrastination and feel strongly that the method of exploration when in doubt is a very good one.

MINOR CONDITIONS AFFECTING THE EAR, NOSE, AND THROAT*

JOHN R. SIMPSON, M.D., PITTSBURGH

Most of the papers presented before this section deal with some major condition concerning which the literature is rather complete.

It is worth while to deviate from the usual custom and discuss some of the so-called minor conditions which confront the specialist in his daily work, including a consideration of a few minor operations. This will be done at the risk of presenting some well-known facts, and your indulgence is asked if many of the statements seem commonplace.

About 15 years ago a Chicago specialist told the writer that he and a half dozen leading men in our specialty held several meetings each year at which they discussed solely their failures and mistakes, not one word about their successes. He claimed that he derived more benefit from such association than from membership in the national societies.

There has been a marked tendency to report only spectacular or serious cases which have resulted favorably. Nobody knows how many patients with brain abscess have died; only the ones that get well are reported. We learn a great deal from a complete report of an unsuccessful case provided the necropsy has been done by a competent pathologist. Likewise we learn from our own mistakes and the mistakes of our colleagues. The older men in our specialty, having practiced longer, quite naturally have made more mistakes than the younger men.

It is the duty of the older men to pass on to the younger men what they have learned from experience, even though modern youth does not take much stock in the wisdom of its elders. In that spirit we shall consider the subjects chosen for this paper.

INCISION OF THE EAR DRUM

Many general practitioners and an increasing number of pediatricians are doing this operation; so they must consider it a minor procedure.

How often do they cut the canal wall instead of the drum, not to speak of doing injury to the malleus handle or incising the inner wall of a middle ear if no drum is present? The inner wall may be injured although it has stood considerable abuse at the hands of most of us.

A case was seen with a colleague, who reported that immediately after incising the drum the patient became very dizzy. The patient presented the classical signs of labyrinthitis. Fortunately she recovered but there remains total deafness in the ear.

AURAL POLYP

The removal of aural polyps is often entrusted to a resident, a dispensary worker, or an assistant.

The writer can testify to an unhappy experience in his first year of special practice. While working in the dispensary he attempted to remove an aural polyp. There followed labyrinthitis, meningitis, and death. Needless to say, the removal of a polyp from that time forth ceased to be a minor procedure for him.

Anyone about to attempt the removal of a polyp should consider that it is connected with the inner wall of the middle ear and that its base probably rests on necrotic bone. If traction is made on the growth the bone may be dislodged and the labyrinth opened, thereby exposing it to infection.

General anesthesia is always advisable in children.

* Read before the Section on Eye, Ear, Nose, and Throat Diseases of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 3, 1934.

INFECTIONS OF THE NOSE AND UPPER LIP

Many lives have been lost from infections involving these parts due to the direct communication of their veins with the ophthalmic vein and the veins within the dura including the superior sagittal sinus. Treatment may be expressed in 2 words: "Hands off!" To assist nature in localizing the infection, hot boric compresses may be used. The abscess should not be squeezed or incised.

In this connection it is proper to call attention to the danger of packing the nose after ethmoid operations unless absolutely necessary to control hemorrhage, and then only as lightly as possible.

A young college girl while visiting a school-mate during Easter vacation was persuaded to have an operation on her nose. The operation was deemed so trivial that the parents were not even consulted. Within 48 hours she was dead of meningitis. It was thought that the tight packing after the attack on the ethmoids had something to do with causing the meningitis.

OZENA

This subject is mentioned solely to tell you of a solution, suggested by an English physician, which the writer has found very useful for this troublesome condition. It consists of glucose (7.5 per cent), salicylic acid (.5 per cent), and sufficient water.

Spray the nose liberally several times a day. The therapy is based on the theory that the organisms which cause ozena thrive on protein material and by substituting a carbohydrate diet the bacterial flora is eliminated.

STREPTOCOCCUS MUCOSUS CAPSULATUS
INFECTIONS OF THE MIDDLE EAR

Otologists are familiar with the organism so named, although Dr. Anna W. Williams states that there is no such organism and it should be called pneumococcus Type III.

The reason for including this type of infection is the mildness of its behavior. Its occasional appearance and the sneaking, symptomless manner in which it acts is likely to lead to its being overlooked until some intracranial complication develops. During the past year 2 cases were recognized.

CASE REPORTS

CASE 1.—Man, age 69, who lived in the country, had ear trouble for 9 weeks before coming to the city. During that time he experienced considerable pain, deafness, and tinnitus, but there was no discharge from the ear except for 2 short periods after the drum was incised. Following the mastoid operation which was done immediately, he continued to have pain and temperature. He

died 5 weeks later of meningitis due to pneumococcus Type III.

CASE 2.—Girl, age 5, complained of slight pain in one ear on 1 or 2 occasions during 5 weeks with some bleeding at one time. When first seen she had unmistakable signs of meningitis. Cultures from spinal fluid, as prophesied, showed pneumococcus Type III.

The ear drum was red and appeared slightly thickened, but the short process could be seen. The roentgenogram showed some cloudiness of the mastoid near the antrum. Operation was refused. The child lived 2 weeks.

CASE 3.—Girl, age 5, was seen about 3 years ago. On examination one drum was found red but, as it was not bulging, it was not opened. Reëxamination 3 days later revealed the same picture. It was decided that the ear should be observed. As the girl was not very ill, she came to the office several times. About the tenth day the drum was incised, only blood being obtained. This state of affairs continued about 3 weeks until one day she complained of earache accompanied by a moderate rise of temperature. Mastoid operation was advised and done, and the pneumococcus Type III was grown on culture from the wound. The pediatrician who was present did not seem to be greatly impressed with the amount of destruction of the mastoid cells.

Experiences such as these should teach us to regard with suspicion every middle ear inflammation of a mild character that does not subside within a few weeks, particularly if accompanied by marked deafness and tinnitus.

If upon incision of the drum very little drainage is recovered and the drum picture remains unchanged for a time, there is strong presumptive evidence of a pneumococcus Type III infection.

FURUNCLE OF THE EXTERNAL AUDITORY CANAL

The writer has not lanced a furuncle of the canal for 15 years. The most satisfactory local treatment is to introduce cotton wicks saturated with ichthyol and glycerine and apply heat (hot water bag or electric pad), interrupted by hot boric compresses 3 or 4 times a day.

Dr. Albert H. Andrews of Chicago claims that an elastic band applied around the neck will lessen the pain.

If the furuncle is incised, be sure not to cut down to the cartilage. One case of perichondritis of the auricle due to this cause came under my care.

RETROPHARYNGEAL ABSCESS

Perhaps this condition does not belong in this discussion, but as the writer has seen many of these cases in his service at the Children's Hospital of Pittsburgh he desires to give the benefit of his experience. Cases occurring in children during the first 2 or 3 years of life will be considered.

Retropharyngeal abscess is the proper term but the abscess nearly always will be found pro-

jecting from the lateral wall of the pharynx of one side, not from the posterior pharynx. Any interference with the child's breathing should at once suggest this condition as well as other conditions that cause inspiratory difficulty.

Swelling of one side of the neck may serve as a clue to the side involved. Examination should include inspection of the throat and palpation of the mass. There are 2 good reasons for introducing the finger: (1) To determine the position, extent, and consistency of the mass; (2) to determine the absence or presence of pulsation.

Since Salinger and Beck have called our attention to the occurrence of false aneurysms or sacculations of the internal carotid artery from parapharyngeal infections, one should satisfy himself that he is not about to incise an aneurysm. A colleague had such a disastrous experience.

The middle ear on the side of the abscess is nearly always inflamed. Having satisfied yourself that you are dealing with an abscess, what is the treatment?

Every retropharyngeal abscess in an infant demands incision and drainage. If it is permitted to rupture spontaneously, the child is likely to suffocate. The method of procedure will depend upon the size and location of the abscess, and the condition of the patient.

Retropharyngeal infections may be divided for purposes of treatment into 4 groups:

Group 1.—The abscess is on one side of the pharynx and does not extend down to the larynx. The breathing is not greatly obstructed and the child is in good condition.

Group 2.—The abscess is one sided, is large, impinges on the larynx, and greatly obstructs breathing. The child is nearly exhausted.

Group 3.—The abscess is on the posterior wall of the pharynx. It is truly retropharyngeal but it does not cause much difficulty in breathing.

Group 4.—The abscess is in the same position as in Group 3, but it is quite large and crowds the larynx. The child gets scarcely any air; its condition is critical.

Treatment of Group 1.

Have in readiness suction and tracheotomy sets.

Place the child's face to the side and downward with the head projecting beyond the end of the operating table. One person should hold the child, another steady the head.

Never use an anesthetic of any kind.

Get underneath the child and depress the tongue with a metal tongue depressor. Do not introduce a mouth gag.

Make a small incision with a narrow pointed knife and immediately introduce the suction tip. The suction tip serves a double purpose. It removes the pus as it is expelled and can later be used to press upon the abscess wall.

When most of the pus has been expelled, a longer incision may be made and the opening spread with forceps.

It will now be relatively safe to introduce a mouth gag and palpate the throat. This is done to make certain that all of the pus has been evacuated.

Treatment of Group 2.

If the child is in a weakened condition and the laryngeal obstruction is marked it will be safer to use the external route, after the method of Mosher, for approach to the pharyngomaxillary region.

If, however, the child is in good condition the method for the first group may be followed providing the abscess is evacuated very slowly.

Treatment of Group 3.

This treatment can be handled by the internal route as proposed for Group 1.

Treatment of Group 4.

A tracheotomy should be done as the first step. Then the procedure for Group 1 should be followed.

It will be found that the vast majority of cases will not require the external route or a preliminary tracheotomy.

Treatment does not end with the evacuation of the abscess and the return of the child to its bed. Later the same day or during the following day or two the breathing may become bad again. Should this occur, it will probably be due to:

(1) Edema of the larynx.

(2) Failure to have evacuated the abscess cavity completely. This may be unavoidable in some cases.

(3) Re-formation of pus. The latter is likely to occur the following day and it may be necessary to reopen the abscess and evacuate the pus.

It does not seem proper to conclude a discussion of retropharyngeal abscess or to end this paper without mentioning a subject concerning which several splendid articles have recently appeared in medical literature. I refer to what has been called parapharyngeal or pharyngomaxillary infections.

If you have not read the articles on this subject by Mosher, A. L. Beck, Salinger, and Colby Hall, let me urge you to do so.

ABSTRACT OF DISCUSSION

GEORGE B. JOBSON (Franklin): The essayist has rightly called attention to some disasters which may follow improper paracentesis of an ear drum. This procedure should never be attempted except by one who is skilled in its performance. For a number of years I have substituted a large V-shaped incision, placed in the lower quadrant of the drum, for the classical one. The incision is made with a Chapman paracentesis knife, which is supplied with an extensive V-shaped cutting edge. Thus a number of the radiating fibers are severed, which promotes gaping and prevents early closure of the wound better than the usual method.

The removal of aural polypi should not be considered lightly. The granulations may be removed with comparative safety by a sharp ring curette carried in front of and beyond the granulations. An attempt should be made to remove them with one stroke of the instrument, the cutting of which is directed backward and outward against the inner surface of the tympanic ring, thus avoiding contact with the inner tympanic wall.

The caption, "Hands off!" is expressive in infectious nasal and upper lip conditions. I know of a fatal case of cavernous sinus thrombosis which was caused by puncturing a papule in the nose with a needle and squeezing pus out of it.

Ozena is a most intractable condition to treat. The formula suggested is new to me. The most satisfactory remedy which I have used in recent years is the removal of all crusts from the nasal passages and pharynx, drying the mucous membrane with cotton swabs, followed by spraying with 0.5 per cent chromic acid solution. This treatment is given once or twice a week. The patient is instructed to douche the nose daily with a solution of 1 teaspoonful of sodium perborate in 1 pint of warm water. Although it is not curative, comparative freedom from odor and crust formation is obtained. For the past 2 months I have used compound iodine vapor after Dr. Wells' formula on an ozena case with satisfactory results, and it merits further trial.

The warning not to lance furuncles of the auditory canal should be heeded, especially in the early stage, for the reason that the natural barriers will be broken down and infection spread.

During the past 2 years I have succeeded in aborting furuncles of the auricle by inserting a fine electrocoagulation needle into the center of the furuncle and turning the diathermy current on for 2 or 3 seconds.

JOHN B. McMURRAY (Washington): There never was a truer statement made with reference to the treatment of infections of the anterior nares and upper lip than that of "Hands off!" Serious complications and death follow the careless handling of infections in this area. Considering that the venous supply around the upper lip and angle of the eye and the nasopharynx through the pterygoid plexus is all one intercommunicating venous channel, without valves, few serious meningeal or intracranial involvements result from infections in the upper respiratory tract.

During the past year a patient, age 10, was admitted to the hospital following a peritonsillar abscess which had been drained by incision 3 days previously. On admission there was very marked edema of the lids and conjunctiva of both eyes, and dilatation of the superficial vessels of the chest and neck. The child was extremely ill and died a few hours after admission. Necropsy revealed a bilateral thrombosis of the cavernous sinus. The infection entered posteriorly through the pterygoid plexus, which is unusual in my experience.

An internal pack in the presence of infection is extremely dangerous. This is particularly true following internal ethmoidal operations. All packing, except to control hemorrhage, should be left out of the nose after operation. This includes not only the internal ethmoid operation but also radical operations on the antrums and on the fronto-ethmoids. It is not only safer so far as the patient is concerned, but it adds a great deal to his comfort. Following the radical antrum operation with no packing, very often there is no swelling of the cheek and the patient is spared the painful removal of the pack.

The treatment of ozena in my experience has been cleanliness. If you can impress upon the patient the fact that this is important and if he will carry out instructions and keep the nose clean for a long period of time, most of these cases become almost crust free. It has been my habit to give patients a powder that is cheap and that they can carry with them to wash the nose 2 or 3 times a day, using an ordinary tumbler. No expensive apparatus is necessary. The nares should be inspected at frequent intervals to see that the patient has mastered the art of getting the nose free of crusts and keeping it free.

In cases of otitis media with impairment of hearing, tinnitus, and a sensation of fullness in the ear with very little local inflammatory reaction and mucoid discharge, the pneumococcus Type III or the Streptococcus mucosus capsulatus should be suspected. Smears and cultures carefully taken in all cases of otitis media are of value. Early roentgenography of the mastoid process in cases of acute otitis media is of value inasmuch as it gives early information as to the type of mastoid. If the roentgenography is repeated later, a comparative study often leads to an early diagnosis of a destructive process and advancing infection of the mastoid.

The essayist's classification of retropharyngeal abscesses is interesting. Retropharyngeal abscesses have their origin in the epipharyngeal lymph glands located at the junction of the posterior and lateral walls of the pharynx. A nasopharyngitis is an antecedent of most retropharyngeal abscesses. Sometimes this infection is so mild as to escape the attention of the parents. At other times it is quite severe and accompanied by an acute otitis media with a cervical adenitis. Almost always there is some swelling of the cervical glands on the involved side. With the breaking down of the retropharyngeal glands the pus burrows downward behind the retropharyngeal mucosa.

The cervical glands involved are located just anterior to the common carotid. In many cases the cervical adenitis is noted by the parents as preceding the respiratory and deglutitory symptoms resulting from the retropharyngeal abscess. The infection of the nasopharynx responsible for the retropharyngeal abscess often causes a bilateral cervical adenitis; but in the cases I have observed the cervical adenitis usually is unilateral, or more pronounced on the side of the retropharyngeal abscess. Ninety-six per cent of all cases of retropharyngeal abscess occur in children before age 6, and 70 per cent before age 2. As the condition is essentially one of infancy, there are few subjective symptoms. Difficulty in respiration and swallowing are the causes for the anxiety of the parents, and very seldom does the physician see these patients before the onset of obstructive symptoms.

Examination by direct inspection may show swelling on one side of the throat, but much more definite information can be obtained by palpation. Treatment is surgical.

Retropharyngeal abscesses have a relatively high mortality. In a series of cases coming under my observation, 3 deaths have occurred, one as a result of septicemia in a neglected case, one on the operating table while an external drainage was being attempted in a very wide-spread lateral extension, and another from a severe hemorrhage resulting from an erosion of the internal carotid artery. In the last case the abscess ruptured spontaneously while the patient was on his way to the hospital. Upon his arrival examination showed an opening into the cavity, and as it seemed to be thoroughly empty nothing was done. The child seemed so well that he was allowed to return home the same day. The next day, early in the morning, the mother stated that the child had had a hemorrhage. I saw him shortly afterward but could see no evidence of the hemorrhage in the throat. Six hours later the mother again reported a hemorrhage. Examination at this time showed some distention of the abscess cavity and a small clot protruding from the opening where the spontaneous rupture had occurred. The child was sent back to the hospital. A profuse hemorrhage occurred in the emergency operating room and the patient died in a few minutes. An erosion of the internal carotid artery had occurred.

Three patients collapsed after the drainage of the abscess. This was not due to pus entering the trachea. In one case drainage was done about 3 a. m.; at 8 a. m. the child was in good condition, but to satisfy myself that the cavity was thoroughly drained the patient was taken to the operating room, where a satisfactory inspection could be made under good illumination. Nothing was done except depressing the tongue and looking into the throat. The child immediately collapsed, the pupils dilated, respiration was suspended, and profuse perspiration appeared. For 2 days the child was kept alive by being placed on its left side and by the use of artificial respiration at intervals. Recovery followed. Another case had the same symptoms as enumerated 2 hours after drainage, but they lasted only a short time. The third patient collapsed immediately after drainage and all attempts to save life were futile.

The essayist states that it is relatively safe after drainage to introduce a mouth gag. It is unsafe at any time to use a mouth gag. Any attempt at drainage of a retropharyngeal abscess should be done with as little trauma as possible. Be satisfied when the abscess cavity is opened and let it alone, but keep these patients in the

hospital under observation until all danger of edema of the larynx is past and the abscess cavity is thoroughly drained and convalescence is well established.

PHILIP S. STOUT (Philadelphia): Nasal infections such as furuncles, should be let severely alone 99 times out of 100, or, at least, only mild treatments should be used; no trauma, operations, or strong medicaments. Occasionally there is a patient whose infection spreads upward so rapidly that one must act quickly, because these patients may die within 4 or 5 days; I have seen several such cases. If there is no sign of localizing by the third or fourth day and the infection is spreading rapidly up the side of the nose, inside and out, then one must consider some means of checking the infection on its way to the cavernous sinus or the meninges. On the side of the nose is the angular vein. This communicates with the ophthalmic vein and thus with the cavernous sinus. If this angular vein is obliterated early enough, the progress of infection may be blocked and the patient's life saved.

MATTHEW S. ERSNER (Philadelphia): A few words should be said about *Streptococcus mucosus* or pneumococcus Type III. In 1915-16, Dr. Coates and I made it a routine to prepare a vaccine from the infected material obtained from the operated mastoid, and the respective patients received the vaccine according to the dosage prescribed at that time. It is rather a singular coincidence that complications did not occur during this period. This was before the era when *Streptococcus mucosus* was considered a menace in otology. In recent years, Kolmer and Amano suggested that cultures be taken immediately after myringotomy so as to determine the organisms. If the *Streptococcus mucosus* is isolated, a vaccine should be prepared and administered so as to immunize the individual. Kolmer and Amano found that those patients who were immunized against the *Streptococcus mucosus* did not develop pneumococcal intracranial complications. This should be borne in mind.

Generally, *Streptococcus mucosus* does not produce a temperature. Were it not for the roentgen-ray studies, the mastoid might be overlooked. At the time of operation a great deal of bone destruction is found, and in many instances a perisinuous abscess or an epidural abscess. If the condition continues for any length of time, more serious complications frequently occur.

SIGNIFICANCE OF THE INTELLIGENCE QUOTIENT*

BALDWIN L. KEYES, M.D., PHILADELPHIA

In this brief discussion of the measurement of intelligence in children it will be our purpose to emphasize the interpretation of the results of psychologic tests. The various measures which have preceded the gradual development of these present-day psychometric tests, with which we estimate intelligence, and the methods now in use will not be reviewed here.

It must be recognized that brilliant psycholo-

gists have labored over many years to work out for us what now prove to be fairly simple and reasonably accurate systems of measurement of intelligence.

METHOD

The method used by many leading groups is the Stanford revision of the Binet-Simon test. This test has been selected for its simplicity and because it has become standardized sufficiently to be considered accurate enough for all practical purposes. To obtain accuracy, the technic of

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mental testing is just as important as is the method of testing used. Success rests largely upon the training and personality qualifications of the psychologist.

The child must be at ease and on a friendly basis of understanding and confidence with the examiner. The surroundings must be comfortable and quiet, and permit of concentration.

The examination involves questions principally demonstrating the endowed mental functions such as comprehension, reasoning, judgment, although it also includes some of the acquired attributes and subjects of general information. The test must be carried out exactly as outlined and no deviation may be permitted. This will be understood when it is recalled that each problem represents a number of months of age and, when totalled, demonstrates the mental age of the patient. Thus a child age 10 who can complete only problems totalling in their answers 60 months has a mental age of 60 months or 5 years.

MEANING

The interpretation of the result of the psychometric test rests upon the comparison of the estimated age of the patient with the actual or chronologic age. The ratio thus shown as the result of the test is called the intelligence quotient. The intelligence quotient or I. Q., therefore, is the figure derived by dividing the mental age by the actual age. Thus, if mental age is shown by tests to be 5 years, whereas the actual age is 10 years, 5 is divided by 10 to get 0.50 or an intelligence quotient of 50. Also, if the mental age is 12 and the actual age is 10, 12 is divided by 10 to get 1.20 or an I. Q. of 120. For all adults the actual age is reckoned at 16 years, which is considered the approximate level at which intelligence ceases to develop to any great extent.

For average purposes a mental age of 12 was considered the limit of a low normal, though recent surveys in some 10,000 records would seem to indicate that many so-called low normals rate a mental age of only about 9 years or an I. Q. of approximately 55. For our own purposes we prefer to place age 12 as a low normal limit with an equivalent I. Q. of about 75. The usual classification of I. Q. values with grade of intelligence is as follows:

- Above 140—Near genius or genius
- 120-140—Very superior intelligence
- 110-120—Superior intelligence
- 90-110—Normal or average intelligence
- 80- 90—Dullness, rarely classifiable as feeble-mindedness
- 70- 80—Borderline deficiency, sometimes classifiable as dullness, often as feeble-mindedness

- 50- 70—Moron
- 25- 50—Imbecile
- 0- 25—Idiot

QUALIFYING FACTORS

There are many factors which qualify the value of the intelligence quotient. A mere numerical I. Q. has little interest unless the patient is considered as a whole and the I. Q. only one part of the examination. A great deal of confusion and many errors in diagnosis result from overlooking the fact that an I. Q. is a report from the psychologist just as a roentgen-ray study is a report from a roentgenologist. Each must be considered in its relation to the patient as a complete unit, therefore only a part of a thorough study.

Physical Condition.—It is quite unfair to submit a physically ill child to a psychometric test and expect the resultant quotient to be an accurate estimate of that child's intelligence. It is a safe fundamental rule to submit every child to a physical examination before suggesting a psychometric test. Underlying physical conditions may be playing an important part in an apparent retardation, or may explain away what would seem to be a fundamental deficiency. The most important part of the psychiatric study of the child is the physical examination.

It is the pediatrician who first sees a nervous child and it is he who is best qualified to study that child. The child may not need the assistance of a psychiatrist, but he does need most fundamentally the expert help of the pediatrician. In hospital clinics by far the best results are obtained when the pediatric group first examines the child in detail and then refers him to the psychiatric clinic if it seems necessary. Of course, many cases come directly to the psychiatric clinic from other sources, and these cases are either referred to the pediatric department for preliminary study, or are stripped and examined by the psychiatric group.

Any psychiatrist gets a much more complete understanding of his patient's problem if he can visualize that patient through his physical handicaps and not only through his mental difficulties. There are any number of cases on record like that of the boy age 9, who was placed in an observation class because he was dull and unable to keep up with his school work and because his I. Q. rating was 60. A careful medical history and detailed physical examination demonstrated the presence of a low grade recurrent otitis media, which sometimes caused a slight rise in temperature. The boy had been referred for a check-up on his psychometric test, which was of course deferred. The otologist found a necrotic

area without sufficient drainage. This was removed and the condition cleared up.

The boy gradually lost his facial expression of dullness, which was really an unrecognized evidence of toxemia. His later psychometric test showed an I. Q. of 75, moving him up from a low moron to a low normal level. Obviously the relief from the ear condition did not advance the boy's mental age, but it did remove a very grave source of error from the psychometric test. Even such minor troubles as a bad coryza or a painful furuncle can interfere with complete accuracy.

Nervous Condition.—The presence of functional nervous states, of course, interferes seriously with a child's ability to do himself justice. Borderline choreic states or hysteroid types of reactions are definitely contraindications for a psychometric study.

Emotional Condition.—Emotional conditions also qualify results in these tests. It will be readily understood that an agitated or alarmed child cannot be attentive. Depressed states retard mental processes and dull perception. Overactive states lead to impulsive responses and interfere with judgment.

Fatigue States.—No tired child can properly perform exacting assignments, and care must be taken that states of fatigue do not exist when tests are undertaken. Even a seemingly well child will become exhausted by long physical examination and other studies, and it is wise to defer the mental scrutiny until another time when the patient is fresh and rested.

Environmental Situations.—Children who are victims of unfortunate environmental influences are usually more repressed and less alert than might otherwise be, and also they are often unable to express themselves freely. Not infrequently some of these children will reflect a decided limitation of mental expression although they may be quite normal, but lack sufficient use of their faculties to be able to register their ability when these dormant qualities are called upon for response.

Language Difficulties.—Language problems arise in many instances and must be considered in making notes of qualifying factors in all psychometric tests. Those children who speak English outside their homes and some foreign tongue to their parents are decidedly handicapped in the vocabulary tests, and are often quite at sea in some simple comprehension problems.

Training (Discipline).—Training along the lines of self-discipline and in accepting disciplinary control becomes quite noticeable in chil-

dren undergoing tests. Those who lack discipline find it difficult to confine themselves to direct questions and answers, and quite usually make errors due to failure of attention and concentration. On the other hand a child accustomed to too much control will make mistakes because of lack of confidence in his own ability and consequent hesitancy. Overly protected and repressed children as a rule do more poorly than the rough and tumble child who has an opportunity to develop freely and exercise all his endowed attributes in normal outlets.

Method of Examination.—The examination should be conducted in such a way that the child is given every opportunity to be his best. Any method with this objective is satisfactory. A small, quiet, and plain room to permit of concentration and avoid distraction is advisable. The use of a small chair and table to fit the average child makes the little patient feel comfortable and more at ease than if he is pushed up to a large desk in a big chair. The child and the examiner should be alone in the room and no interruption should be permitted.

Condition of Examination.—Special types of examinations are used when a child cannot speak, or is deaf or blind. In all average cases, however, the conditions of the examination must be identical. The problems are presented in a specified way, deliberately and clearly. Thus the child is permitted to work out his solution and respond in his own way. No repetition, prompting, or suggestion is permitted. The child must be made to feel that he is working out something interesting and not that his intelligence is in question.

Examiner.—The examiner must be calm, gentle, and friendly. A well-trained psychologist will make his small patient feel at ease and unhurried and quite unaware of being the subject of an interesting study. The service of a Ph.D. in psychology is not at all necessary for simple psychometric work, though of course the better trained the examiner the more information we obtain. Any intelligent and interested person can learn to do simple psychometric testing if he is willing to take time enough to learn the technic and will be patient enough to practice continually.

The trained psychologist can give a great deal of information beyond the realm of a simple measurement of intelligence. Such sources of trouble as personality defects, speech problems, and maladjustments are rendered much more understandable and clear cut by a trained psychologist who understands children.

PSYCHIATRIC EXAMINATION

Complete Survey of Patient.—The psychiatric examination of a child includes, therefore: (a) Detailed medical and social history. (b) Complete physical survey. (c) Psychometric test. (d) Consideration of qualifying factors. (e) Summation of the accumulated data and formation of an opinion based upon a balance of these facts one with another.

Psychiatric Interpretation of Findings.—We

must keep in mind that the psychologist's report, no matter how perfect, still lacks the complete psychiatric understanding of a physician trained to solve problems of sickness primarily, and reactions due to sickness secondarily.

The psychometric test as part of a complete study of the patient requires, therefore, the interpretation of a psychiatrist so that it may be fair to the child and useful to the pediatrician.

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PREVENTIVE TREATMENT OF GOITER IN SCHOOLS*†

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Simple goiter is a compensatory hypertrophy of the thyroid gland developed during the course of metabolic disturbances of unknown nature but depending immediately on a relative or absolute deficiency of iodine.

Simple goiter occurs sporadically or endemically in all animals having the ductless thyroid. It may occur in any part of the world, yet seaside localities seldom are afflicted with it whereas certain localities have it endemically. The so-called goiter belts are the Great Lakes region and the Cascade Mountain region in North America, the Andes region in South America, the Alps in Europe, and the Himalayas in northern India. Sudden outbreaks of the so-called epidemic goiter have occurred in military garrisons, in fish hatcheries, in dairy herds, and among poultry.

The essential cause is unknown but the immediate cause is a relative or absolute lack of iodine.

It is, therefore, only a local manifestation of a specific deficiency disease. It may result from a condition such as puberty, pregnancy, or lactation, which increases the need for iodine, from certain infections, from the partial removal of the thyroid which interferes with the normal absorption and utilization of iodine, or from the deprivation of iodine experimentally.

Drinking water has always been associated with the etiology, but we are still ignorant of the nature of the association. A great many chemical substances have been suggested as a cause but none has been proven to be responsible. Bacteria have also been suspected but the general belief today is that they play only a secondary or indirect rôle.

Simple goiter may be congenital or acquired.

The acquired form is seen mostly at the time of puberty, during pregnancy and lactation, or at the time of the menopause.

A wide range of morphologic changes may be present, depending on the duration of the enlargement and the species of the animal affected. The enlargement begins with hyperemia, a decrease in the colloid, and a hyperplasia and hypertrophy of the alveolar epithelium. From its developmental or actively hyperplastic stage the gland may involute to the colloid or resting stage, or the hyperplasia may go on to exhaustion atrophy. Simple goiters as seen surgically are usually in the resting stage, the so-called colloid or cystic goiters of the earlier writers.

In man the thyroid enlargement is often irregular and nodular. The nodular form is called struma nodosa in Europe and adenomatous goiter in America. These nodules or adenomata are said to be due to different rates of growth of the foci of cells of different physiologic age. These foci have been designated by Woeffler as fetal rests. The stimulus which initiates the growth of the more differentiated thyroid tissue and that which initiates the growth of the cell rest are probably identical. These nodular growths have certain of the attributes of tumor in that their growth may not be arrested by iodine or by natural physiologic recovery. On the other hand, many of these so-called adenomata are capable of functioning, and it is not possible to distinguish the functionally active from the functionally inactive by morphologic studies.

In long-standing goiters a great variety of terminal metamorphoses may be present. Among the more common of these secondary changes are hemorrhage, cyst formation, and calcification. Adenomata are frequently the seat of these changes and, in addition, they are the basis of at least 90 per cent of thyroid carcinomas.

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† Representing the Pennsylvania Association of School Physicians.

Thyroid enlargement is primarily a work hypertrophy in response to a physiologic deficiency. There are all degrees of this deficiency. In the milder grades no physiologic manifestations are detectable whereas in the severe degrees myxedema and cretinism result. The pathologic physiology of simple goiter may be expressed most briefly in Morel's dictum, "Goiter is the first step toward cretinism."

The first change in the thyroid in developing goiter is a marked decrease in the iodine store. It long antedates the morphologic changes. The normal iodine store is about 0.2 per cent of the dried gland. It has been demonstrated experimentally that if the iodine store is maintained above 0.1 per cent no hypertrophic change can occur. As the iodine store decreases below 0.1 per cent the hypertrophic and hyperplastic changes progressively increase so that in the extreme degrees of hyperplasia iodine is either absent or present only in traces. Such hyperplastic tissue has an extraordinary affinity for taking iodine from the blood stream.

The therapy of goiter may be divided into 2 parts, prevention and treatment. It is with prevention that this paper has to deal. Simple goiter is the easiest and cheapest of all known diseases to prevent both in man and in animals.

The preventive principle depends on the facts that, if the iodine stored in the gland is constantly maintained above 0.1 per cent, no hypertrophy occurs, and that the normal maximum storage in the adult human thyroid is around 20 to 25 mgs. Iodine in any form and administered in any way is effective.

In 1930, William Weston reported a series of the ash analyses of milk from points in the goitrous and nongoitrous areas of the United States. These analyses showed wide variations in all the mineral elements, but particularly so as regards iodine. As striking as were the variations in the goitrous regions, they were more striking between the goitrous and nongoitrous regions.

That milk was found to be so variable in its mineral and vitamin constituents suggested the thought that by the careful feeding of dairy cattle the usual great value of milk as a food could be greatly enhanced.

The thought also occurs that, since salt is such a necessity to cattle, the use of iodized or sea salt in the salting of cattle may be of great value in the production of milk containing an adequate amount of iodine. As milk enters so largely into the proper diet of children it seems logical that, if a great abundance of milk containing a sufficient iodine content can be made available at

reasonable cost, the problem of goiter in children will be solved.

In conclusion Weston states that the mineral content of commercial milks is highly variable. They are notably deficient in their iodine content. Iodine deficiency in the diets of children is the most outstanding of all the deficiencies in two-thirds of the area of the United States. Goiter is but one of many manifestations. Milk that naturally contains a sufficient amount of iodine, he says, to meet nutritional requirements can be made available in unlimited quantities.

Until the happy day arrives when the diet, the water, and the general conditions are so proportioned as to take adequate care of this important matter, the remedies at hand must be applied in an effort to combat the deficiency.

Some 12 years ago, enthused by the remarkable reports of the work of Marine and Kimball in administering sodium iodide to the school children of Akron, we inaugurated the plan in the schools of Clearfield, Pa.

At first the saturated solution of sodium iodide was used, but it was soon found that its unpalatability militated against its use. Many of the pupils refused it and others found that by adding the water carefully into the drinking cup they could drink the water and leave the heavy solution in the bottom of the cup.

After a few years the drug was changed to a tablet, with a chocolate base, carrying one-sixth grain of iodine. This tablet is given once a week during the entire school term of 40 weeks.

The province of the school physician consists only of preventive measures and we conform strictly to this ideal, allowing no pupil who exhibits any manifestation of hyperthyroidism to take the treatment. To this end we require first that the pupil present a written or printed request signed by the parent or guardian for the pupil to be given the treatment. Then a careful examination of the pupil is made, using the stethoscope in a search for tachycardia. While doing this, the extended hand is watched for tremor. By applying the thumbs of both hands to the sternoclavicular junction and pressing backward against the sternomastoid muscle, raising and lowering the thumbs, one can readily feel the isthmus of the thyroid. By doing this and by having the pupil swallow, the lower edge of the isthmus can be palpated and an estimate made as to whether or not it is enlarged.

The isthmus is the only part of the gland that can be palpated if it is normal. We classify the enlargement as Thyroid 1 and 2. If the isthmus is only slightly enlarged so as to be palpable, it

is classified Thyroid 1. If it is considerably enlarged and the gland is visible, or even if the isthmus is plainly visible, it is classified as Thyroid 2.

No Thyroid 2 pupil is permitted to take the treatment, but is referred to the family physician. If there is tachycardia, the treatment is refused. If there is tremor, even with very slight enlargement, and the tremor is not due to medico-phobia as occasionally occurs, the treatment is refused and the pupil is referred to the family physician.

All those who apply and have none of the cardinal signs of goiter are permitted to take the treatment. Although a considerable number are treated each year, we have no knowledge of any untoward effects coming from the treatment. We are encouraged to believe that the treatment carried on in this way is devoid of harm.

There are no records of the first few years' treatment, but the record of the past 9 years is as follows:

Year	Number of Pupils	Thyroid 1	Thyroid 2	Number Treated
1925-6	2219	344	145	1088
1926-7	2222	595	170	992
1927-8	2385	494	118	1320
1928-9	2477	640	104	1442
1929-30	2504	557	70	1505
1930-31	2633	481	35	1551
1931-32	2630	385	25	1595
1932-33	2659	440	38	1884
1933-34	2678	348	37	1719

Although these figures do not show a very marked reduction in Thyroid 1 nor a sensational reduction in Thyroid 2, yet there is plenty of evidence of benefit from our efforts. We see what figures cannot portray, for every year we have a large influx of pupils from the country schools to our ninth, tenth, eleventh, and twelfth grades. These pupils have not had the benefit of this treatment, and a large percentage of both grades of enlarged thyroid occur among them, whereas the pupils who have taken the treatment year after year do not show this condition.

If there was sufficient clerical help to delve more thoroughly into the details of the records, comparing the treated with the untreated, figures could be given which would be much more dramatic and convincing.

This treatment can not be carried out in fourth-class districts where the school physician contacts the pupils once each year or once in

2 years. In first-, second-, and third-class school districts, however, particularly in schools located in the so-called goiter belts, the institution of preventive goiter treatment should result in a great diminution in the number of persons who come to operation for toxic goiter or Graves' disease.

922 Dorey Street.

A REVIEW

The following is a review which appeared in the *Journal of the American Medical Association*, Oct. 27, 1934:

Summary of Pennsylvania's Poor Relief Laws Affecting Care of Indigent Sick. A Digest of Laws and Practices with Supplements Discussing the Pennsylvania Plan for Emergency Medical Service to Those on Unemployment Relief and Pennsylvania's Work Relief Compensation Fund. Paper, pp. 100. Harrisburg: Medical Society of the State of Pennsylvania, 1934.

In a concise, well prepared, handy volume, The Medical Society of the State of Pennsylvania conveys to the reader facts, experiences, and suggestions pertaining to the medical phase of relief to the indigent. The booklet was prepared for distribution to county poor authorities, social workers, county medical society officers, and others interested in providing minimal adequate medical service to the indigent. It brings together, for easy reference, county reports giving the type of organization responsible for poor relief, the methods used in providing medical care, the amount paid for medical services to the indigent, and suggestions for improvement of these services. A section is devoted to a digest of the poor relief laws and practices of Pennsylvania in which important definitions and procedures are clearly set forth.

It is logical that in connection with the discussion of general poor relief some attention be given to the recent development of emergency medical service to those on unemployment relief. The Pennsylvania plan, including rules and regulations, fees and suggestions for its operation, is given in detail. An interesting and instructive table on page 94 gives for five counties separately, and for the entire state, the extent and costs of medical services and the ratio of these services to the number of relief cases. A brief discussion of medical service under Pennsylvania's Work Relief Compensation Fund indicates the interest that is being taken in the medical phase of workmen's compensation by The Medical Society of the State of Pennsylvania.

A compilation of information such as that contained in this publication is sure to assist materially in improving the general understanding on an important phase of medical practice. With the facts thus clearly set forth it should be possible more easily to effect improvements in the medical services to the indigent wherever such improvements seem indicated. A similar compilation of state poor laws and practices in other states would be of valuable assistance to those who are interested in and responsible for this work.

EDITORIALS

THE HOLIDAY SEASON

As the end of another year becomes visible and we enter into the holiday season, it is quite impossible not to become reminiscent.

Christmas! And Santa Claus! The little children begin talking of Santa Claus weeks previous to his descent of the chimneys. To witness the elation of children on Christmas morn as they discover the Christmas tree hung with gifts is a supreme joy.

There has been no sign in the streets or shops of any decline in the Christmas spirit. The custom of making gifts at this time is too deeply ingrained to be affected by temporary conditions. Material gifts are not what make Christmas Day, it is the spirit of giving. The greatest gifts often are those which cost the least in money, but the most in love and sacrifice.

The JOURNAL wishes its readers A Very Merry Christmas!

ANNUAL STATE REGISTRATION

Due notice has been sent out by the Department of Public Instruction in regard to annual registration by the State Board of Medical Education and Licensure. This registration should be completed on or about January 1 of each year. An attached card is to be returned at once with check or money order for the fee of \$1.00. Those who have retired from the practice of medicine are requested to notify the State Board of Medical Education and Licensure.

This requirement of the State Board of Medical Education and Licensure should be given your immediate attention.

STATE SOCIETY MENTAL HYGIENE PROGRAM

The great stress laid on the relation of the physician to the mental health needs of the community by the American Medical Association, the American Psychiatric Association, and the National Committee for Mental Hygiene is bearing fruit in modern medicine as represented by the state and county societies. It is very gratifying to note in reviews of the state journals the interest manifested by the state and county societies.

The Medical Society of the State of Pennsylvania, a pioneer in this field, through its offi-

cers, its JOURNAL, its Mental Hygiene Committee, and its component societies, the mental hospitals, schools, and institutions have in the past brought to the physician some important material in dealing with community mental health problems.

The program of the Mental Hygiene Committee of the State Society for the ensuing year continues to bring before the medical profession subjects dealing with mental health issues, which should be extremely helpful to the general practitioner and warrants the coöperation of the state and county societies.

The program for 1934-1935 is as follows:

1. Support constructive legislation of the Bureau of Mental Health and the Public Charities Association dealing with mental health issues.

2. Request the county societies to set aside one program for mental health subjects during the year. The superintendents of the mental hospitals, schools, and institutions have assured the committee that they will be glad to coöperate with the county societies either in contributing to the programs or holding meetings at their respective institutions. The programs for such meetings should stress the physician's rôle in preventive mental medicine as it relates to the child's mental and physical needs in health, disease, and convalescence.

3. Request the mental hygiene committees of the county societies to contribute to their society's public relations program.

4. Request the Committee on Scientific Work to arrange for one paper dealing with mental health at the next Annual Session at Harrisburg.

5. The editor of the JOURNAL reassures us of his full coöperation in the matter of editorial space.

HOWARD FORDE HANSELL, A.M., M.D.

Dr. Howard Forde Hansell, of Philadelphia, died at his apartment in the Warwick Hotel, November 5, 1934, aged 79. He had a few days previously returned to his home from a European trip and since his retirement from active practice has spent much of his time abroad. Last year most of his touring was in Spain.

Dr. Hansell was born in Philadelphia, October 25, 1855, a son of the late Mr. and Mrs. Barnett Hansell. He was graduated from Brown University with the degree of A.B. in 1877, and in 1880 his Alma Mater conferred upon him the degree of A.M. He was graduated from the Jefferson Medical College in 1879, following which he pursued special studies in ophthalmology in Germany returning to this country in 1881, entering into practice in Philadelphia. In

1894 he became associated with the Jefferson Medical College, and in 1904 was advanced to professor of ophthalmology to succeed Dr. George E. de Schweinitz, which professorship he retained until his retirement, when he was made emeritus professor of ophthalmology. Dr. Hansell was the third to occupy the chair of ophthalmology at Jefferson Medical College. He was formerly professor of ophthalmology at the Philadelphia Polyclinic Hospital. He was a member of the American Ophthalmological Society.

Dr. Hansell was an extensive contributor to the medical literature and was very active in the numerous societies of which he was a member previous to retirement. He is survived by his wife and a son.

WENDELL CHRISTOPHER PHILLIPS, M.D.

Dr. Wendell C. Phillips, New York City, died November 17, 1934, at Manhattan Eye and Ear Hospital. Dr. Phillips was born in Hammond, N. Y., June 9, 1857, the son of Mr. and Mrs. Samuel P. Phillips. He received his education at the Pottsdam (N. Y.) Normal School, and was graduated from that institution in 1879. He was graduated from the New York University Medical College, 1882. He was married to Miss Lucia M. Taggart of New York and Newport, R. I., who with 2 daughters survives.

He was consulting aural surgeon to the New York Post Graduate and Flushing Hospitals, and aural surgeon to the Manhattan Eye and Ear Hospital.

Dr. Phillips was a member of his county (president, 1904) and state medical (president, 1912) societies, and a fellow of the American Medical Association. He served on the Board of Trustees of the latter association from 1918 to 1925; in 1925 he was elected president-elect and in 1926 was installed as president. During his incumbency both as president-elect and president of the American Medical Association he attended meetings of The Medical Society of the State of Pennsylvania. One of the outstanding features of his administration was his devotion to the task of having the general practitioner appreciate the full and true value of periodic health examinations. He was a member of the American Laryngological, Rhinological and Otological Society (president, 1907); American Otological Society; New York Otological Society; New York Academy of Medicine; and a fellow of the American College of Surgeons. He was a founder, in 1919, of the American Federation

of Organizations for the Hard of Hearing, serving as its first president until 1929.

Dr. Phillips was a contributor to medical literature, and the author of a textbook.

JAMES CORNELIUS WILSON, A.M., M.D.

James Cornelius Wilson, physician, teacher, and author died October 28, 1934, at his residence in Philadelphia, in his 88th year.

Dr. Wilson was born in Philadelphia, March 25, 1847, a son of the late Dr. Ellwood and Hannah (Paul) Wilson. His early education was obtained at Friends' Central School, Philadelphia, and Phillips Exeter Academy. He was a graduate of Princeton University, 1867, receiving the degree of A.B., and later Princeton conferred upon him the degree of A.M. He was graduated from Jefferson Medical College in 1869, completed his medical education in Vienna and upon his return to Philadelphia became assistant to the late distinguished Jacob M. Da Costa, who at that time was professor of medicine at Jefferson Medical College. In 1891 Dr. Wilson succeeded Dr. Da Costa to the chair. At the time of his death he was emeritus professor of the practice of medicine and clinical medicine at Jefferson Medical College.

A statement has been made that in October, 1877, Dr. Wilson was injured on the Belvidere Division of the Pennsylvania Railroad; every other person in the car in which he was riding was killed.

He was married to Miss Adele Beatrice Groscholz in 1882.

He was attending physician, Philadelphia Hospital, 1876 to 1890; made emeritus physician to the Pennsylvania Hospital in 1911; medical director, Jefferson Medical College Hospital 1894-1896; appointed physician-in-chief, Lankenau Hospital, 1898 (now emeritus); consulting physician, Philadelphia Lying-In Charity Hospital, Rush Hospital for Consumptives, Jewish Hospital, and Bryn Mawr (Pa.) Hospital. Served as president of the following societies: Philadelphia County Medical Society 1895-1896, Academy of Medicine 1897, Association of American Physicians 1902, American Climatological Association 1904, American Therapeutic Society 1909, College of Physicians of Philadelphia 1913-1916; and a member of the American Philosophical Society. He was a member of his county and State medical societies and a Fellow of the A. M. A. Recognition of his ability, industry, and knowledge was general as evidenced

by the number of societies of which he was elected president.

His contributions to medical literature were many, original, and important. He was the author of "The Summer and Its Diseases," 1879; a treatise on "Continued Fevers," 1881; "Fever Nursing," 1888-1898; a handbook on medical diseases; he was also editor of the American textbook of "Applied Therapeutics."

Former students at Jefferson Medical College will recall most pleasantly the very delightful personality of this distinguished gentleman of the old school, the very embodiment by precept and example of a physician who practiced and taught the art and science of medicine. The gracious manner in which he waved a hand to the student body on entering or leaving the hallway. They will recall Dr. Wilson always lectured in the upper lecture room of the old college building on Tenth Street. They will recall the old wooden, revolving table that graced the upper amphitheater, due tribute of which was paid to it by the late John Chalmers Da Costa in "Facts Concerning the Old Operating Table," which appears in "Papers and Speeches" of this distinguished author. His former students will recall too the loyalty and devotion of his 2 chiefs of clinics, the late Drs. Julius L. Salinger and Thomas G. Ashton, both of whom preceded Dr. Wilson in death. Those were the days when the professors of the practice of medicine devoted 2 hours of didactic lectures a week for 6 weeks to the subject of typhoid fever.

His long list of medical attainments is no measure of the respect and affection in which he was held by the students and friends, all of whom profited by his knowledge and instruction. His private and consulting practice was large, and he was accepted by the medical profession and his patients as the last authority. His repute was international.

Dr. Wilson is survived by his widow, 2 unmarried daughters, and a brother, Dr. W. Reynolds Wilson, of Villanova, Pa.

ANALYSIS OF CANCER WORK

Dr. E. H. Risley, Waterville, Me., submits a report of cancer work in 4 Kennebec County, Maine, hospitals, for a 2-year period. In an article covering this subject in the *Maine Medical Journal*, June, 1934, he states it has been considered for some time by those most interested in the cancer problem in that state that an effort should soon be made in Maine to put on a "cured cancer" campaign similar to that so effectively done in Massachusetts last year

by the state committee, and also by the American College of Surgeons at Chicago. The death rate could be lowered at least 33 per cent if all cases could be diagnosed and treated at the time first symptoms appeared.

The question may well be asked, however, is the physician really interested in cancer? Is he satisfied with present results? Is he making any progress against this disease? Does not the general practitioner, in the vast majority of cases, if confronted with malignancy, look upon it as practically hopeless and really make very little effort to do all that could be done for the cancer patient? In other words, he has, through long habit, and perhaps bitter experience, assumed a permanently pessimistic rather than a sometimes hopeful attitude regarding the cancer problem. The avowed reason for the institution of these cured cancer symposia was to offset this pessimistic attitude as forcibly as possible by bringing out the hopeful side and demonstrating by the impressive figures that cancer can be cured if properly handled.

For these reasons there is a general consensus of opinion, among those most interested in the cancer problem, that, at the present, the physician needs even more intensive education regarding malignancy than the laity.

This analysis shows up rather plainly the following facts: Cancer records are in many cases poor, and far too meager. The matter of a cancer family history is rarely recorded, and descriptions of the actual lesion, both before and at operation, are so meager as to be practically worthless, in most cases, for adequate record purposes; too few biopsies for diagnosis are done; attempts at grading are practically nil. The number of specimens sent to the pathologist is far too small and the pathologic report of "carcinoma" or "malignancy" is totally inadequate for scientific purposes. If we cannot get a report of "adeno" or "scirrhous" or "colloid" or some accurately descriptive term as against the single word "carcinoma" or "malignant," we might as well revert to the old lay term of "tumor," as far as the scientific or prognostic value is concerned. There is an almost total absence of follow-up service. This is undoubtedly caused by lack of funds for social service. It is believed that the need could be met by the individual surgeon with very little cost or labor if systematically planned. There is a noticeable lack of the use of preoperative diagnostic roentgen rays of the chest in cases of breast tumors, and of postoperative therapeutic radiation also. Practically nothing is being done for the inoperable or hopeless case. It is believed that here is a field which should

be developed intensively, and that there is a real duty to these cases, which many have so far neglected.

The following recommendations are made:

1. Endeavor to overcome the often fatal period of delay on the part of the patient.
2. Protect the patient and ourselves by asking for consultation in every case in which the physician is not able to make a positive diagnosis at the first examination, unless he intends to resort to biopsy.
3. Be alert to treat early all precancerous lesions, especially those of the cervix, and preach frequent examinations for the discovery of such conditions to our patients.
4. Advise more frequent explanatory laparotomies in doubtful or suspicious cases of gastro-intestinal disorders.
5. Be more particular in the histories and records of cancer cases.
6. At operation aim at an accurate description of the gross pathology found, always obtaining a specimen for pathologic examination if possible, even in the inoperable case. This can usually be rapidly and safely done with the radio knife or Bove loop.
7. Radical surgery should be done.
8. Accompany the specimen sent to the pathologist with brief but accurate clinical data.
9. Initiate and employ continuously some systemic plan of follow-up for all cases.
10. Use more frequently radio therapy post-operatively, and, lastly, give the best efforts for the relief of inoperable cases.

PHYSICIANS' COOPERATION REQUESTED IN REPORTING VITAL STATISTICS

The extensive shifting of population during recent years and the tendency toward hospital care associated with obstetrical practice, as well as hospitalization of the seriously sick, have rendered our birth and death rates less meaningful.

By allocating births to the residence of the mother, and deaths to the residence of the deceased, it is possible to make a more accurate tabulation for statistical purposes.

This plan has been heartily endorsed by all the state registrars and approved by the Committee on Residence Allocation of the American Public Health Association.

Proper respect for this new undertaking and its observance will be a distinct forward step in the compilation of vital statistics.

The explanatory letter regarding this new plan of allocation was sent to all physicians in the state by Dr. Theodore B. Appel, Secretary of Health. It is reproduced here, however, to call your attention again to this important matter.

To All Physicians:

In coöperation with the United States Bureau of the Census, the Pennsylvania Department of Health will

undertake the allocation of births and deaths to the place of residence, deaths to the residence of the deceased and births to the residence of the mother.

In order to do this, we must have a clear statement of the residence on the birth or death certificate. Undertakers have been urged to be very particular in regard to deaths and we wish to urge that physicians attending births state clearly the place of residence of the mother.

By allocating births to the residence, it is hoped the present records will be of much greater value than heretofore.

You will understand that this does not in any sense change the law, which requires all births and deaths to be reported to the local registrar of the district in which they occur.

This is the most progressive step that has been taken in the preparation of vital statistics in a generation. This Department and the United States Bureau of the Census urge your coöperation and help.

Yours very truly,

THEODORE B. APPEL, M.D.,
*Special Agent, U. S. Bureau of the Census,
Secretary, Pennsylvania Department of Health.*

N. B. Residence is defined as "usual place of abode." It is the place which usually would be named in answer to the question "where do you live?" or the place which the person regards as "home." As a rule, it is the place where the person usually sleeps.

SATURDAY MORNING CLINICS AT THE PHILADELPHIA GENERAL HOSPITAL JANUARY, 1935

January 5

- 11:00 a.m.-12:00 m., Surgical Clinic—Pancreatitis, M. P. Warmuth.
12:00-1:00 p.m., Medical Clinic—Nephritis, William Egbert Robertson.

RUSSELL S. BOLES, *Chairman.*

January 12

CLINIC ON APPENDICITIS—SPREADING PERITONITIS— PELVIC PERITONITIS

- 11:00 a.m.-11:15 a.m., The Significance of the Blood Count, W. J. Crocker.
11:15 a.m.-11:45 a.m., Gynecological Aspects, Philip F. Williams.
11:45 a.m.-12:15 p.m., Medical Aspects, Truman G. Schnabel.
12:15 p.m.-1:00 p.m., Surgical Aspects, John O. Bower.
J. W. McCONNELL, *Chairman.*

January 19

- 11:00 a.m.-12:00 m., Pneumonia in Children, John W. Holmes.
12:00 m.-1:00 p.m., Neuro-Psychiatric Clinic—Manic Depressive Insanity, Charles W. Burr.
B. P. WIDMANN, *Chairman.*

January 26

- 11:00 a.m.-12:00 m., Hypertension, Leonard G. Rown-tree.
12:00 m.-1:00 p.m., Medical Clinic, Alfred Stengel.
RUSSELL S. BOLES, *Chairman.*

STATE SOCIETY COMMITTEE ON CONSERVATION OF VISION

The Committee on Conservation of Vision, through its chairman, Samuel Horton Brown of Philadelphia, submits the following program, the purpose of which is to cover the borderline of ophthalmology and community education. It is designed to supplant the obnoxious publicity and advertising which masquerades as education in matters pertaining to vision and its conservation.

1. Consideration of specious advertising by opticians, optometrists, and manufacturing optical houses.

2. Coöperation of the Committee on Conservation of Vision and the National Society for the Prevention of Blindness. It is essential that these organizations have a local unit to represent them on account of the value of local personality contacts.

(a) Intensive work in stimulating closer attention to the examination and treatment of school children.

(b) Calling attention to the fact that many children apply for working certificates who are rejected on account of defective vision. Eventually these children will become adults and will be rejected again by the firms to which they apply for employment. The possibility of reducing the incidence of these cases is obvious.

(c) The furtherance of the sight-saving classes as an aid to the educational program as well as to the benefit of the participants.

3. Educational Program:

(a) Physicians—Community features of ophthalmia neonatorum and interstitial keratitis. Prenatal care.

(b) Popular lectures to welfare groups, maternity centers, parent-teacher organizations, women's clubs, etc.

(c) Nurses—At present the superintendent of nursing education in each hospital selects the instructors for her classes, regardless of the physicians on the staffs of the hospitals, often using lay teachers whose views are not always the same as the ophthalmologists connected with the hospitals.

4. Supervision and sponsorship of ophthalmic programs in connection with the Society.

5. Glaucoma.

MATERNAL MORTALITY TRUTHS

The Bureau of Census has calculated the maternal mortality rates of Pennsylvania as 6.5 per 1000 live births in 1931, and 6.1 per 1000 in 1932. In 1933 there were 874 maternal deaths, at a ratio of 5.3 per 1000 total births, giving approximately one maternal death for every 187 deliveries. Of these 874 deaths 315 were attributed to puerperal septicemia. The first 3 months of 1934 show a rise in puerperal septicemia deaths—a total of 109 as against 80 and 95 in 1933 and 1932 respectively.

Comparable figures for the registration area of the United States for 1931 and 1932 give 6.6 and 6.3 per 1000 live births respectively. Even a most casual observer notes that during the past 20 years there was no appreciable decline in maternal mortality.

The Philadelphia County Medical Society survey on maternal mortality in Philadelphia for 1931, 1932, and 1933 shows a "practically stationary maternal mortality rate. . . . In the past decade the maternal mortality

rate has dropped only from 8 per 1000 live births in 1921 to 6.6 in 1932, although the birth rate fell from 23.8 per 1000 population to 16.22."

During the decade ending in 1933 there was a decrease of live births in Pennsylvania of approximately 10 per cent. Of those delivered in 1933, approximately 96 per cent were cared for by physicians, the midwives delivering only 1 per cent.

The maternal mortality has dropped only in proportion to the relative drop in total number of cases. The mortality percentage of the whole remains practically the same although there is an apparent lowering of mortality figures.

If a social-economic balance is to be maintained, it is obligatory that extraordinary means be undertaken to reduce maternal mortality. With a drop in total number of cases and a continued maternal mortality ratio, it is evident that the race suffers as a result.

Where is the fault? Where place the blame? What means are available for correction?

The medical profession must look this problem straight in the face. There are 2 immediately concerned persons—the patient and the physician.

The profession must fully realize its responsibilities, for the public is largely ignorant or improperly advised on the problem. We must take the initiative, be candid with ourselves, and reduce to an absolute minimum this enormous toll of life. Let us manage our own clearance house.

The problem of reducing maternal mortality resolves itself into 2 phases—presenting facts to the physician, and advising and educating the laity.

The Commission on Maternal Welfare presents these facts for your information and will try to be of service to the profession by bringing to light other informative matter which is intended to make all physicians cognizant of the maternal death rate, which is just as big a problem in the rural as it is in the urban districts. Isolated cases appear unimportant, but collective compilations disrupt this casual attitude and should arouse us from a state of professional lethargy to decisive, determined action for correction of the condition.

THE COMMISSION ON MATERNAL WELFARE,
THE MEDICAL SOCIETY OF THE
STATE OF PENNSYLVANIA.

RESOLUTIONS IN REGARD TO RADIUM AND ROENTGEN RAY

The following resolutions were passed by the American Radium Society at the Annual Session in Cleveland, June 12, 1934. They have also been approved by the Board of Chancellors of the American College of Radiology and the Section of Radiology of the American Medical Association.

Sufficient Radium and Roentgen Ray Must Be Used

WHEREAS, It has been proven that radium and roentgen rays, if used properly and in sufficient quantity, are efficient in the treatment of cancer in certain locations, and

WHEREAS, There is a general fear in the public mind of roentgen-ray or radium burns, which prevents competent radiologists from using sufficient radium or roentgen ray to produce the best results; therefore, be it

Resolved, That we as radiologists recognize that, in the treatment of malignant disease, it is often necessary to carry the treatment to the extent of producing a violent reaction in the surrounding tissues, which may cause

the skin to peel and blisters to form, in order to give sufficient treatment to overcome the malignant disease. We believe, therefore, that it is justifiable to produce a second-degree radiodermatitis when necessary.

The Indiscriminate Use and Rental of Radium

WHEREAS, It is now recognized that radium has been demonstrated to be of definite value in the treatment of disease, and

WHEREAS, Some states and many communities in the country have little or no radium available, and

WHEREAS, Funds are not always available for the purchase of suitable preparations of radium for use by those physicians who are qualified in radium therapy, and

WHEREAS, We recognize that radium is an agent quite as potent for doing harm as for doing good if used without sufficient skill or training, and

WHEREAS, We hope to protect the uninformed public from serious and irreparable injury from improper and insufficient radium treatment; therefore, be it

Resolved, That we consider it improper, unethical, and detrimental to the science of radiology and to the good of suffering humanity for commercial laboratories to attempt to give advice or directions as to the use of radium in the case of a patient whom the person giving that advice has not had the opportunity to examine. In other words, it is just as difficult to give such advice and directions as it would be for a surgeon to give directions for the use of rented surgical instruments so that an untrained physician might attempt an operation. Various commercial companies advertise both in the journals and through the mails medical advice for the purpose of making sales or renting radium or radon. This places those corporations in the field of practicing medicine; further be it

Resolved, That the same criticism be applied to institutions which rent or furnish their radium to members of their staffs or to others unskilled in radium application; further be it

Resolved, That the same criticism applies to many individual owners of radium; further be it

Resolved, That we regard the approval of the National Board of Radiological Examiners as the minimum standard for those assuming the responsibility for using radium. We recommend as wide publicity of this board's existence and approval as is possible to the public, consistent with ethical practices, as the most effective safeguard which can be afforded them; further be it

Resolved, That we recommend the refusal of advertising matter in national and state journals if the companies concerned are advertising a medical consulting service or are advertising such service through the mails in connection with their sale or rental of radium; further be it

Resolved, That we disapprove of any doctor's acting as a consultant to a commercial company carrying on such a campaign of public or private advertising and that we consider such an association sufficient grounds to warrant disbarment from the approval of the National Board of Radiological Examiners; further be it

Resolved, That we recognize the ethical commercial company as a necessity. It is the advertised consulting service that is at fault. It is recognized that such restrictions on the advertising of a medical service will in no way hamper properly qualified radium therapists in obtaining adequate supplies of radium or radon for the purposes in which they are qualified to use it; and further be it

Resolved, That we approve an informal medical consultant for the guidance of those commercial companies who refrain from advertising such professional service, either publicly or privately, and that in such case their informal consultant be one approved by the National Board of Radiological Examiners.

"DOCTORS, DOLLARS AND DISEASE"— RADIO EDUCATION OR PROPAGANDA

In 1929 a series of meetings called by the American Association for Adult Education resulted in the formation of a body known as the National Advisory Council on Radio in Education, Inc. Its general purpose is said to be to "further the development of the art of radio broadcasting in American Education." Recently, Congress enacted some legislation entitled "The Federal Communications Commission Act," which automatically abolished the Federal Radio Commission. This act also makes it mandatory on the new commission "to study the proposal that Congress by statute allocate fixed percentages of radio broadcasting facilities to particular types or kinds of nonprofit radio programs" and to report to Congress by Feb. 1, 1935.

The National Advisory Council on Radio in Education, Inc., is exceedingly interested in this problem, because it has made education of the public over the radio its particular province since the time of its organization. The Council wants more time on the air for education. In a recently issued circular, the director says "The council is an organization independent of faction, nonpartisan in its procedure, disinterested as to personnel and noncommercial in operation." Notwithstanding these assertions, the medical profession is now confronted with the promotion by the National Advisory Council on Radio in Education, Inc., of a series of broadcasts under the title "Doctors, Dollars and Disease," said to be presented by the Public Health Committee of the National Advisory Council on Radio in Education, Inc. These programs are offered every Monday evening over WABC, Columbia network, extending from coast to coast, at 7:45 Pacific time, 8:45 Mountain time, 9:45 Central time, and 10:45 Eastern time.

Let us then view the nature of the organization of the Public Health Committee which prepared the program and the nature of the program itself to see to what extent the National Advisory Council on Radio in Education, Inc., has fulfilled its claims of being independent of faction and nonpartisan in procedure. The Public Health Committee includes as its chairman William Trufant Foster. This is the same Foster, an economist and not a physician, who attacked organized medicine bitterly at a conference held in Philadelphia last February, fully reported in THE JOURNAL, March 3, page 701. Associated with Mr. Foster on this committee are the following physicians: Ray Lyman Wilbur, chairman of the Committee on the Costs of Medical Care and signer of its majority report; Thomas Parran, Jr., health officer of the State of New York, committed in repeated addresses to compulsory health insurance and measures leading to the socialization of medicine; Haven Emerson, formerly a president of the American Public Health Association and a signer of the majority report. Included with these four are Alice Hamilton, a distinguished investigator in industrial diseases, whose writings indicate nevertheless that her pity for the sad fate of the majority of mankind overbalances her scientific judgment in matters of social

control, and, last of all, Dr. Hugh S. Cumming, surgeon general of the United States Public Health Service. It will be obvious to any one that this Public Health Committee of the National Advisory Council on Radio in Education, Inc., is overwhelmingly controlled by the state medicine and socialization of medicine points of view, and that it contains no definite representative of the 100,000 physicians organized as the American Medical Association.

The radio program developed under the auspices of this committee is, as might have been expected, overwhelmingly for the socialization of medical care. It contains the name of but one person who signed the minority report of the Committee on the Costs of Medical Care, and there are indications that he accepted under a misapprehension as to the nature of the program and will not appear. Those who are to discuss the future of medical care and the subject of medical economics are for the most part nonmedical men, unfamiliar with medical practice and for the most part definitely opposed in their writings to the policies of organized medicine. Representing the opposite point of view are Walter P. Bowers, editor of the *New England Journal of Medicine*, who has made that periodical largely the organ of the majority report of the Committee on the Costs of Medical Care, Thomas Parran, George H. Bigelow, Haven Emerson and Ray Lyman Wilbur, who speak as physicians on this program. These are, all of them, proponents who would change seriously the nature of medical practice. Among the laymen listed are such well known names as Edward A. Filene, Michael M. Davis, C. Rufus Rorem, Nathan Sinai, I. S. Falk, Edgar Sydenstricker and Harry H. Moore. It calls the roll of the agitators from the Committee on the Costs of Medical Care. Other speakers include Foster, Paul H. Douglas of the University of Chicago, Robert Jolly of Houston, Texas, and Livingston Farrand, president of Cornell University, the latter as an M.D., who has for long been somewhat out of touch with medical affairs.

It should be clear to any physician that this program indicates an attempt on the part of the interests represented in the majority report of the Committee on the Costs of Medical Care to further its propaganda. In developing a program of this type the National Advisory Council on Radio in Education, Inc., has been untrue to the principles on which it was established. Thereby it fails to merit support from the medical profession. Nevertheless, physicians will do well to be aware of the matter and to use such influence as they may possess with the radio stations that carry such material to bring about a realization of its true nature.

It might have been within the province of the National Advisory Council on Radio in Education, Inc., to develop a series of useful lectures on the prevention of disease and on the maintenance of health. It might have used some of the time, which apparently it is able to get without charge from the broadcasting chains, for the enlightenment of the public on many of the scientific fallacies promoted by commercial interests. It has, however, failed to avail itself of these opportunities, devoting itself and its time instead to what constitutes essentially an undermining of the medical profession of this country. It would be interesting to know the motives that animated the executive officers of the National Advisory Council on Radio in Education, Inc., to lend themselves to this propaganda.—Editorial, page 1310, *J. A. M. A.*, Oct. 27, 1934.

STATE MEDICAL PROSECUTIONS

The following constitutes a record of the activities of the Pennsylvania Bureau of Law Enforcement, from Jan. 1 to Oct. 1, 1934. All of the defendants were charged with practicing medicine without a license; none of them is licensed to practice medicine or any branch of the healing art.

Defendant	Address	Verdict
William J. Ziegler	Clarks Summit	Held for court
John Stump	Dallastown	Not guilty
Walter J. Shipe	York	Held for court
John Edward	Allegheny County	True bill
E. E. Mason	Carnegie	True bill
Albert Neff	Philadelphia	True bill
Emma Amonson	Norristown	Held for court
Mrs. W. M. Rhone	Mount Union	Fined \$10 and costs
A. J. Knauss	Pottsville	Held for court
V. M. Domke	Philadelphia	Six months' imprisonment
H. C. Claycomb	Bedford	Held for court
John K. Rastikis	Greencastle	Fined \$200 and costs
Harvey O. Ulrich	Allentown	To refund patient \$45; fined \$100 and costs; 30 days' imprisonment
G. A. Statti	McKees Rocks	Fined \$50 and costs
A. M. Bailey	Philadelphia	Fined \$100 and costs
Louis Masser	Pittsburgh	Not guilty
Preston Hughes	Pittsburgh	Not guilty
Michael George	Portage	Prosecution deferred
Edna M. Brown	West Pittston	Under advisement by Medical Board
William Thomas	Roaring Springs	To pay costs
Samuel L'Amereaux	Stroudsburg	Held for court
Zollie Bracy	Philadelphia	Four months' imprisonment
Wm. H. Semmelrock	Somerset	Sentence deferred
J. F. English	Shamokin	Fined \$100 and costs
Thomas Sioui	Lewistown	Held for court
Wray Hughes Hopkins	Ardmore	Held for court

COMMENTS AND EXCERPTS

Science and Research

Science Finds Babies Alike, according to the *New York Times*, Oct. 14, 1934. The baby who earliest coördinates his eye and his hand will not necessarily grow into the child who earliest develops a sense of memory or a comprehension of language reports Dr. Harold E. Jones, professor of psychology and director of the Institute of Child Welfare at the University of California. Dr. Jones made this announcement after he had undertaken the first detailed study of a large group of young children in an effort to determine the processes of mental development. The survey showed that, after the sixth month, a rapid development of discrimination, manipulatory ability, vocalization, coördination of eye and hand is noticeable. During the first year, the development of the child's mental abilities is regular, but after age 3 has been reached, individual differentials become more apparent.

To quote from *Science News Letter*: Dr. Kahn's studies showed that at the time an animal is immunized its body tissues acquire a new property; namely, the capacity to detect and to anchor or combine with the immunizing substance whenever they come in contact with it. The protective nature of this tissue change is evident, since by combining with the substance against which the animal is immune, the tissues prevent its diffusion or spread throughout the body. In the case of infections, this capacity of the tissues may determine whether the germs will spread throughout the body and produce widespread injury or will be localized in the tissue in which they have gained entrance.

According to Dr. Kahn, the skin possesses a combining power for the immunizing substance more than 10 times greater than muscle tissue, brain tissue, or blood.

The annual \$1000 prize for a notable paper delivered

before the American Association for the Advancement of Science was awarded to Dr. Kahn.

Col. W. P. MacArthur, professor of tropical medicine at the Royal Army Medical College and consulting physician to the British Army, presented convincing proof to the Royal Society of Tropical Medicine, London, that many cases diagnosed as true epilepsy are actual cases of infestation with tapeworm larvae. The epileptic seizures are due to invasion of the brain by the eggs of the tapeworm which form small cystlike masses, and to their degeneration after the death of the organism. Col. MacArthur has found so many as 200 of these cystlike masses—cysticerci—in some brains. The victims of these cysticerci have no symptoms to distinguish them from victims of ordinary epilepsy.

As a result of a survey directed by Dr. Raymond Pearl, professor of biology, Johns Hopkins University School of Hygiene and Public Health, and receiving financial aid from the Milbank Memorial Fund, Dr. Pearl concludes that the national policy of prohibiting the free dissemination of accurate scientific information about birth control methods is adding definitely and measurably to the difficulty of the problems of poverty and unemployment with which our children and grandchildren will have to deal.

"The investigation indicates that the innate natural fertility of married couples is probably substantially similar in all economic classes, and in the white and colored races," Dr. Pearl states. "The apparent differential fertility observed between social and economic classes, and between the races, appears on the basis of the more refined and accurate computations of this investigation to be due almost wholly to those artificial alterations of natural innate biological fertility which are collectively called birth control, at least in the sample of American women so far studied."

Dr. George R. Kirby, presiding officer at the recent meeting of the American Psychiatric Association, states that emotional disturbances may be the cause of such physical diseases as stomach ulcers, goiter, and diabetes. Not merely the symptoms, he claims, but actual changes in the tissues of various organs occur. As medical leaders stress prevention of diseases or failing that, their prompt diagnosis in the early stages when there is most hope for cure, so psychiatric leaders are urging prevention of the diseases, both mental and physical, that arise from purely emotional factors. Psychiatrists hope that physicians in the future will not only examine a patient by determining his pulse, blood pressure, and taking roentgenograms but will analyze or examine his personality and his emotional make-up as well in order to find the real cause of his ailment and how to treat it.

Forbidden Stopping or Parking

It is illegal for motorists to stop or park in a forbidden area despite the fact that the driver remains seated in the car, according to a recent decision of Judge George G. Gorson in a Willow Grove, Pa., case.—*The Car*.

Radiator Caps

The Motor and Equipment Manufacturers Association recently issued a bulletin warning that authorities are criticizing radiator cap ornaments, especially those with sharp points, that project in front of the radiator. The bulletin explained that the increasing record of painful injuries and deaths from these ornaments might result in prohibition of them.—*The Car*.

Survey of the A. A. A.

Five out of 6 pedestrians injured in motor accidents are struck before they reach the middle of the street they are crossing, clearly indicating that the curb is the danger line, a national survey by the American Automobile Association revealed recently. Too many pedestrians fail to look to the left for approaching traffic before stepping into the roadway. In many cases automobiles parked close to the corner prevent oncoming cars from being seen until the pedestrian is well out from the curb.—*The Car*.

MEDICAL ECONOMICS

Organized Medicine More Favorable to Group Plans.—The American College of Surgeons at its Boston conference repeated and elaborated on its stand in favor of the idea of group hospitalization as a means of helping people of moderate means to meet the cost of needed hospital care. About the same time Dr. Morris Fishbein, editor of the *Journal of the American Medical Association* and one of the most forceful and effective representatives of the A. M. A. before the public, asserted in a newspaper interview that the A. M. A. is in favor of a plan of payment for hospital care that coincided with the ten principles laid down by the American Medical Association at its 1934 convention in Cleveland.

The American Hospital Association, the first professional body to endorse the idea of group hospitalization, made it plain in its official statement on this subject that the usual relations between patient and physician must not be disturbed by any group plan of paying for hospital care, that such plans must be noncommercial and must protect the interests of the public and the medical profession as well as the hospitals.

It appears that organized medicine is gradually overcoming its fears that group hospitalization is something that is inimical to the interest of patients and something that compels them to accept the services of a physician selected by some one other than the sick person, and it may not be too much to expect that organized medicine on this side of the Atlantic will do as has the British Medical Association—enter wholeheartedly with the public and hospitals into joint leadership and guidance of some plan of group payment for hospital care.

The article describing some of the features which have made for the success of the English contributory scheme of paying for hospital bills (and incidentally this article was corrected and approved by radio by Mr. Lamb) emphasizes the fact that the active participation in the planning of the English schemes by the British Medical Association was the first essential in the success these plans have achieved. The B. M. A. set up a schedule of wages for single and married persons, within which limits the doctors agreed to give free medical service, and the hospitals carrying on the contributory schemes have rigidly adhered to the income limits. Moreover there has been a start made by some of the schemes toward some remuneration for the physicians caring for these poor patients.

The latest developments as regards the interest and favorable attitude of organized medicine toward group hospitalization plans must be most gratifying to the American Hospital Association and to those hospitals which have pioneered in this activity. In those communities in which group hospitalization is being considered, the warning can not be uttered too strongly that co-

operation of the medical men can not be obtained unless the principles laid down by the various professional groups are rigidly followed. Justice to the patient, to the physician, and to the hospital must be assured, and among the factors insuring justice are noninterference with the personal relationship between patient and physician, and the drawing up of a plan that will insure the best type of care to each patient on a wholly noncommercial basis. All of this, however, does not exclude the employment of capable directors and salesmen, for there is a business side to group hospitalization as well as a professional aspect, and the conduct of business in a successful manner requires the use of trained personnel and of accepted business practices.—Editorial, *Hospital Management*, Nov. 15, 1934.

Can United States Hospitals Use English Contributor Scheme?—Editor Matthew O. Foley discusses this problem in *Hospital Management*, Nov. 15, 1934. This question is being asked in more than a dozen cities in the 2 countries following the appearance in the different communities of Sydney Lamb, general secretary of the Merseyside Hospitals Council, Liverpool, and organizer and manager of one of the most successful of the English plans. Mr. Lamb returned to England after an appearance on the program of the American Hospital Association in Philadelphia last September.

The most important factor in the success of the Merseyside and other English contributory schemes, is that they have the wholehearted endorsement and coöperation of the British Medical Association. This endorsement has resulted from the fact that the British Medical Association itself set up salary and wage limits, within which individuals receiving hospitalization under the contributory plan also would receive free medical attention from members of the B. M. A. In the United States, especially, a stumbling block in the way of the establishment of "group hospital insurance," which is a form of the contributory scheme, has been the hostile attitude of the medical profession. So the English contributory schemes, by following strictly the dictates of the British Medical Association as to wage limits within which hospital beneficiaries also would receive free medical care, have held the good will of British physicians.

The second most important factor, according to Mr. Lamb, in the success of the English schemes is the splendid coöperation of employers. As Mr. Lamb says of his own Merseyside scheme:

It is the employer who gives facilities for hospital organizers to address meetings of employees to accept the scheme in the first place; it is the employer who undertakes to enroll each employee and to secure an authority form signed by each employee; it is the employer who collects the hospital contributions every week or month from his employee's wages; it is the employer who adds one-third to his employees' contributions; it is the employer who undertakes to pay over the contributions regularly and punctually each month or quarter to the central office of the contributory fund; it is the employer who undertakes the responsibility of issuing the hospital vouchers as required by his employees.

The cost of operating the Merseyside scheme, from the standpoint of administration and publicity, is 8.8 per cent of the income of the scheme. However, this high percentage of operating cost (10 leading English schemes range from 2.1 to 7.2 per cent and average 6 per cent) undoubtedly is influenced by the fact that the "penny in the pound," which is the proportion of wages Merseyside workers contribute, is not actually sound, as Mr. Lamb admits. Naturally, to obtain a given total sum, more contributions and more clerical work is involved if the individual contributions are but a penny than if

they are 2 pence or 3 pence a week, as is the case in other schemes.

The third important factor in the success of the English schemes is the relatively large amount (compared to standards on this side) of the income which is devoted to promotion and publicity. Mr. Lamb has said that as high as 40 per cent of the administration and operating expenses of the Merseyside scheme go for publicity and promotion.

To answer affirmatively the question, "Can hospitals of the United States and Canada adapt or make use of the ideas of English hospital contributory schemes?" one first must have coöperation from organized medicine similar to that offered by the British Medical Association to English hospitals, then similar coöperation from employers, and finally American hospitals especially must educate themselves to appropriate a great deal more for promotion and publicity than they have ever budgeted before.

Before contributory schemes were generally introduced only 4 per cent of voluntary hospital patients paid for their care, and 50 per cent of all voluntary hospital service was free. Today, however, the private patients have increased to 5 per cent (and the number is going up), totally free work has dropped to 20 per cent, and 75 per cent of the voluntary hospital patients contribute about 70 per cent of the cost of their hospital care.

Not only has there been this improvement in hospital finances, but the contributory schemes have won active interest in the various hospitals among thousands of employees.

Besides actual hospital service (rendered to 27,743 members and dependents in 1933), the Merseyside Hospital Council, through its scheme, has made possible for its members: Outpatient service; ambulance service; indicated extra nourishment for discharged patients in their homes during convalescence; home visits of social workers; home nursing; and surgical appliances, hospital furniture, crutches, etc., as needed.

The Council also has developed a corps of volunteer motorists who are ready with their cars at any time of night to transport needy relatives of dangerously ill patients to the hospital and to carry blood donors to institutions.

The English contributory scheme has answered the requirements of maintenance, but the problem of capital expenditures for new buildings is something that still must be worked out.

The income limits urged by the British Medical Association and which have been adopted by Merseyside and other contributory schemes are: "Unmarried persons, no dependents, \$20 a week; married couples, no dependents, \$25 a week; married couples with dependents, \$30 a week. Employees in these classifications are accepted as members of the Merseyside plan and receive free medical service from physicians.

At the 1934 annual meeting of the British Medical Association, the doctors took cognizance of the "middle class" by setting up new limits for clerks and other "white collar" workers. These limits are: Married men earning \$2500 a year and unmarried men earning \$1750 a year. Individuals in these limits belonging to a contributory scheme are entitled to 3 weeks' hospital care for which the fund pays the hospital \$25 a week, and the fees to the doctor average \$80. These middle-class workers pay into the fund \$11 a year.

Mr. Lamb invariably has stated his belief that the doctors ought to be recompensed for their services, and pointed out that the individuals who are eligible to ob-

tain hospital care under a contributory scheme are of themselves unable to pay the doctor anything or to pay for hospitalization. However, last year the Merseyside plan set aside a fund of \$30,000 for the voluntary hospitals' medical staffs. A gradual increase in the allotment to the medical staffs is contemplated.

Another interesting feature of the Merseyside scheme which contributes to lowering its operating cost is the method of handling individual contributors. There are some 40,000 of these enrolled in the Merseyside scheme, and the work of handling their contributions, clerical work, *etc.*, is about as great a task as the supervision of the 240,000 workers who contribute through some 6500 employers. There are 480 shops, small stores, *etc.*, whose owners gratuitously act as agents of the fund. They collect the contributions from the individuals in their area, handle the details of recording payments, *etc.*, and turn over to agents of the fund as they make regular calls the amounts they thus collect.

If an adaptation of the English contributory schemes is to be made by hospitals on this side, it is likely that the features mentioned in these comments must be incorporated in some degree in order to gain the necessary support of physicians and employers and also to reduce the cost of operating the scheme as much as possible.—*Hospital Management*, Nov. 15, 1934.

Some Dangers of Socialized Medicine.—A practical way to size up the value of socialized medicine is to look about us and see how it has worked elsewhere. Certain groups of doctors, we learn, now say that socialized medicine is coming anyway, so we might as well give up the fight against it. They argue that if all the doctors can be placed on a payroll at \$3000 a year each, they will be better off, on the whole, than now. Like many other beautiful visions of a socialistic state, this one is very rosy, but will it bear the cold, hard light of fact? Is it possible that after the machinery is all set up the doctors may find themselves in the same situation where the school teachers are at present: their pay cut to the bone, till many are living in attic rooms, cooking their own meals, patching their clothes, accepting charitable gifts from the townspeople and with the pay checks anywhere from a few months to a year behind. City and state governments everywhere are virtually insolvent, and if this pitiful fate can happen to the teachers, what would prevent it from happening to the doctors? Who would or could guarantee that \$3000 a year, or any other sum?

Would the defiling hand of politics, too, be kept off a system that would so clearly handle large sums of money and provide jobs for so many appointees? Many schemes of socialized medicine have sprung up around the country since the report of the Committee on the Costs of Medical Care turned the public thought in that direction. They often take the form of health insurance and have blossomed most prodigally in the golden State of California, a state that has been sorely afflicted by quacks of all kinds, medical and otherwise. Authorities on medical economics pointed out years ago that such schemes might easily degenerate into rackets and it now appears that that is exactly what has happened. Thousands of trusting Californians were wheedled into paying \$1 to \$5 a month to these medical and hospital organizations, only to find when the time came for medical and surgical aid that the concern had suspended business and the money was gone. Nineteen men have been indicted by the grand jury of one county, but only 3 have been located. This is partly due to the fact that the action of the grand jury came nearly a year after

the facts were known, indicating, it would seem, some sort of corrupt political influence. If the whole medical machinery of the country were in the hands of the bosses, what would the situation be?

Let us look next at Germany and its well-known Krankenkasse or health-insurance system. We find an enlightening article about it in a western medical publication by a writer who seems to know what he is talking about. Like many other schemes, its purpose is splendid, but human nature enters in to take advantage of its defects. The law provides that a worker who is certified by a physician to be too ill to work is entitled to be laid off on half pay for as long as 26 weeks. So a man who is dissatisfied or tired of his work goes to his doctor and asks to be "written sick." If the doctor refuses, he changes doctors till he finds one willing to oblige. Doctor and patient lose the old-time personal touch. They are mere cogs in the machine. The ambitious young physician, burning to make great discoveries and work miracles of healing, finally becomes a mere automaton, writing orders and reports, day after day, week after week. The crowds of patients he has to see leave him exhausted, with no time or strength for reading, much less for original work. His salary, too, is pitifully small, because the funds are eaten up by the immense overhead. As many lay workers as physicians, it seems, are on the pay roll.

The patients, too, are victims of this attempt to create health by bureaucratic machinery. The physician has to see something like 50 patients in his 2 hours of office consultation in order to make a living wage. That figures out at about 2 minutes to each patient. We all know that the German doctor is faithful, earnest, efficient, and no doubt gives his best under these terribly adverse circumstances. The aim of the system, too, is of the highest character. But "the best laid plans of mice and men gang aft a-gley." With these examples before our eyes, should we not go a bit slow before we give up the American system that is vanquishing one fell disease after another as the gods of Olympus vanquished the giants, and is prolonging the life of men on the earth like the discovery of some magic fountain of the Arabian Nights? Nations have been deceived before now by pictures of roseate schemes that only turned to the ashes of disappointment. In all our hasty national plans of change, let us not be led to plunge into some error that we can never retrieve.—*Editorial, N. Y. State J. M.*, May 1, 1934.

Resolutions Regarding Clinic Abuse.—At the meeting of the Medical Club of Eastern Delaware County (Pa.), held October 23, the subject of clinic abuse was discussed, and a motion was passed to appoint a committee of 5, given full power to act in formulating resolutions stating the attitude of the Club in this matter. Letters embodying the resolutions are to be sent to all welfare agencies in Eastern Delaware County, and to the press.

The purpose of the Resolution is not to affect the habitual clinic patient, but to try to salvage those who by reason of economic stress are at this time financially embarrassed, and might easily drift into the class of habitual clinic patients.

It is a duty to face at this time, and is in some degree an answer to the question of socialized medicine.

The dead beats, whose names appear on their credit files, will receive no consideration.

RESOLUTION

WHEREAS, We as physicians are aware that there are worthy families in need of medical attention, who are not eligible for

medical relief under the act of the Emergency Medical Relief; and

WHEREAS, We also realize that many of such families are too self-respecting to apply for services to free public clinics; and

WHEREAS, The physicians of the Medical Club of Eastern Delaware County desire to maintain the personal relationship existing between family and physician; and

WHEREAS, We desire to make known our willingness at this time, as ever in the past, to render necessary medical service for the alleviation of human suffering; be it therefore

Resolved, That medical service shall be furnished to such needy families who are ineligible for medical service as defined under the Emergency Medical Relief. Medical service to be furnished by a member of the Club living in the community who shall be the sole judge of the worthiness of the applicant.

Diphtheria and smallpox immunization are included in the service to be rendered.

Dental surgeons who are members of the Medical Club have expressed their willingness to perform emergency dental work for such families, and will cooperate in every way.

Application for services should be made to the secretary of the Medical Club, Dr. A. H. Clagett, Long Lane and Brent Road, Upper Darby.

It is desirable that calls for acute cases be left as early in the day as possible, and ambulatory patients are expected to call at the office of the physician for treatment.

The Philosophy of the Medical Fee.—A medical fee is the individual contribution of the person needing medical care to the sum paid by society as a whole, for the maintenance of a professional body trained and ready to give that care....The medical profession operating as individuals in service to individuals is the social expedient accepted by mankind as the desired instrument for the care of his bodily ills.

Every statistical analysis, whatever the source and however hostile to the current arrangement for medical service, reaches the conclusion that the medical profession as a whole is ill paid by the aggregate medical fees which sustain it. The deduction necessarily follows that *if the social underwriting of the medical profession barely suffices to sustain it, the sum so underwritten will not bear division for other services.*

Corporations composed of laymen have been organized here and there for the avowed purpose of selling medical service to the public. Various advantages of their plans of operation have been offered as selling points, but their motive has been profit. Such corporations in a number of jurisdictions have been declared unlawful on the grounds that they were practicing medicine, that a corporation could not be licensed as required by law, and that to permit the continuance of their operation would be contrary to public policy.

Lacking the legal condemnation, the nature of the medical fee would still make it an antisocial expedient, for the reason that it constitutes a parasite on the medical profession to be sustained by society without benefit to society...absorbing a part of the general fund at the cost of the vitality and productive powers of the profession.

Organized medicine should, therefore, oppose corporate practice of medicine as prejudicial to the public interests.

When a hospital offers for a fee, medical service, and retains that fee for its own income, it is engaged in corporate practice of medicine: the fee, in part, or in whole, has been diverted from society's underwriting of the medical profession, and the public, through an undernourished public service, suffers. *To lend support to an activity contrary to public interests is not ethical and, again, organized medicine should so declare.*

What a patient really desires when seeking medical attention is the face to face contact with a trusted phy-

sician, and what he really desires to pay for is the opinion and advice of that man and for nothing else.

Hospital upkeep is not a part of what a patient should be required to purchase for his fee (to the physician); the collection of fees by a hospital for the consultation services of members of the staff, whether clinical or laboratory, and the retention of such fees, in whole or in part, for the general needs of the hospital is a form of fee-splitting as obnoxious as it is subtle. *To lend support to corporate practice in this guise is unethical conduct on the part of the physician.*

The argument is advanced that says, in effect, that members of hospital staffs engaged in laboratory branches are fact-finding workers, properly employees of the hospital, and the scientific facts ascertained by them are the property of the hospital, and vendible to the patient for a fee.

The nature of the commodity for which a medical fee is paid makes the argument untenable. The patient who pays the fee has no use for scientific facts alone. What he needs is the application of scientific facts to his own problem in the light of experience, intuition and insight; an art, when institutionalized and commercialized is no longer art. The services of laboratory staff members are needed in their capacity as consultants, as practitioners of the Art of Medicine in their own fields, qualities inherent in the men themselves. *To split the patient's fee between the laboratory consultant and the general uses of the corporation, is unethical, and should be so declared by organized medicine.*—Abstract from *Medical Annals*, District of Columbia, September, 1934.

Pharmacy and the Committee on Economic Security.—In an editorial appearing in the current issue (November 19th) of the *Journal of the American Medical Association*, that efficient and wide-awake body expresses in veiled terms its conviction of the fact that socialized medicine of a sort *will be* one of the first experiments of the New Deal.

It seems to admit that any device now used in an attempt to stem this tendency of the forces in Washington would be "as futile as a damp match."

Yet the last paragraph of the editorial pronounces in no uncertain terms—and properly so—that organized medicine shall have in this whole matter, if not its way, at least its *certain* say.

"Presumably there will eventually be proposed legislation on which hearings will be held by Congress in the usual manner. Physicians should be aware of the various phases of this manner. The various bureaus and officers of the Association, including the Board of Trustees, are in intimate touch with the activities now under way and are doing their best to make certain that the point of view of organized medicine is adequately presented."

And what is organized pharmacy doing about it—assuming that something should be done to "first conserve the people's interests"—and afterwards the interests of those who find and make and mix the potent drugs used in the healing sciences?

But read the rest of the editorial to which we refer and note that pharmacy is as yet without representation or mention.

"Last June, as was pointed out in a previous editorial in *The Journal* ("The Administration Studies Social Insurance," 103: 609, Aug. 25, 1934), President Roosevelt created a committee on economic security to look into plans and advise prospective legislation that will provide people with decent homes and productive work

and 'safeguard them against misfortunes which cannot be wholly eliminated in this man-made world of ours.' The committee included the Secretaries of Labor, the Treasury and Agriculture, the Attorney-General and the Federal Emergency Relief Administrator. This committee established a staff and selected as secretary and executive director Edwin E. Witte, a labor economist long associated with the industrial commission of the state of Wisconsin. The committee set up a technical board of twenty persons in the government service with special knowledge of various phases of economic security and also established a staff of specialists to look into different aspects of the subject.

"In a bulletin for the press, just issued, it is pointed out that there is contemplated an advisory council to be named by the President. This council is to be composed of representative citizens who will advise on broad general policies. A special medical advisory committee is also to be appointed. In its first bulletin the Committee on Economic Security said, 'Following the approach outlined by the President, the committee is trying to draw up a comprehensive program which will give protection to the individual from all the vicissitudes and hazards of modern life—unemployment, accident, sickness, invalidity, old age and premature death.' The report of the committee is due to be made to the President on December 1 and will not be made public until released by the President.

"Following the publication of the editorial that appeared in *The Journal*, a statement was received from Miss Perkins to the effect that a group of distinguished physicians would be constituted as an advisory board in the field of medicine. In a recent statement Miss Perkins announces that the medical advisory committee will consist of eleven eminent physicians and surgeons from all parts of the country, including the presidents of the three principal national organizations. Other advisory committees are to be created in dentistry, hospital management and public health."

And this is just the place to repeat the question:

"What is organized pharmacy doing about it?"—Editorial, *Am. Jour. Pharm.*, Nov., 1934.

MEDICOLEGAL

Damages Allowed.—According to the *Northumberland County (Pa.) Medical Society Notes*, Oct. 31, 1934, damages of \$5,000 were allowed by a Dauphin County court jury to Harvey F. Saltzer, Penbrook, for injuries received when he fainted and fell from a stool in a physician's office.

Dr. Frank F. D. Reckord, Harrisburg, the defendant in the case, admitted the injuries but denied negligence. Saltzer, a railway clerk, testified he upset a sterilizing cabinet when he fell swooning in the doctor's office and was severely scalded by the boiling contents.

Doctor Urges Bill to Legalize Euthanasia.—According to an *Associated Press* report, Nov. 5, 1934, legal euthanasia may be proposed in the London Parliament next session as a means of eliminating suffering of people who have incurable painful diseases. Suggestions for a bill embodying these provisions have been advanced by Dr. C. Killick Millard, medical officer of Leicester, who proposes that doctors be given the legal right to put patients to death if the patients request it. Under such a law, application for death would be made by the patient. Supporting his application, the patient would give the names of at least 2 physicians who

could prove he was suffering from an incurable disease. An official to whom the applications would be made would become a sort of legal death referee and would be required to make exhaustive inquiries before granting applications. Dr. Millard is not so much interested in the methods of causing legal death as the provisions for it. He says the methods can be left until the principle is approved.

Agreements for Percentage of Amount Recovered.—A physician was called to attend a woman who had received serious injuries in an accident. The patient did not have the money to pay for medical attention and care. She entered into an oral contract with the physician under which he was to attend her provided she agreed that his compensation would be 20 per cent of the verdict recovered against the person who caused her injuries. If the verdict was against her, however, the physician was to get nothing.

The physician treated the patient for more than 2 years. Shortly before trial of an action which was brought for her injuries, she protested against her liability under the contract and was reluctant to proceed with the trial. The physician threatened to sue her under the contract unless she proceeded with the trial. He offered to withdraw from the case if paid for the services he had rendered. This offer was not accepted.

The trial resulted in a verdict for \$7,200. The physician testified for the injured person at the trial and procured the assistance of another medical expert who also testified. He subsequently sued on the contract for \$1,440.

The Massachusetts Supreme Judicial Court rendered judgment for the defendant, holding that the contract was a champertous agreement; that is, it contemplated legal proceedings; it provided for a share in the fruits of the litigation; it was an agreement in which the champertor had no previous interest in the subject matter of the litigation; and it provided that the fruit of the litigation contracted for should be the only compensation the champertor was to receive.

The court said that it was to be noted that no claim was made for services rendered the defendant prior to the making of the void agreement.

Without invoking the rule governing champertous agreements, it has been directly held that a contract, by one injured, to pay a percentage of the amount received from the one responsible for the injury to his physician for services in treating the injury, is against public policy and void in cases in which the parties contemplated that. The physician shall be a witness for his employer in case suit is necessary.

In 1885, *Thomas versus Caulkett*, 57 Mich. 392 24 N. W. 154, the Michigan Supreme Court held that a contract between a physician and a person injured in a railroad accident that the physician should accompany the injured person to the railroad company's counsel and medical advisers and explain the nature and extent of his injuries, for which the physician was to receive an amount in proportion to the amount for which a settlement should be made with the company, was illegal and void.

The injury was a serious and obscure one. In this case there was no evidence that the physician made any statements which were not accurate; and there was no reason to suppose the injured person got any more than he should have got. But the court said that was not the test. In such a case, it continued, the physician "puts himself in a position where both parties are expected to rely upon him and to act on what he says.

When, under such circumstances, he makes the disclosure of his knowledge and opinions the subject of a contract, whereby his compensation is to depend on the amount obtained by his employer by reason of the disclosure, it is plain that he puts himself in a position where it is to his interest to exaggerate. . . . And, however honest a man's actual intentions may be, and however truthful he may be, there is a direct temptation to misrepresent, and a direct danger that the misrepresentation will operate injuriously to the parties dealt with."—*Medical Record*, July 4, 1934.

HOSPITAL ACTIVITIES

Necropsy Performance.—In the November, 1934, number of the *JOURNAL*, page 92, under Hospital Activities, reference is made to *Hospitals Holding Highest Scores in Necropsy Performance*. There was inadvertently omitted the name of St. Joseph's Hospital, Reading, which ranked second in the State of Pennsylvania and fourteenth among the 685 hospitals of the country approved for internship, with a percentage of 70.8.

Nurses' 8-Hour Day.—According to an *Associated Press* report of Nov. 5, 1934, the Wisconsin State Nurses' Association is experimenting with shortened hours for nurses and claims to find such a procedure more favorable to patient, doctor, and nurse alike. Two Milwaukee hospitals have tried reducing hours for trained nurses from the old schedule of 12 to 20 hours to three 8-hour shifts. Results of the move led association officials to predict a general reduction of hours in all hospitals in the near future. Sister Mary Felician, director of nurses at St. Joseph's Hospital, Milwaukee, said, "The plan has worked admirably, and everyone concerned is pleased. The cost is the same to the patient, who gets better service from 3 nurses in 24 hours than from 1 or 2 weary, overworked nurses." Doctors were quick to see the advantages and the nurses themselves, although they earn slightly less each day, have more time for leisure, comfort, and sleep, which heretofore had depended greatly on the condition of each one's individual patient. The association's employment records showed many more nurses on duty in St. Joseph's and Evangelical Deaconess Hospitals, since the hours were reduced.

Staff and Occupancy.—From time to time some superintendents insist that it is a good policy to have as many physicians on a hospital visiting staff as possible, provided they meet with the requirements of the institution for staff membership. The reason is that the more men using the facilities of the institution, the greater likelihood there is of increasing occupancy. In this connection a study of the United Hospital Fund's annual report for 1933 shows that one hospital with 70 physicians on the hospital visiting staff maintained an occupancy of 86.4 per cent. This hospital had 400 beds. Another hospital of 108 beds reported 85 visiting physicians and had an occupancy for 1933 of 34 per cent. A hospital of more than 900 beds reported 172 visiting physicians and an occupancy of 70.8 per cent. Thus one hospital had an average of only 1 visiting physician for every 5 beds and yet maintained an unusually high rate of occupancy. Another hospital averaging 1 visiting physician for nearly every bed had less than half the occupancy of this institution, and a third hospital with an average of 1 physician to every 6 beds had the highest occupancy rate of the 3. All of this goes to prove that mere numbers of physicians on a staff is not

a guarantee of more business.—*Hospital Management*, Nov. 15, 1934.

What Are the Facts About Maternal Deaths in Hospitals?—M. T. MacEachern, M.D., associate director, American College of Surgeons, Chicago, discusses this subject in *Hospital Management*, Nov. 15, 1934. Some people have attempted to condemn obstetrical practice by comparing maternal statistics in the United States with those of other countries. Such a comparison is unfair inasmuch as it is impossible to ascertain if the figures being compared are actually comparable. Mortality statistics differ in various sections of the same country and among the different strata of society.

Methods of compiling statistics differ in various communities. In many instances the relation of the cause of death to pregnancy is not definitely established. A pregnant woman may die of pneumonia or some other condition not related to pregnancy. In the United States this is commonly counted as a maternal death; in other countries it may not be counted. Thus, if variations in compiling maternal mortality rates are not taken into consideration, the United States can be placed in any unfavorable light.

There is no denying the fact that the maternal mortality rate in the United States is too high. Every year in this country an aggregate of 16,500 mothers die from causes associated with pregnancy and childbirth. That is far too large a toll of human life, especially when 10,000 of those lives could and should be saved each year.

Sixty-five per cent of maternal deaths are known to be caused by factors which are controllable.

Maternal mortality would be greatly reduced if women would assure themselves of proper prenatal care, competent medical attention during labor, and adequate follow-up care for 6 to 9 weeks after childbirth.

For prospective mothers who can not afford to have prenatal care in the private office of a physician, prenatal clinics have been organized in many hospitals.

The hospital must have a properly organized and equipped department of obstetrics, segregated from the rest of the hospital. In this department there must be adequate accommodation for the mothers and newborn with separate personnel, sterilization facilities, supplies, and rigidly aseptic technic. There should be special facilities available for the immediate isolation of all cases of infection or similar conditions which might endanger the safety and welfare of other patients in the department. The department must have thoroughly trained and adequate personnel. Readily available and adequate laboratory services together with special treatment facilities are essential.

The obstetrical department must analyze and review its results regularly so as to assure efficient and scientific care of each patient. Student nurses and interns must be given adequate training in the care of maternity patients.

There are still some people who advocate the home as the best place for childbirth. These people seem to overlook the fact that civilization has advanced. Still, they refuse to admit that the modern hospital is far better equipped for maternity cases than any home, no matter how fine or how elaborate that home may be. It is unfair, fallacious, and illogical to attempt to compare obstetrical mortalities in the hospital with those in the home. Those people who seek to prove that the home is safer than the hospital for the delivery of obstetrical cases are shutting their eyes to obvious facts.

Ninety-four per cent of all maternity cases in Stockholm, Sweden, are confined in hospitals under expert obstetricians, and Sweden has one of the lowest maternal mortality rates among the civilized nations of the world.

Upon every community rests a double responsibility: First, to provide adequate accommodations for maternity cases in hospitals; and second, to carry on a program of education so that the public may be enlightened concerning the safety of the modern hospital for maternity cases.

PHYSICAL THERAPY

Effect of Diathermy Treatment of Kidneys on the Renal Function As Measured by the Urea Clearance Test. *J. A. M. A.*, 102:14:1131 (April 7), 1934.—Contradictory literature has grown up regarding the observed effects of renal diathermy. Some investigators have found neither a diuretic effect nor any evident therapeutic advantage, whereas others have stated that they have had good results.

Evidence concerning the effects of diathermy on renal function was obtained by observing the effect of one-hour periods of diathermy on the urea clearance. The subjects were either normal or those suffering from hemorrhagic Bright's disease, nephrosis, or essential hypertension.

In all cases the blood urea was not changed to any large extent, there being a slight tendency to fall from the first period to the last. Also, no consistent change in the water excretion was noted, and, lastly, the urea clearance was not altered significantly. Blood pressure measurements during the diathermy treatment showed no consistent change from the control level.

Diathermy treatment was given to 14 subjects (normal subjects and patients with hemorrhagic Bright's disease, nephrosis, and essential hypertension) for one-hour periods. No significant change was observed in the blood pressure or in the renal function as measured by urea clearance test, diuresis or blood urea. The results afford no support for the assumption that renal diathermy is of therapeutic value in essential hypertension or Bright's disease.—*Physiotherapy Review*, Sept.-Oct., 1934.

Diathermy in Ambulatory Gynecologic Patients. *Arch. Phy. Ther., etc.*, 1934, xv, 197-200.—Medical diathermy was given to 32 patients; 12 of them suffered from pelvic adhesions and 15 from pelvic inflammations. Of the former, 3 were cured, 8 improved, and 1 not improved; of the latter, 3 were cured, 8 improved, and 4 not improved. Thirty cases were submitted to surgical diathermy; the cervix was coagulated in 29 cases, and desiccated in one. The latter case was cured by monopolar desiccation. Of the 29 cases, 25 were cured and 4 not cured, the erosions still remaining. Medical diathermy with local and general therapy is strongly advocated for pelvic adhesions and inflammations.—*British Jour. of Physical Medicine*, August, 1934.

The Therapeutic Use of Histamine in Orthopedics. *Chirurgia degli organi di movimento*, 1933, xviii, 513-528.—The writer adopts Bettmann's method by using a product called Imdyl (Roche), prepared in tablets, each containing 0.05 gr. histamine or as an ointment containing about 2 per cent of histamine. The technic is as follows: Cataphoresis. Baths. The best solution is that of 1:20,000 (one tablet to a liter of

water). The advantage of this method is that the part to be treated is entirely covered by the solution; if the action is too intense, a solution of 1:40,000 or 1:60,000 should be employed. Intensity of the current, 5 to 10 M.A.; duration up to 10 minutes. Carbon electrode for the anode. The cathode should be applied over an adjacent part of the skin. Indicated in polyarthritides and in various disturbances of the extremities. Ointment. (a) Massage. First wash the part to be treated with benzine and then rub with the ointment; after 3 to 5 minutes the skin becomes red and the pains decrease; after the sitting is finished the remainder of the ointment should be removed by soap and benzine. This method is suitable for myalgia of the back and the extremities. (b) Friction after scarification of the skin with a suitable instrument. The reaction is violent. It is rarely used but is of value in obstinate arthritis of the knee. (c) Cataphoresis. After washing the skin with benzine apply the ointment and an electrode soaked in warm water, serving as the anode. The galvanic current should be gradually increased in intensity up to 8 to 10 M.A. Duration 2 to 5 minutes. This method is particularly indicated when it is desired to procure a strong action. The writer has found the application by cataphoresis of the ointment is much more efficacious than the liquid preparation. No disadvantageous effects were ever seen; the intensity never exceeded 10 M.A. and the duration 4 minutes. Great relief of pain was noted in all the cases, but if the relief were only temporary, the treatment was repeated and in few cases was it not lasting. The results were very good.—*British Jour. of Physical Medicine*, Sept., 1934.

Should All Prostatic Obstructions Be Resected? *Urol. and Cutan. Rev.*, 38:405 (June) 1934.—Urologic surgery has its fads and succumbs to the national trait of catching hold of an idea and riding it hard for the time at least. The procedure has now been in vogue long enough and a sufficient number of cases have been collected to give us a fairly good composite picture of our results. They are:

1. The punch or loop resection is a permanent addition to urologic surgery.
2. It is adapted to at least 75 per cent of all prostatic obstructions.
3. Punch or loop resections should not be attempted on all obstructions of the internal vesical orifice.
4. Huge prostatic enlargements, markedly infected prostates, and intra-urethral prostatic lobes can be better managed by a surgical prostatectomy.—*Arch. Phys. Ther.*, July, 1934.

INDUSTRIAL MEDICINE

Compensation Report.—According to the *New York Times*, Oct. 28, 1934, compensation amounting to \$11,972,487 for 37,904 accidents to men and women who were injured or killed during employment was awarded by the State Department of Labor for the first 6 months of 1934. The amount is \$1,500,000 less than awarded for the same period last year, a decrease of 11.9 per cent in 40,429 cases. The reduction in compensation was relatively greater than the reduction in the number of cases because decreased wages as well as decreased employment affected the compensation cost. Of the 37,904 accidents, 415 were fatal, 50 caused permanent total disability, 8,744 resulted in partial disability and 28,695 created only temporary disablements.

PUBLIC HEALTH

Urinalysis by Machine.—That this is a Machine Made Age is daily manifesting itself. The following account of urinalysis by machine is recorded in the *Northumberland County (Pa.) Medical Society Notes*, Oct. 31, 1934.

A machine recently set up in one of the men's washrooms in the Rice Hotel, Houston, Texas, induces a customer to drop a 25-cent piece into a slot. The machine then presents a funnel in which the man may deposit a sample of urine. That done, he pulls a lever which automatically pours the fluid into 2 smaller, transparent containers. As the customer waits, the machine automatically squirts acid into one of the containers, a mixed solution into the second. If the urine in the first container shows white, the man has kidney trouble. If the other sample of urine turns red or yellow he has diabetes.

Dr. Johnson Peyton Barnes, of Houston, and Dr. John Bryan Rushing, of Hemphill, Tex., who together invented the urinalyzer, hope to install machines in washrooms throughout the nation.

Homicide Decline Noted.—There were 3 per cent fewer suicides and 3.3 per cent fewer homicides in the United States and Canada during the first 9 months of the present year than in the corresponding period of 1933, it was reported recently by Metropolitan Life Insurance Company statisticians. Their figures were based on the mortality of the company's industrial policyholders.

The report also disclosed a slight increase, from 2 per 100,000 to 2.3, in deaths from alcoholism. Outstanding improvement, however, was shown in mortality from tuberculosis, diphtheria, and puerperal diseases.

The record for tuberculosis was said to be the outstandingly favorable health development of the year. For the first time, the tuberculosis death rate of the white policyholders for the first 9 months of any year fell below 50 per 100,000 and that for respiratory tuberculosis below 45.—*N. Y. Times*, Oct. 28, 1934.

Are You Interested?—With the increased growth of sanitary supervision, and the very logical and continuous publication of the really amazing results thereof, there has unfortunately developed an undue sense of security on the part of the average person. Moreover, this attitude has as its natural sequence the belief that official medicine has so generally invoked the protective factors of life as to make it quite superfluous to give health any personal concern whatsoever.

It follows that most persons become interested in bodily welfare only when something acutely goes amiss. With a not altogether excusable logic they then imagine that a few pills or a tonic prescribed by their physician will promptly set them on their feet again. And they are likely to become highly critical if the medico does not achieve a cure in record-breaking time.

Such a view is entirely too mechanical. Cures are not attained by removing a few bolts, disengaging the offending part, and quickly substituting a new and perfect one. Of course, that is the technic on the speedway. But, after all, bodies are not composed of cleverly assembled parts. And one therefore cannot treat them after the manner of automobiles.

Which indicates that the individual must have a keener appreciation than he apparently has today of bodily limitations as well as those of official medicine and even of his personal physician.

True, amazing progress has been made in the public health, in the medical, and in the surgical fields within the last 40 years. However, the necessity of being reasonably and habitually interested in one's own welfare is just as great today as it ever was. Nature still exacts the penalties for one's deliberate and consistent disregard of her demands. And all the health safeguards and the skilled efforts of the modern practitioner of medicine will be of minimum avail, if the Old Dame over a long period of time is deliberately slapped in the face or ignored.

Thus, in spite of mass control of disease and of the miracles of present-day medicine and surgery, one must be at least sufficiently alert to realize that a consistent adherence to the fundamental living requirements is absolutely essential to obtain full value on medical science.

To go madly on spending energy that is not possessed, to eat more or less than is good for one, to exercise not at all, to rely wholly on stimulants for zest, is to display a criminal indifference to the one and only great worthwhile factor in life, namely, abounding health and the joy that accompanies it.

How much reasonable interest in this vital matter have you been displaying?—Editorial, *Pennsylvania's Health*, July-Aug., 1934.

New York's Maternal Death Roll.—Lack of skill, faulty judgment, poor hospital administration, and incompetent midwifery were responsible, according to the findings of the Committee of the New York Academy of Medicine appointed to study maternal mortality in New York City, for 65 per cent of the preventable deaths of mothers during the 3-year period, 1930-1932. During that period 2041 young mothers died, and of these deaths the committee judged 1343 to have been preventable.

Of the total number of deaths, 262 were due to septic abortion, 95 to abortion, 120 to ectopic gestation, 197 to hemorrhage, 510 to puerperal septicemia, 231 to albuminuria and eclampsia, 14 to pernicious vomiting, 89 to phlegmasia alba dolens and embolus, 171 to accidents of labor, 8 to puerperism, and 344 to extrapuerperal causes.

Of these classified causes, 77.1 per cent of the deaths from abortion were considered to have been preventable, 68.1 per cent of those from therapeutic abortion, 74.2 per cent from ectopic gestation, 76.1 per cent from hemorrhage, 75.1 per cent from puerperal septicemia, 72.7 per cent from albuminuria and eclampsia, 57.1 per cent from pernicious vomiting, 9 per cent from phlegmasia alba dolens and embolus, 87.1 per cent from accidents of labor, and 34 per cent from extrapuerperal causes.

Figures for the total number of cases in which responsibility was ascribed to the physician show an almost equal distribution between faults of judgment and faults of technic, 49.1 per cent and 50.9 per cent respectively.

"The large percentage of disparity between the actual and the recorded cause of death as shown on the death certificate is of interest," says the report. "For the entire series of 2041 deaths the total percentage of error was 17.8. In the diagnosis of abortion this rose to 34.7, the next highest percentage of error being 29.2 in the death certificates where the cause of death was septicemia. In 324, or 15.9 per cent of the total series, there was no mention of the true cause of death, and in 40, or 2 per cent, the condition given as the cause was found to be nonexistent."

The conclusion of the committee is stated as follows: "To improve this situation and remove the causes out of which it arises, it is evident that there must be a determined effort to educate both the lay public and the medical profession to an understanding of the necessity for change in certain of the methods now employed. The profession itself must accept the responsibility for educating the lay public to a better understanding of the aims of obstetrics and the methods by which those aims may be realized. But prior to that must come increased education of the profession, that it in turn may wisely inform the lay public."—Editorial, *Medical Record*, Aug. 1, 1934.

Morbidity in Pennsylvania in September, 1934

Locality	Disease				
	Diphtheria	Measles	Scarlet Fever	Typhoid Fever	Whooping Cough
Aliquippa	0	15	26	0	1
Allentown	2	1	2	1	27
Altoona	1	0	4	0	12
Ambridge	0	0	2	0	0
Arnold	1	0	3	0	0
Beaver Falls	0	0	0	0	7
Bellevue	0	0	0	0	0
Berwick	0	0	2	0	0
Bethlehem	0	0	0	0	6
Braddock	2	0	1	0	0
Bradford	0	0	3	0	2
Bristol	0	0	0	0	0
Butler	0	7	0	0	2
Canonsburg	0	0	3	0	0
Carbondale	0	0	0	0	0
Carlisle	0	0	2	0	0
Carnegie	0	0	0	2	0
Chambersburg	0	1	3	0	0
Charleroi	0	1	0	0	0
Chester	0	0	2	1	8
Clairton	0	0	0	3	2
Coatesville	0	0	0	0	0
Columbia	0	0	0	0	0
Connellsville	0	0	1	0	0
Conshohocken	0	0	1	0	0
Coraopolis	0	1	4	0	1
Diekson City	0	0	0	0	0
Donora	0	0	3	0	1
Dormont	0	0	0	0	0
Du Bois	3	0	3	0	0
Dunmore	0	0	1	0	2
Duquesne	0	0	2	0	0
Easton	1	0	1	0	1
Ellwood City	1	0	2	0	2
Erie	1	0	2	0	6
Farrell	2	0	0	0	1
Franklin	0	0	9	0	0
Greensburg	0	0	0	0	0
Hanover	0	0	0	0	0
Harrisburg	0	0	1	0	11
Hazleton	1	2	3	0	4
Homestead	0	0	1	0	0
Jeannette	0	0	1	0	0
Johnstown	0	0	6	3	5
Kingston	1	0	0	0	0
Laneaster	0	4	1	0	12
Latrobe	0	0	0	0	4
Lebanon	0	0	0	0	0

Locality	Disease				
	Diphtheria	Measles	Scarlet Fever	Typhoid Fever	Whooping Cough
Lewistown	0	0	0	0	0
McKees Rocks	1	0	3	0	0
McKeesport	1	0	0	0	1
Mahanoy City	0	0	1	0	1
Meadville	0	0	0	1	0
Monessen	1	0	7	0	0
Mount Carmel	0	0	0	0	0
Munhall	0	0	0	0	4
Nanticoke	1	0	1	0	0
New Castle	9	0	1	1	0
New Kensington	3	0	1	0	1
Norristown	0	0	1	0	3
North Braddock	0	0	0	0	3
Oil City	0	0	0	0	22
Old Forge	9	0	0	0	0
Olyphant	0	0	0	0	1
Philadelphia	15	8	62	5	294
Phoenixville	0	0	0	0	2
Pittsburgh	22	16	63	13	67
Pittston	0	0	0	0	0
Plymouth	0	0	0	0	0
Pottstown	1	0	2	0	3
Pottsville	0	0	0	0	2
Reading	2	1	2	0	69
Scranton	1	8	5	0	16
Shamokin	0	0	0	0	1
Sharon	0	0	2	2	0
Shenandoah	0	0	3	0	0
Steelton	0	0	0	0	2
Sunbury	2	0	0	0	1
Swissvale	0	0	0	0	1
Tamaqua	1	0	0	0	0
Taylor	0	0	0	0	0
Turtle Creek	0	0	0	0	0
Uniontown	0	0	4	0	1
Vandergrift	0	0	0	0	1
Warren	0	0	0	0	0
Washington	1	0	0	0	14
Waynesboro	0	0	0	0	0
West Chester	0	0	0	0	0
Wilkes-Barre	6	2	6	0	12
Wilksburg	0	0	0	0	0
Williamsport	0	1	3	0	1
York	1	1	2	1	1
Townships					
Allegheny County:					
Harrison	0	0	0	0	0
Mt. Lebanon	1	0	0	0	0
Stowe	1	0	1	0	0
Delaware County:					
Haverford	1	0	2	0	10
Upper Darby	0	3	0	0	5
Luzerne County:					
Hanover	1	0	2	0	0
Plains	0	0	0	0	0
Montgomery County:					
Abington	0	0	0	0	0
Cheltenham	0	0	0	0	5
Lower Merion	0	0	1	0	3
Total Urban ..	79	72	270	33	664
Total Rural ..	76	341	329	97	347
Total State ..	155	413	599	130	1011

TUBERCULOSIS ABSTRACTS

A Review for Physicians

PREPARED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Published through the coöperation of the Pennsylvania Tuberculosis Society and The Medical Society of the State of Pennsylvania

TO DETERMINE the presence of pulmonary tuberculosis requires alertness and penetrating search. To measure the activity of the disease once the diagnosis has been made and to gauge its progress equally challenge the doctor's skill. "Measurement of Activity in Pulmonary Tuberculosis" was the subject of a symposium at the last annual meeting of the Massachusetts Medical Society. Seven papers dealing with clinical and laboratory methods bearing on the subject were contributed. These papers were summarized by William H. Ordway, in the light of his extensive clinical and sanatorium experience. Excerpts from the paper are here presented. The entire symposium, which was printed in the *New England Journal of Medicine*, August 9, 1934, is well worth the careful reading of every general practitioner.

MEASURING ACTIVITY OF PULMONARY TUBERCULOSIS

A tuberculous process that is in a state of instability, whether tending to progress or retrogress, is said to be active. An active tuberculous process may be "latent" and cause no symptoms (pathologic activity) or it may cause reactions of which the patient is aware (clinical activity).

All degrees of progression, retrogression, quiescence, and healing may be present simultaneously in the same lesion. Little wonder then that the practical clinician, who tries to determine whether or not tuberculosis is active, should grope for his bearings. Only by a careful appraisal of all scraps of information can he discern the trend of the disease.

Since sanatorium experience teaches that a tuberculous process may spread in an amazing manner without clinical symptoms or signs, one is justified in inferring that there must be in the population many individuals who are unaware that they are harboring a progressive tuberculous process. This is strikingly borne out by a report by Fellows, who studied the physical findings of 13,000 employees of the Metropolitan Life Insur-

ance Company regularly examined with the aid of the fluoroscope and, when indicated, with stereoscopic films. Of the 141 cases of active tuberculosis discovered by these means, 33 per cent were symptom-free and 58 per cent had no râles.

Symptoms and Physical Signs

The constitutional symptoms of fever, rapid pulse, loss of weight, fatigue, malaise, irritability, night sweats, gastric disturbances, *etc.*, are indications of toxemia and activity.

Localizing symptoms such as frank pleurisy, wet or dry, indicate an extension of involvement, hence activity.

Hemoptysis should usually be considered an indication of activity.

Increased cough and expectoration may indicate a recrudescence, especially if a previously mucoid sputum becomes mucopurulent and if, in some cases, the Gaffky count is appreciably increased.

An increase of physical signs may accompany a very definite improvement in the clinical condition with a clearance in the roentgen-

ray shadows, and in a few cases physical signs may decrease while patients apparently progress unfavorably.

Despite the reports that persistently positive sputum is consistent with health, it is difficult to divorce one's self from the impression that a positive sputum does not indicate at least a smoldering pathologic activity.

Elastic fibers in the sputum always indicate activity. Cavity is all too frequently silent from the standpoint of physical signs.

Spontaneous pneumothorax in the tuberculous is generally considered as the result of activity, though at times it is impossible to demonstrate such activity by the roentgenogram.

Roentgen Rays

Serial roentgenograms afford the best single examination information obtainable. Shadows with ill-defined, nebulous borders seem to indicate activity, while those with clear-cut borders are more liable to indicate an inactive condition.

In certain instances, however, particularly in the advanced cases with a multiplicity of lesions, it must be admitted that the roentgen ray has certain limitations because minor progressions or remissions in activity are obscured.

Tuberculin

The tuberculin test is of no help in determining activity. Badger concluded—"The individual response to measured dilutions of tuberculin bore no consistent relation to the activity or inactivity of the tuberculous process."

Bredeck reports that with the Schilling count tuberculin subcutaneously injected gives very definite information as to activity, but to date our investigations, still incomplete, indicate that this points to sensitivity rather than degree of activity.

Leukocyte Count

The leukocyte count affords a method of obtaining a biopsy, so to speak, which mirrors the pathologic tuberculous process and thus gives valuable prognostic information. In Medlar's interpretation the polymorphonu-

clear, the lymphocyte, and the monocyte cells are all concerned in the pathologic processes at some time during the infection. Some investigators favor the polylymph ratio, others the monocyte-lymph ratio. Recently a slide rule has been devised by which Medlar's pathologic conception, based on the leukocyte count, can be expressed in the form of an index.

Although the Schilling count is of distinct value, yet considering the extra time, the skill required in differentiating the cells, and the possibility of error, it is our belief that, with the possible exception of the acute tuberculous process, it does not give added information that cannot be obtained from Medlar's formula.

Sedimentation Test

The sedimentation test may indicate activity of the lesion but cannot be depended upon to foretell impending disaster. It conforms rather snugly to clinical impressions. Like the leukocyte count we do not believe that in the very early stages of minimal disease it gives as much information concerning activity as can be obtained by serial roentgenograms. In other words, both of these reactions seem to lack definite information when it is most needed and the roentgen ray has to be relied upon almost exclusively when a small lesion is first discovered.

Summary

"While patients are under observation and treatment, serial roentgenograms afford the best means of determining activity; next in order of value the leukocytic reactions, red cell sedimentation rate; lastly, physical signs and symptoms. In a disease as complex as tuberculosis no one procedure is infallible, and the best information is obtained by a careful and intelligent interpretation of all methods available that have given evidence of merit."

Discussion and Summary of the Whole Problem with Especial Reference to the Study of the Leukocyte Count in Pulmonary Tuberculosis, Wm. H. Ordway, New Eng. Jour. of Med., August 9, 1934.

Program
DEDICATORY EXERCISES
OF
HEADQUARTERS AND LIBRARY BUILDING
OF THE
MEDICAL SOCIETY OF THE STATE
OF PENNSYLVANIA
AT
230 STATE STREET, HARRISBURG, PA.
TUESDAY, DECEMBER 11, 1934, AT 3:30 P. M.

"The promotion and dissemination of medical knowledge throughout the State remains our important function."—SIR WILLIAM OSLER.*

EDGAR S. BUYERS
Chairman of the Board of Trustees, presiding

INVOCATION—Rev. Wilbur V. Mallalieu, Grace Methodist Episcopal Church, Harrisburg.

PRESENTATION OF KEYS by Lawrie and Green, Architects, Harrisburg.

PRESENTATION OF BUILDING by Building Improvements Committee of the Board of Trustees—Augustus S. Kech, Chairman; Clarence R. Phillips, Frederick J. Bishop.

ACCEPTANCE OF BUILDING by President Moses Behrend.

GREETINGS—James N. Rule, A.M., Secretary Department of Education, State of Pennsylvania.

GREETINGS—Arthur W. Booth, Elmira, N. Y., representing Board of Trustees, American Medical Association.

GREETINGS—Honorable Gifford Pinchot, Governor of Pennsylvania.

GREETINGS—Theodore B. Appel, Secretary of Health, State of Pennsylvania.

UNVEILING OF PORTRAIT OF THE LATE CYRUS LEE STEVENS, A.M., M.D., by Stanley D. Conklin, representing the Bradford County Medical Society.

ADJOURNMENT at 4:30 p. m.

"To infect the young with the reading habit, books must be made accessible."—
—HARVEY CUSHING.

* A member of the Medical Society of the State of Pennsylvania, 1886-1889.



THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA

OFFICERS' DEPARTMENT

WALTER F. DONALDSON, M.D., *Secretary*, 8104 Jenkins Arcade, Pittsburgh. Pa.

THE SEASON'S GREETINGS

It is my pleasant duty as president of your State Society to convey greetings to the members at this time of the year.

The season of good cheer and of good will is fast approaching. May it bring with it not only renewed faith in man but also renewed hope that the ideals and traditions in medicine which we are striving to uphold will not be destroyed. Let us be alert to the exigencies of the future and support our constituted officers.

A Merry Christmas and a Happy New Year to You and Your Family!

MOSES BEHREND, *President*.

ANNUAL SECRETARIES' CONFERENCE POSTPONED

At the October first meeting of the Board of Trustees, Secretary Donaldson referred to the great success of the state-wide conference held in Harrisburg on September 5. This conference, which was held under the joint chairmanship of Chairmen William H. Mayer, C. L. Palmer, and Philip J. Lukens of the Committees on Public Relations, Public Health Legislation and Medical Economics, respectively, was attended by representatives of similar committees of component societies totaling 89 members from 41 societies. It was pointed out that the subjects under consideration would otherwise have been scheduled for discussion at the next annual conference of component county secretaries and editors. The cost to the State Society of this state-wide conference was about \$900. The advisability was therefore suggested of postponing the 29th Annual Secretaries' Conference until later than usual—possibly a date late in the 1935 session of

the Pennsylvania Legislature, and Secretary Donaldson was instructed to arrange the time and the program for same. Further details will be furnished those who are invited to the Secretaries' Conference, and will also be published in this Department in a subsequent issue of the JOURNAL.

MINUTES OF MEETING, COMMITTEE ON POSTGRADUATE EDUCATION

The following are the minutes of the meeting of the Committee on Postgraduate Education of The Medical Society of the State of Pennsylvania held Wednesday, Oct. 24, 1934, at the Harrisburger Hotel, Harrisburg. Chairman Donald Guthrie presided. Other members of the Committee present were J. L. Atlee, Lancaster; Nathan Blumberg, Philadelphia; W. F. Gemmill, York; W. F. Kunkle, Williamsport; Frederick B. Utley, Pittsburgh; also Secretary Donaldson, and H. T. Price of Pittsburgh, a member of the Committee on Pediatric Education:

Chairman Guthrie emphasized that the State Society's work was not to take the place of county society postgraduate plans or to displace programs for their scientific meetings.

The minimum number of registrants for the class should be 25. Physicians from near-by counties may join.

It was decided that the postgraduate seminars be instructed only by Pennsylvania teachers associated with the medical schools in Pennsylvania.

The plan of organization should be as follows: Each county society should initiate the organization of a class and communicate with Chairman Donald Guthrie, of Sayre, Pa. Those who register for same are to decide on the most desirable subjects for study and choose the teachers from lists to be provided by the State Society Postgraduate Committee.

County societies deciding to accept the plan are advised to organize a Registration and Organization Committee, whose duty it would be to enlist and organize a class; appoint a Dinner and Reception Committee to arrange for the reception of the visiting instructor and arrange for the lunch or dinner for the class and instructor; and finally select a Finance Committee to collect the fees and pay the expenses.

The charge for the 6 seminars is to be \$10 for each registrant, this to include lunch or dinner; the visiting instructor is to receive an honorarium of \$25 and railroad fare. The State Society through the Board of Trustees is to absorb unavoidable deficits. (Total for courses given to date \$6.36.)

The State Committee strongly advises holding the 6 seminars in consecutive weeks.

Dr. Kunkle, Williamsport, stated that Lycoming County will carry on the class again the same as last year. Dr. Atlee will endeavor to unite the counties of Lebanon and Lancaster, and will call on the Berks County Society to urge them to organize a class. Dr. Utley will function similarly in counties of western Pennsylvania. Dr. Blumberg will attempt to interest and offer to assist in Chester and Delaware counties. Dr. Guthrie will call on McKean County. Dr. Gemmill will endeavor to unite Adams and York Counties.

It was announced that Mifflin and Blair counties have decided to unite in forming a class.

DONALD GUTHRIE, *Chairman*,
NATHAN BLUMBERG, *Clerk*.

EMERGENCY CHILD HEALTH COMMITTEE

An all-day meeting of the state-wide Executive Committee of the Emergency Child Health Committee was held in the Governor's Reception Room, Capitol Building, Harrisburg, on Wednesday, October 24, 1934, under the chairmanship of S. McC. Hamill, M.D., of Philadelphia.

In his welcoming remarks Governor Pinchot commended the work that is being done by the committee throughout the State in the interests of under-privileged children, and again expressed the hope that a public meeting would be held in December in order that the people of the State might learn about its accomplishments.

Other members of the committee who were present and took part in the discussions were President Moses Behrend of our Society, Past-President Donald Guthrie, Dr. F. B. Royer, Mrs. Berthold Strauss, Dr. Charles H. Smith, Miss Netta Ford, Mrs. E. E. Kiernan, Mrs. A. S. Kech, Dr. R. K. Rewalt, Miss Mildred Morse, Dr. Walter F. Donaldson, Mrs. L. D. Gilbert, Dr. H. T. Price, Rev. F. A. McNelis, Mrs. I. A. Liveright, Dr. C. A. Patten, James E. Aiguier, D.D.S.; also Miss Brown, Miss Manley, Dr. Mary Riggs Noble, Mr. Moorhead, Dr. Harold A. Miller.

Chairman Hamill paid glowing tribute to the SERB for the painstaking and efficient manner in which their Harrisburg offices have handled the committee's innumerable requisitions. He reported that the Pennsylvania Congress of Parents and Teachers last spring agreed to use the Emergency Child Health Committee examination forms for their summer round-up examinations; also that the county committee chairmen had coöperated in furnishing the names of children, thus preventing duplication of effort. The Congress of Parents and Teachers also agreed that free examinations should be given only to the children of parents unable to pay, and that parents able to pay would be urged to have their children examined by their family physician, using the Emergency Child Health Committee form. Chairman Hamill also expressed gratification over the correction of a large number of physical defects of children and of malnutrition.

STATE NURSES' ASSOCIATION ENDORSES CHILD HEALTH EXAMINATIONS

An interesting outcome of the recent meeting of the Executive Committee of the Emergency Child Health Committee is reflected in the following action by the Pennsylvania State Nurses' Association:

At the recent convention of the Pennsylvania State Nurses' Association, held in Harrisburg, our representative (Miss Ford) who attended the meeting of the Emergency Child Health Committee on October 24, presented a report which contained the following resolution:

THAT, the nurses make an effort to have every child go to their family physician for a yearly examination for the welfare of the health and growth of the child.

This resolution was unanimously adopted by the following motion:

THAT, the report be accepted and the Pennsylvania State Nurses' Association give every possible support to this program.

In the discussion it was very forcibly brought out that not only families on relief should be encouraged to have this examination made, but every family should be so encouraged. The nurses will make every effort to attain this goal.

This is a distinct contribution to the furtherance of our desire to have all children—those who can pay for the service as well as the indigent—receive periodic health examinations. The State Federation of Pennsylvania Women and the Pennsylvania Congress of Parents and Teachers are working to the same end. It is suggested that each County Emergency Child Health Committee solicit the support of the men's service clubs in this campaign.

ACKNOWLEDGMENT

November 15, 1934.

SECRETARY DONALDSON:

I have received the Pennsylvania Poor Laws booklet prepared by the State Medical Society and am so pleased with it I would like very much to have several more copies. Will you please see to this and have them sent to me at the Directors of the Poor Office, Court House, Washington, Pa.

Very truly yours,

LUCY W. BIGGER,
Poor Director, Washington County.

LEGAL OPINIONS REGARDING
WORKMEN'S COMPENSATION

November 8, 1934.

SECRETARY DONALDSON:

When I talked with you in Harrisburg, September 5, I promised to send you a memorandum concerning the right of a physician who is employed to treat an injured workman to collect from the workman or from the workman's employer the reasonable value of the physician's services, by action at law, without reference to the provisions of the workmen's compensation act that limits the amount that the workman can collect from his employer for medical services that the employer was obligated to provide but did not, and which therefore were provided by the workman himself. I told you then that it would not be possible for me to make any definite statement regarding the situation in the Commonwealth of Pennsylvania without a more or less exhaustive search of the statutes and court decisions there.

On my return to Chicago, I asked one of my assistants, Mr. McDavitt, to look into the matter. Because of a multiplicity of other duties, he has only recently submitted his report. Mr. McDavitt first points out that the Pennsylvania Workmen's Compensation Act of June 2, 1915, Section 306(e) provides:

"During the first thirty days after disability begins, the employer shall furnish reasonable surgical and medical services, medicines, and supplies, as and when needed unless the employee refuses to allow them to be furnished by the employer. The cost of such services, medicines, and supplies shall not exceed one hundred dollars. If the employer shall, upon application made to him, refuse to furnish such services, medicines, and supplies, the employee may procure the same, and shall receive from the employer the reasonable cost thereof within the above limitations. In addition to the above services, medicines, and supplies, hospital treatment, services, and supplies shall be furnished by the employer for the said period of thirty days. The cost for such hospital treatment, service, and supplies shall not in any case exceed the prevailing charge in the hospital for like services to other individuals. If the employee shall refuse reasonable surgical, medical, and hospital services, medicines and supplies, tendered to him by his employer, he shall forfeit all right to compensation for any injury or any increase in his incapacity shown to have resulted from such refusal."

Later on he states:

"While there are no Pennsylvania cases on the point the great majority of American courts passing on the point hold that the fact that a compensation act requires an employer to 'furnish' reasonable medical care to an injured workman does not affect a physician's contractual relations with the employer where such relations exist or does not impose such relations where none would exist at common law.

"If an employer or an insurance carrier requests a physician to attend an injured workman and the parties agree to a stated amount to be paid the physician for such services, the physician can recover in an action at law for the agreed amount, regardless of the limitations imposed by the compensation act. If no stated amount is agreed on, the employer or the insurance carrier is liable in an action at law for the reasonable value of such services to be determined by the court, provided the physician has not by conduct or otherwise impliedly bound himself to accept the amount specified in the compensation act. 72 A. L. R. 1016 and cases there cited. A workmen's compensation board has nothing to do with the fees that a physician collects under the contracts with work-

men, employers, or insurance carriers. The physician must have recourse to the courts and the ordinary processes of law to enforce such contracts. *Wilson Drilling Co. v. Beyer* (Okla.), 280 P. 846; *Robinson v. Taylor* (Okla.), 244 P. 47; *Bloom v. Jaffe* (N. Y.), 94 Misc. 222, 157 N. Y. S. 926."

After pointing out that an employer is not liable for payment for the services rendered by a physician when the physician is under a contract with the insurance carrier to render such services, Mr. McDavitt continues:

"Similarly, the fact that an employer under a statutory duty to furnish medical aid refuses to do so and the workman is forced to procure such aid elsewhere, of itself raises no implied promise on the part of the employer to pay the physician. *Beach v. Gendler* (Supreme Court of Minn., 1921), 182 N. W. 607.

"The only pertinent Pennsylvania case (*Trustees of State Hospital of Middlefield Coal Field of Pa. v. Lehigh Valley Coal Co.* (Supreme Court of Pennsylvania, 1920) 110 A. 255, 266 Pa. 474) seems to indicate that if an employer makes no tender to furnish medical aid and knowingly permits without objection a physician other than one of his own selection to render such care, an implied obligation arises in law on the part of the employer to pay the physician for the services rendered."

Mr. McDavitt's conclusion with respect to the scope of this decision seems to be based on the provision in the law, *supra*:

"If the employer shall, upon application made to him, refuse to furnish such services, medicines, and supplies, the employee may procure the same, and shall receive from the employer the reasonable cost thereof within the above limitations."

In this case there seems to have been no application made to the employer for medical services; he seems to have acquiesced in the employees' procuring their own medical services in the first instance, and thus apparently constituting them his agents with respect to the matter. The court said:

"The employer's duty is to 'furnish' medical aid and not merely to reimburse the injured employee after the service has been procured elsewhere. Had this been an action by the employee based on defendant's refusal to furnish aid, the latter might well set up the facts agreed on as a complete performance of its duty under the act. The employer, in lieu of furnishing the service required by the act, having acquiesced in the removal of the injured employee to plaintiff hospital for care and treatment, adopted this method of performing its statutory duty, and at once there arose an implied obligation on its part to pay plaintiff for such service."

Mr. McDavitt finds:

"In the absence of an express or implied agreement to the contrary, a physician who treats an injured workman at the instance of the employer, cannot recover the reasonable value of his fees from the workman in an action at law. Under such circumstances, no contract express or implied exists between the workman and the physician—the promise to pay rests on the employer. *Hodgen v. Bitely* (Mich.), 215 N. W. 37."

Before committing myself to any such doctrine, I would want to search the authorities further with respect to this matter, and unfortunately time will not permit me to do so. You will observe that the law requiring the employer to furnish reasonable medical and surgical services within certain limits of cost is stated in the law itself. An employer might well contend that inasmuch as the physician employed by him is presumed to know the law and to know the extent of the employer's liability, the physician should not, without an express contract with the employer, have continued in attendance after the employer's liability was exhausted. I know that there are cases to the contrary, but a careful analysis would be worth while before expressing any final opinion concerning this aspect of the situation.

Mr. McDavitt continues:

"An injured workman who requests a physician to attend him is personally liable in an action at law, in the absence of an express or implied agreement to the contrary, for the reasonable value of the physician's services. The fact that an award has been made by the workmen's compensation board in favor of the workman and against his employer does not limit the amount the physician can recover from the workman

in an action at law. *Noer v. Jones Lumber Co.* (Wis.), 175 N. W. 784. A physician may, however, bind himself by an express or an implied contract to accept whatever amount the board awards the workman. If, for instance, a physician has customarily demanded of injured workmen whom he has treated, fees equal to the amounts awarded to such workmen by the workmen's compensation board for medical service, a court may reasonably conclude that the physician always limits his fees in such cases in that manner and that the workman entered into the contract for medical services in reliance on the physician's custom."

This matter has been discussed in a general way in a comment printed in the JOURNAL, 103:855-856 (Sept. 15) 1934.

If I can serve you further, please let we know.

Yours truly,
 WM. C. WOODWARD, *Director,*
Bureau of Legal Medicine and Legislation,
American Medical Association.

FIRST AID TO RWD EMPLOYEES

November 22, 1934.

To the Secretaries of the Component County Medical Societies of the Medical Society of the State of Pennsylvania.

DEAR DOCTOR:

At the time of the original discussion and subsequent agreement between representatives of our Society and representatives of the Relief Works Division of the State Emergency Relief Board regarding the provision of adequate medical service to men employed throughout Pennsylvania under RWD, one of the points agreed upon was the following; namely, that the component medical society in each county should include among its responsibilities the set-up for satisfactory instructions in "First Aid" to RWD employees on works projects who were serving as timekeepers and foremen.

We presume that this work has been carried forward satisfactorily in a number of counties, but our attention has recently been drawn to the subject by a complaint received from the Works Director in one county to the effect that the County Medical Society has failed, when requested, to provide an instructor and demonstrator of first aid methods, for a group of timekeepers and foremen.

It is believed that this is not an unreasonable request and we respectfully suggest that through your office the member of your Society now functioning as County Medical Referee in connection with injuries under Workmen's Compensation in RWD activities, be requested to assume the responsibility for the preparation and presentation of instructions to laymen in first aid services commonly required for injuries or illnesses developing among groups of laborers at work. There is little doubt that other members of your Society would be glad to assist or become responsible for such demonstrations if requested by the Medical Referee.

Very truly yours,
 MOSES BEHREND, *President.*

PAYMENT OF PER-CAPITA ASSESSMENT

The following payment of per-capita assessment has been received since Oct. 13. Figures in first column indicate county society numbers; second column, State Society numbers:

1934				
Oct. 13	York	135	7960	\$3.75
	Fayette	117	7961	3.75
	Bucks	62	7962	7.50
	Huntingdon	30	7963	3.75

1934				
Oct. 15	Clearfield	61	7964	\$3.75
	Beaver	85-86	7965-7966	7.50
	Delaware	145	7967	7.50
	Lycoming	121-122	7968-7969	15.00
	19 Cambria	171	7970	7.50
	24 Allegheny	1309	7971	7.50
	28 Lackawanna	233	7972	7.50
	*Armstrong	1	1	7.50
	31 Lackawanna	234	7973	7.50
	Center	25	7974	7.50
	Greene	30	7975	7.50
Nov. 1	Erie	150	7976	7.50
	Carbon	31	7977	3.75
	3 *Dauphin	1-5	2-6	37.50
	6 *Armstrong	2	7	7.50
	Mercer	76	7978	7.50
	Crawford	50	7979	7.50
	†Luzerne	311	7773	7.50
	Luzerne	321-323	7980-7982	22.50
	12 Philadelphia	2181-2195	7983-7997	90.00
	*Warren	1	8	7.50
	Montgomery	177	7998	3.75
	*Lawrence	1-3	9-11	22.50
	*Dauphin	6-8	12-14	22.50
	15 *Lancaster	1	15	7.50
	17 Cambria	172-174	7999-8001	22.50
	*Cambria	2-3	16-17	15.00
	Allegheny	7-18	18-29	90.00
	19 Tioga	25	8002	7.50

* 1935 dues.
 † 1933 dues.

CHANGES IN MEMBERSHIP OF COUNTY SOCIETIES

The following changes have been reported to Nov. 7:

ALLEGHENY: *New Members*—Earl D. Baumann, 3652 California Ave., N. S., Herbert L. Osmond, Jenkins Bldg., Thomas C. Wilkinson, 216 S. Pacific Ave., Fenton M. Russell, 44 Wyoming Ave., Morris Esman, 816 Cedar Ave., N. S., Pittsburgh. *Reinstated Member*—Harold S. Mock, Cheswick. *Death*—George C. Kneeder, Pittsburgh (Univ. Pgh. '92) Oct. 12, age 66.

ARMSTRONG: *New Members*—H. DeVere Hotham, Jr., Freeport; John S. McCafferty, Freeport; Robert H. Yoders, Templeton.

BEAVER: *New Members*—Emmett P. Whalen, 528 Maplewood Ave., Ambridge; Clarence L. McMillen, 500 State St., Baden.

BUCKS: *Reinstated Member*—Herbert T. Crough, Doylestown.

CAMBRIA: *New Member*—John W. Barbonus, 218 Franklin St., Johnstown.

CARBON: *New Member*—Leo C. Gallagher, Lansford.

CENTER: *Reinstated Member*—Joseph P. Ritenour, State College.

CLEARFIELD: *New Member*—Theodore C. Klein, 41 N. Brady St., Du Bois.

CRAWFORD: *Reinstated Member*—Hugh Jameson, Titusville.

DAUPHIN: *New Members*—James Bloom, 125 State St., Charles R. Brandt, Harrisburg Hospital, Oscar B. Feldser, 500 N. Second St., John H. Harris, 414 N. Second St., William B. Miller, 1410 Derry St., Harrisburg.

DELAWARE: *New Member*—William R. Stecher, 88 Lincoln Ave., Yeadon.

ERIE: *Reinstated Member*—James T. Strimple, 343 E. 12th St., Erie.

FAYETTE: *New Member*—Edgar K. Wells, Mason-town.

FRANKLIN: *Transfer*—John W. MacMullen, South Mountain (formerly of Harrisburg) from Dauphin County Society.

GREENE: *Reinstated Member*—V. P. Hart, Butler.

HUNTINGDON: *New Member*—Joseph A. Carney, Robertsdale. *Transfer*—Raymond R. Decker, Lewis-ton, to Mifflin County Society.

LACKAWANNA: *Reinstated Members*—Nellie G. O'Dea, Medical Arts Bldg., Scranton; Stephen S. Watson, Moosic.

LUZERNE: *New Member*—Stanley M. Stapinski, 78 Mam St., Glen Lyon. *Reinstated Members*—H. M. Neale, Upper Lehigh; Joseph M. Harrigan, 133 S. Washington St., Francis B. Eveland, 478 Carey Ave., Wilkes-Barre. *Removal*—William H. Jones from Hazleton to Numidia. *Death*—George R. Drake, Plymouth (Univ. Pa. '06), Oct. 15, age 55; James W. Geist, Wilkes-Barre (Univ. Pa. '90), Sept. 18, age 71.

LYCOMING: *New Members*—Edward Lyon, Jr., 19 W. Fourth St., J. Stanley Smith, 416 Pine St., Williamsport.

MERCER: *New Member*—William G. McLaughry, Mercer. *Death*—Ralph S. Heilman, Sharon (Univ. Pa. '07), recently, age 54.

MONTGOMERY: *Death*—Robert W. Randall, Royersford (Med. Chi. Coll., Phila. '12), Oct. 20, age 44. *Reinstated Member*—Kenneth E. Propst, Green Lane.

NORTHAMPTON: *Transfer*—Elmer R. Brumbaugh, Pen Argyl, from Lehigh County Society.

PHILADELPHIA: *New Members*—Peter D. Hottenstein, 42 S. 51st St., William J. Lynch, 1523 N. 18th St., William J. McCarty, 5200 Roosevelt Blvd., William U. McClenahan, 212 W. Highland Ave., Chestnut Hill, J. Wesley Miller, 6600 Woodland Ave., Thomas J. Russell, 6640 Elmwood St., Rendall R. Strawbridge, 1418 N. 15th St., Stephen S. Woolston, W. Chestnut Ave., Chestnut Hill, Philadelphia. *Reinstated Members*—Samuel Eglick, 402 Green St., Nathaniel S. Reskof, 2715 N. 12th St., Charles J. V. Fries, Jr., 1737 Chestnut St., G. Harvey Severs, 3401 N. Front St., Swithin Chandler, 1737 Chestnut St., Philadelphia. *Removal*—John T. Shaffer, from Philadelphia to 87 N. Main St., Sellersville; James Fox Schell from Philadelphia to Langhorne. *Resignation*—Horatio C. Wood, Jr., Philadelphia. *Death*—Henry L. Stick, Canandaigua, N. Y. (Coll. Phys. and Surg., Balt. '00), Oct. 1934, age 62; John Albert Boger, Philadelphia (Univ. Pa. '89), Oct. 20, age 65; Philipp Fischelis, Philadelphia (Fried. Wilhelms Univ., Berlin, '85), Oct. 29, age 79; James C. Wilson, Philadelphia (Jeff. Med. Coll. '69), Oct. 28, age 87.

SCHUYLKILL: *Removal*—Adolph Neupauer from Pottsville to 5219 N. Mervine St., Philadelphia.

TIOGA: *Reinstated Members*—Eleanor Larson, Elkland; Lloyd G. Cole, Blossburg.

WASHINGTON: *Reinstated Member*—Philip F. Vaccaro, Monongahela.

YORK: *New Member*—John A. Dunkelberger, Wrightsville. *Transfer*—Maurice N. Harris, Hanover, from Adams County Society.

STANDING COMMITTEES

COMMITTEE ON SCIENTIFIC WORK

Stanley P. Reimann, *Chairman*, Philadelphia
Moses Behrend, Philadelphia
Walter F. Donaldson, Pittsburgh
Frank C. Hammond, Philadelphia
Robert L. Anderson, Pittsburgh
Harvey F. Smith, Harrisburg, *Chairman*, Local Committee on Arrangements
George R. Moffit, Harrisburg, *Chairman*, Scientific Exhibit

AND THE SECTION OFFICERS AS FOLLOWS

MEDICINE—William D. Stroud, *Chairman*, Philadelphia; Edward W. Bixby, *Secretary*, Wilkes-Barre.
SURGERY—Edward J. Klopp, *Chairman*, Philadelphia; George W. Hawk, *Secretary*, Sayre.
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Procedure for Distribution of Cod Liver Oil

INTRODUCTION

The State Emergency Relief Board, through the Procurement and Distribution Department has agreed to the purchase of approximately 200,000 16-ounce bottles of United States Pharmacopœia-x, revised 1934, cod liver oil. It is not the intention of the State Emergency Relief

Board to discourage the existing practices in the counties in furnishing this product, but to substitute a plan whereby the relief client will receive a high grade product at a minimum cost which only the manufacturer can offer. The entire responsibility for the administration and distribution of this cod liver oil within the counties is that of the County Emergency Relief Board or the Executive Director of the Relief Area.

CAUTION AS TO PUBLICITY

The State Emergency Relief Board takes every precaution to avoid undue publicity concerning the distribution and availability of the cod liver oil authorizations in various counties on account of the fact that the supply is limited. Publicity creates extraordinary demand for cod liver oil on the part of the general public and may cause the counties and physicians great embarrassment. Hence, the County Emergency Relief Board must refrain from making any public statements concerning this product. The County Emergency Relief Board should leave the period of assignment of this product to the judgment of the participating physicians. The relief visitor should be guided by the period assigned by the physician when authorizing any subsequent cod liver oil orders.

PRESCRIBING COD LIVER OIL

Licensed and registered physicians who practice in the State of Pennsylvania shall be authorized to participate in prescribing cod liver oil to the relief client on Physician's Authorization, SERB Form 77-C. Physicians are to be furnished with the necessary forms. Physicians advertising for or soliciting business, or physicians who have been removed from the participating list in rendering medical care under the State Emergency Relief Board cannot participate in this work. The physician-pharmacist-patient relationship must be maintained.

PHYSICIAN'S AUTHORIZATION TO ISSUE ORDER FOR COD LIVER OIL, SERB FORM 77-C

The County Emergency Relief Board must furnish the necessary Physician's Authorization to Issue Order for Cod Liver Oil, SERB Form 77-C to all participating physicians. The physician will use these forms (SERB Form 77-C) in prescribing cod liver oil to relief clients. This Physician's Authorization (SERB Form 77-C) must be delivered to the nearest local district relief office or mailed to the County Emergency Relief Board. Upon receipt of the Physician's Authorization (SERB Form 77-C) the County Emergency Relief Board shall render a cod liver oil order (SERB Form 100-B) which must be signed by the relief recipient before presenting to the retail druggist or authorized merchant. The physician must bear in mind that the Physician's Authorization (SERB Form 77-C) is not an order to the druggist, but a request to the County Emergency Relief Board to furnish Cod Liver Oil Orders over the period of time recommended. The recommendation (SERB Form 77-C) to render Cod Liver Oil Orders to relief clients must originate with the participating physician.

The physician in prescribing Cod Liver Oil on SERB Form 77-C must insert the name of the County Emergency Relief Board, the address, the date prescribed, and the Medical Order number which is inserted in the right-hand corner on Medical Authorization (SERB Form 77-M). He must also insert the case name, the patient's name, the case number, and the address. The form must be signed by the physician; otherwise the

order will not be rendered by the County Emergency Relief Board. It is very important that physician's authorization be presented immediately as it will be voided 48 hours after date prescribed. When Physician Authorizations are mailed to the County Emergency Relief Board, the date stamped on the envelope must be considered as delivery date. It is also essential to have the physician mark (x) over the months the cod liver oil is to be furnished by the County Emergency Relief Board.

Only one 16-ounce bottle of U. S. P.-x, revised 1934, cod liver oil will be furnished against this authorization. Subsequent cod liver oil orders shall be recommended by the relief visitor on SERB Form 22A only for the period assigned by the physician's authorization for cod liver oil, and cannot be issued after case has been closed.

The County Emergency Relief Board accounting department shall maintain a record, on the reverse side of this form, of all orders issued against the Physician's Authorization. When a visitor finds a relief client is not using the cod liver oil, or is abusing the privileges granted, she may recommend the discontinuance of any subsequent orders. This information should be inserted under remarks.

COD LIVER OIL ORDER (SERB FORM 100B)

In various sections of the State, wholesale drug dealers have agreed and have been authorized by the State Emergency Relief Board to participate in furnishing a high grade cod liver oil to relief clients at a minimum cost. They have availed themselves with the responsibility of carrying a sufficient stock of the specified cod liver oil to meet the demands of the retail druggist, and a few authorized merchants (where drug stores are not located) in their territory. The wholesale drug dealer will assume all responsibility pertaining to distribution, reimbursing the retailers, and providing adequate service in the entire state.

Upon receipt of the Physician Authorization (SERB Form 77-C), the County Emergency Relief Board will furnish the relief client by mail or through the visitor, a Cod Liver Oil Order (SERB Form 100-B), which is good for one 16-ounce bottle of U. S. P.-x, revised 1934, Cod Liver Oil. This order must be presented to the retail druggist or authorized merchant within 48 hours; if not presented within this time it is voided. The relief visitor will check during her regular visits whether this cod liver oil is being properly used. If the visitor finds that the relief client is abusing the privileges granted, she may immediately discontinue any subsequent orders. Where she finds the patient is cooperating with the physician's recommendations she may request additional orders on SERB Form 22-A. In requesting subsequent Cod Liver Oil Orders, the visitor must be guided by the period assigned on the Physician's Authorization. A record shall be kept on the reverse side of the Physician's Authorization (SERB Form 77-C), of each order. Only one bottle may be requested at any one time, and it must be used before additional orders are requested. The cod liver oil furnished against this order must have a vitamin content equal or more than brand U. S. P.-x revised 1934. When a substitute is used the name, brand, etc., must be inserted on face of Cod Liver Oil Order (SERB Form 100-B). It is suggested that these orders be rendered over a period of 4 months; however, that is up to the participating physician. If the relief case is closed subsequent Cod Liver Oil Orders cannot be furnished. The Cod Liver Oil Order (SERB Form 100-B) must be signed as specified.

County Society Reports

ALLEGHENY

Oct. 16, 1934

The meeting was held at the Hotel Schenley, Pittsburgh. W. A. Bradshaw read a paper on "Malta or Undulant Fever." This condition is not uncommon and should be kept in mind when dealing with any undiagnosed continuous febrile state.

Malta or undulant fever is a specific febrile septicemia infection, the fever exhibiting an irregular character, indefinite duration, and a tendency to frequent relapses. There is profuse sweating, constipation, often rheumatic or neuralgic pains, swelling of the joints, orchitis, mammitis, congestion and enlargement of the spleen, and anemia.

Bacteriologically there is found in the blood stream and the organs an organism known as *Brucella melitensis*, or one of its varieties—*Bacillus abortus* or *Bacillus suis*.

In 1886, Bruce discovered the cause of the disease to be a micrococcus, which now bears his name. The disease is endemic and epidemic in the Mediterranean littoral, hence the name of Malta or Mediterranean fever. It was found that 10 per cent of the goats in Malta harbor the organism. The organism is conveyed to man in the milk of infected goats. In the United States goat milk is rarely a factor, and here the infection is by the *B. abortus*, discovered by Bang, or the *B. suis*. Alice Evans of the United States Public Health Service recently pointed out that the *B. abortus* discovered by Bang and identified by him as the cause of contagious abortion in cattle is apparently identical with the *Brucella melitensis*, the etiologic organism in Malta fever.

The organisms effect entrance through the alimentary tract, with the resultant septicemia. They are found in the heart, the blood stream, and the internal organs, particularly the spleen. Attempts to convey the disease through the bites of insects, mosquitoes, etc., have been failures. Bruce feels that one attack does not confer immunity, with which idea authorities are in agreement.

The incubation period in man is estimated to be 2 weeks, but this is not definitely known.

The symptoms are variable, so much so that a typical case is doubtful. Hughes, on the basis of temperature curves, has described 3 types—the malignant, the undulatory, and the intermittent. He also notes an ambulatory form, along with mixed and irregular varieties. The onset is gradual, the initial symptoms being malaise, mild chills, and fever, most prominent in the afternoon. The fever is continuous, and in the course of a few days averages 103° F., the pulse being disproportionately slow. This may continue from 3 to 6 weeks, with a gradual decline, followed by a relapse with reappearance of the symptoms. Recurrent relapses over a period of several months are frequent, but are not as prolonged as the original fever. Anorexia, pains in the back and legs, and profuse night sweats occur at regular times. The symptoms are rarely as severe as the temperature would indicate, a distinguishing feature of this disease. The spleen may be palpably enlarged. Insomnia may be difficult to control. In addition to secondary anemia, there is a leukopenia of 4000 to 6000 white blood cells, with a moderate lymphocytosis the rule. Leukocytosis is rare, and usually indicates a complication. The urine shows albumin and organisms. A positive blood culture is obtained only by the use of special technic.

Diagnosis.—There is no pathognomonic sign or symptom. The patient is rarely dangerously ill. The diagnosis can be made positively by one or more of 4 means: (1) The most reliable method is the agglutination test. This is reliably done by the State, or the National Laboratory at Washington. The agglutinins may appear within the first week, but testing in the second or third week is more reliable. As the agglutinins may remain in the blood stream for years, a history of previous febrile disease is important; (2) isolation of the organism from the blood, urine, and feces. The organisms are very prevalent in the urine in periods of acute illness; (3) animal inoculation, into the peritoneal cavity, of blood or macerated tissues; and, (4) the skin test, which is considered reliable, a definite specific reaction to intradermal injection of saline suspension of killed *B. abortus*.

Differential Diagnosis.—Undulant fever should be considered in diagnosis when the diagnostic criteria in febrile cases is not convincing, as in suspected malaria, tuberculosis, influenza, rheumatic fever, or bacterial endocarditis.

Prognosis.—The prospects for recovery are usually good, the mortality in different epidemics ranging from 2 to 13 per cent. A persistent temperature of 104° F. or over is considered a bad sign. Recovery may be expected if the first 10 days are survived, barring unusual complications. A period of prolonged weakness is to be expected, of which the patient should be warned.

Prophylaxis.—Transmission of the infection to man by means of milk can be controlled readily by pasteurization.

Treatment.—Essentially symptomatic. Nursing is most important. All excreta should be disinfected. Numerous dyes, as mercurochrome and acriflavin, have been tried and found wanting. Quinine and salicylates are of questionable value. Nonspecific protein therapy has been a failure. Dr. Simpson, Dayton, Ohio, states in a personal communication that favorable results have been obtained by the use of a specific vaccine obtained from the *B. melitensis*, which is now available through trade sources. A febrile reaction usually follows the injection, with an increase in the intensity of the symptoms, decreasing as a rule as the treatment is continued. An anti-abortion goat milk serum that is apparently effective during the first 3 months of the disease has been developed by the University of Cincinnati group.

In discussion R. H. McClellan stated that a physician may have seen 1 or 2 cases only, yet the literature is full of undulant fever, and Pittsburgh and Allegheny County must be filled with undulant fever; so it must be borne in mind. If the question of undulant fever comes up, look to the milk. James LeRoy Foster stated that in Pennsylvania the Bureau of Animal Industry is trying to eliminate *B. abortus*.

"Foreign Bodies in Food and Air Passages. Symptoms and Diagnosis," was presented by Ellen J. Patterson, who said in part:

The importance of the subject is indicated by the fact that, if undiscovered, a foreign body will sooner or later prove fatal; if diagnosed promptly, by means of endoscopy through the mouth, it can be removed and 98 per cent of the cases cured. Another fact of importance is that 75 per cent of the foreign body cases occur in little children, many of them under age 2. The initial symptom of all foreign body cases, whether the foreign body is swallowed or aspirated, is choking and gagging. In small children or infants it may be indefinitely undiscovered because unreported. After the initial symptoms there is frequently what Jackson calls

"the symptomless period" lasting from 2 days to 2 weeks or longer, which is the chief cause of overlooked foreign bodies.

The symptoms depend upon the nature of the foreign body, its location, whether loose or fixed, and whether obstructive or nonobstructive. Pain or other subjective sense of the presence of foreign body is not felt in the bronchi; rarely in the trachea, but in the esophagus, with each swallowing act. Children under age 2 cannot tell their sensations.

Roentgenograms should include the head, neck, and the trunk from the nasopharynx to the tuberosities of the ischia.

Foreign Bodies in the Larynx.—After the initial symptoms of choking and gagging, a foreign body in the larynx causes hoarseness, croupy cough, wheezing, aphonia, and, if it is obstructive, dyspnea and possibly asphyxia. Diphtheria is the disease most likely to be confused with laryngeal foreign body lodgement, and vice versa. While waiting for a complete diagnosis, it is wise to administer antitoxin.

The larynx may be very tolerant to the presence of a foreign body. The foreign body may pass through the larynx without causing symptoms, and also may be lodged in the larynx without discomfort.

Foreign Bodies in the Trachea.—This may be fixed or loose. Objects which pass through the larynx are rarely large enough to become impacted in the trachea. Cough is the most distressing symptom, usually paroxysmal, more frequent with a foreign body free to move in the trachea. Pathognomonic of foreign body in the trachea are the asthmatic wheeze heard with the stethoscope at the open mouth, together with the audible slap heard as the movable foreign body hits the undersurface of the vocal cords, and the palpatory thud felt over the trachea. If the tracheal foreign body obstructs both bronchi at the bifurcation, symptoms of obstructive dyspnea, cyanosis, and asphyxia may prove fatal. Absence of the preceding symptoms are valueless negatively.

Foreign Bodies in the Bronchi.—On the nature of the foreign body depend the symptoms, following the initial choking and gagging, which will appear. The reaction of the bronchial tissues depends upon the quality of the foreign body, and the degree of obstruction to drainage. A nonobstructive metallic foreign body may remain in the bronchi for months before producing any appreciable pathology, though ultimately serious. Obstructive foreign bodies cause atelectasis, drowned lung, and eventually pulmonary abscess.

Vegetable foreign bodies such as peanut kernels, beans, and watermelon seeds cause at once violent laryngotracheobronchitis, with toxemia, fever, cough, etc., the gravity and severity being inversely to the age of the child, and quickly prove fatal unless removed or expelled. Following the symptomless period in a small child, there may follow acute illness with a septic type of temperature, as high as 104° F. with marked toxemia, erroneously diagnosed as pneumonia. After about 10 days there is a remission of the temperature, and a few days in which the child appears normal, but followed by a repetition of the supposed pneumonia.

Bones and metallic foreign bodies, after months or years, produce changes which cause chills, fever, sweats, emaciation, clubbed fingers, incurved nails, cough, foul expectoration, hemoptysis; in fact all the symptoms of chronic pulmonary sepsis, abscess, bronchiectasis, etc. There are also signs which suggest tuberculosis, but the apices are normal and tubercle bacilli absent from the sputum.

The signs of diagnostic importance are chiefly those of partial or complete bronchial obstruction, though a nonobstructive foreign body may cause limited expansion. The most nearly characteristic signs are, limited expansion, decreased vocal fremitus, impaired percussion note, and diminished intensity of the breath sounds distal to the foreign body. Complete obstruction of a bronchus followed by a drowned lung adds absence of vocal resonance and vocal fremitus, thus often leading to an erroneous diagnosis of empyema. A foreign body at the bifurcation of the trachea will give signs in both lungs. There are 3 definite types all of which show practically constant physical signs in the earlier stages of foreign body invasion: (1) Partial bronchial obstruction by an object such as a nail which allows air to pass to and fro with some degree of retardation and impairs the drainage of the subjacent lung; (2) expiratory check-valve obstruction, which permits the passage of air in one direction only; and (3) complete bronchial obstruction (stop-valve) shows a limitation of expansion and physical signs of atelectasis.

Foreign Bodies in the Esophagus.—After the initial choking and gagging, there may be a subjective sense of a foreign body either constant, or more often, on swallowing. Odynphagia and dysphagia may or may not be present. Hematemesis and fever may occur from the foreign body or from rough instrumentation. Symptoms referable to the air passages may be present.

Foreign Bodies in the Stomach.—These usually produce no symptoms unless they get jammed in the pylorus, but most foreign bodies make many attempts before finally passing through the pylorus.

Foreign Bodies in the Intestinal Tract.—These usually pass harmlessly. If opaque they should be watched fluoroscopically. If a foreign body remains as long as 4 days in one location in the intestine, abdominal section is usually advisable. As long as the foreign body keeps moving the patient is safe. Perforation does not occur from direct puncture but from ulceration. Do not change the diet or give cathartics in these cases lest increased peristalsis result. Foreign bodies move along the intestinal tract best in normal intestinal contents.

Diagnosis.—The bronchoscopist needs the coöperation of the internist and roentgenologist for diagnosis. It is necessary to know the nature, location, and description of the foreign body. Fluoroscopy should be the first step in diagnosis, but a negative opinion should never be given without the study of films. The presence of radiopotent foreign bodies in the esophagus is determined by the use of a capsule filled with an opaque mixture. Roentgen ray just before bronchoscopy is necessary because sometimes the body shifts its position and sometimes the obtruder proves to be other than the supposed foreign body. Films must be interpreted by a roentgenologist familiar with foreign body work.

Ray P. Moyer, Director of Public Health of the City of Pittsburgh, addressed the meeting relative to the plan of the Department of Public Health for the diphtheria immunization campaign, particularly with regard to children of the preschool age. The department hopes to provide immunization material for the needs of the children of the city, and the state will supply it for those outside the city in the county. A report of each immunization done will be sent to the department, where it will be filed to give a means of checking up the effectiveness, duration, and general worth of prevention of this type. These files could be referred to in case of diphtheria being reported in the same family, neighborhood, or school.

After the scientific program Austin A. Hayden, secretary of the Board of Trustees of the American Medical Association, gave a brief talk and exhibited a motion picture portrayal of the various phases of the work of the American Medical Association, in its bureaus, councils, and departments. Very few of the members, comparatively speaking, have ever visited the headquarters of the Association in Chicago, and the motion pictures of the plant and activities were enlightening.

GEORGE R. HARRIS, *Reporter.*

CHESTER

Oct. 17, 1934

The meeting was held in Coatesville; dinner was served to the members and their wives and guests, numbering 47. The Executive Committee recommended the recent action taken at the State Convention in Wilkes-Barre, that all members of the various county medical societies entering into written contracts calling for the rendering of medical services should first have their contract approved by the board of censors of their county society. This recommendation was unanimously adopted.

A public meeting immediately followed in the auditorium of the Coatesville High School where a large audience heard Philip F. Williams, chairman of the Committee on Maternal Welfare of the Philadelphia County Medical Society, deliver an address on "Maternal Welfare and Infant Mortality." Dr. Williams particularly opposed unnecessary interference, mechanical or otherwise, with normal labor. The group was entertained by the Coatesville Community Chorus and the United States Veteran's Bureau Hospital orchestra, directed by Dr. Appleton H. Pierce.

Mr. Williamson of the Tuberculosis Society presented motion pictures on the subject of "Appendicitis Mortality."

JOSEPH SCATTERGOOD, JR., *Reporter.*

DELAWARE—EASTERN BRANCH

Oct. 23, 1934

The meeting was held at Oakmont. The guest speaker was Carl Schmidt, professor of pharmacology at the University of Pennsylvania Medical School, who spoke on "Recent Advances in Drug Therapeutics." He said in part:

This age probably will be known in years to come as the "Hormone Age." Cortin, derived from the cortex of the adrenal gland, is supposed to increase resistance to infectious diseases and may be of value in cases of nervous and mental fatigue and the muscular dystrophies. The anterior pituitary is like a telephone exchange for the entire endocrine system. The anterior lobe is the important one, as it contains at least 5 different secretory substances, 3 of which have been separated. One hormone affects growth, one affects sex, and another alters the complex of thyroid diseases, especially exophthalmic goiter. There is also a hormone controlling the function of the pancreas and one controlling the growth of the mammary gland. Experiments made on animals proved that the giving of such a hormone to males will produce lactation. The practical application of the hormones from the anterior pituitary lobe is restricted at present as the overproduction of such hormones is greater than the underproduction.

Any hypnotic is a habit-forming drug. The fact that people have easy access through the drug trade to such drugs is to be condemned. Veronal is an old hypnotic, the effects of which are lasting as compared with the newer barbiturate preparations. Some of the newer barbiturate preparations can be used intravenously for the control of convulsions of tetanus and strychnia poisoning. With the aid of a respirator larger doses can be given to overcome convulsions, and experiments have proved that 7 times the lethal dose of strychnia have failed to produce death if prompt action is resorted to. The barbiturates are not strictly speaking hemolytic in action.

Agranulocytosis is closely related to the taking of such drugs as pyramidon, amidopyrene, and allonal. Dinitrophenol is a new drug used for reduction of weight. This drug came into notice during the World War in workers who were poisoned from the manufacture of munitions. This drug can produce agranulocytosis. It stimulates metabolic process about 200 per cent. Large doses produce high temperatures, convulsions, and death. Antidote consists in administering oxygen and reducing bodily hyperpyrexia by iced baths. It is unfortunate this drug has such a wide sale; it is easy to procure from druggists without an order from a physician.

Di-vinyl ether is being tried out at the University of Pennsylvania. It is very volatile, having a boiling point far below ether. It is very rapid in producing unconsciousness and relaxation—more so than ethylene, nitrous oxide, or chloroform. Consciousness is regained more rapidly than from other anesthetics. It can be given by the open drop method, except in the tropics and high altitudes, and requires no special apparatus. It is highly inflammable and adequate precautions should be taken. Damage to liver substance may be produced in anesthesia lasting for 3 hours or longer, but there is less likelihood of damage than from using chloroform. Only 2 deaths from liver damage have been reported from its use.

It is valuable in short anesthetics especially for office practice. Cyclopropaine gas should be given in a specially devised closed system; it is effective in amounts of 15 per cent gas content and is not dangerous. The price at this time is almost prohibitive. As to spinal anesthetics, the quinine derivatives are fast displacing the cocaine group in effectiveness and lasting anesthesia.

Violent stimulants to respiration include lobeline, nicotine, and oxygen lac. The effect produced is not by action on the centers of respiration, but by action on end-organs situated in the aortic arch and carotid sinuses, and is due to reflex action on these portions of the vessels.

In discussion, Dr. Harer stated that dinitrophenol had no place in diseases of the thyroid gland and could not take the place of thyroid gland extract. He asked Dr. Schmidt to speak on ephedrine, a drug he had worked on in an experimental way. Dr. Aitken inquired concerning the dose of ephedrine especially as it produces nervous symptoms. Dr. Fuller referred to a newer drug similar to ephedrine and asked as to the margin of safety of di-vinyl ether as compared to ether. Dr. McKenna stated that he had used dinitrophenol in small doses in selected cases with good results; he referred to the dangers of the promiscuous use of allonal, which he considers a dangerous drug. Dr. Sullivan spoke of a case of agranulocytosis in a man who worked at a gas service station, and wished to know if such association could be attributed to being a

causative factor in the disease. Dr. Bencker inquired concerning refrigerant gases and their effect on humans.

In closing the discussion, Dr. Schmidt replied as follows: The sulphur and ammonium gases used could be harmful, but fortunately are so irritating to the nose that they are easily detected before damage is done. Ordinary gas handling is not dangerous, but gases known to contain benzol might have some part in producing a blood hemolysis. He gave figures as to the comparative safety margin of ether and the newer preparations. As to ephedrine, he traced its origin and told of the work on the crude drug, with the production of an alkaloid which had been named many years ago by a Japanese research worker.

After the meeting adjourned the members were entertained by the Woman's Auxiliary.

AUGUSTUS H. CLAGETT, *Reporter.*

ERIE

Oct. 9, 1934

The meeting was held at Hamot Hospital. President Frank B. Kimmel, presided.

Russell L. Haden, of the Cleveland Clinic, was the guest speaker. He discussed the "Classification and Treatment of the Anemias." He said in part: The study of this group of diseases has always been active because of the presence of 3 conspicuous symptoms—fever, pain and pallor. There have been brilliant research developments during the past 25 years, most of them upsetting former traditional concepts.

Normal blood composition implies normal formation and normal destruction, since the erythrocyte lives usually but one month. One should think of the red blood cells in the circulating blood stream, spleen, and bone marrow as a definite organ with definite functions. With hypertrophy comes polycythemia, with atrophy (aplasia) comes pernicious anemia; changes in the constituent cells are responsible for other types of anemia. The total erythron, a name applied to the blood-forming organ, contains about 2½ liters of blood of which the red cells comprise one-half. In polycythemia the circulating blood may amount to as much as 8 liters; in aplastic anemias it may be as low as 300 c.c.

The laboratory study of the circulating blood tells quite accurately how much blood is present, how many red blood cells are present, the quality of these cells and their hemoglobin content, and how rapidly the blood is being destroyed and rebuilt again. The essential tests include the hematocrit determination, the red blood count, the hemoglobin content, the icterus index, and the reticulocyte count.

Anemias may be due to hemorrhage, excessive destruction of the red blood cells, depression of the bone marrow function, or a deficiency in the specific substance needed by the bone marrow in erythrocyte production. To grow red cells in the body, in addition to the chemical and mineral essentials, iron and liver substances are needed. With a deficiency of this anti-anemic factor true pernicious anemia results; with a deficiency in intake or utilization of iron, chronic hypochromic anemia is the result. This is the common disturbance that is associated with repeated iron loss due to repeated hemorrhage.

The treatment of hypochromic and microcytic anemias demands adequate iron administration as well as removal of the primary causes. It is the practice of Dr. Haden to use as much as 50 grains of Bland's pills daily. Dietary deficiency must be corrected and liver may be of some assistance. In macrocytic anemia (usually

pernicious anemia) liver and stomach therapy has been well established. Not only is this given by mouth, but parenteral injection is followed out daily for at least two weeks.

Nov. 5, 1934

The meeting was held in Erie. Sidney A. Chalfant, assistant professor of gynecology, University of Pittsburgh, read a paper on "Carcinoma of the Uterine Fundus." President Frank B. Krimmel in the chair.

Dr. Chalfant gave as his prime reason for discussing the subject of uterine body cancer the fact that so many undiagnosed and even unsuspected cases of this disease are encountered. All cancer of the uterus constitutes fully 30 per cent of the cancer incidence in women, and fundus cases represent fully one-fifth of the group.

Fundus cancer is commonly postmenopausal, but the author's series has included patients in their thirties and one age 70. Child bearing seems to play no particular part in causation. The incidence of fibroids appears to be no higher in fundus cancer than in women in general. An interesting observation is that most of the cases have been in the comparatively well-to-do; of 44 recent hospital cases 30 were in private rooms.

Bleeding, usually constant and not profuse, is the only early symptom; foul discharge always a late symptom, develops only after there is necrosis. In the majority of cases, curettage is essential in differentiating the diagnosis from benign conditions. Curettage is of much more value than it is a danger, and this danger can be mitigated by prompt therapy. Curettage should always be done.

Fundus cancer should not be confused with fibroids (they may be coexistent), for after the menopause fibroids should not cause hemorrhage. Roentgen-ray or radium therapy should not be employed in the treatment of a uterine condition which is thought to be benign until a diagnostic curettage has been done. The bleeding of chronic metritis is usually intermittent. Uterine polyps may cause the same symptoms as cancer, and so may cervical polyps; the latter may coexist with fundus cancer and curettage should be used to diagnose this condition. In 4 cervical polyp cases, fundus cancer was found. Hypertrophic endometritis can be differentiated by the microscope; it does not occur after the menopause.

Uterine body cancer is adenocarcinoma and varies from the adenoma malignum to the completely undifferentiated, highly malignant type. Curettage specimens are not suitable as a rule for careful pathologic grading. Prognosis will depend not only upon the grading of the lesion but also upon the duration of the disease. Late metastasis probably is the reason for the relatively good prognosis as compared with internal cancer elsewhere.

Therapy is divided into 3 accepted methods: complete hysterectomy, radiation and surgery, and radiation alone.

If the case is to be treated surgically, complete hysterectomy with double salpingo-oophorectomy should be done, preferably by the abdominal route. Simpson's technic is followed: After the curettage, the cervix is closed with continuous suture, and the vagina is resterilized. The cervix is amputated with the cautery, the dissection being carried up to the level of the uterine artery. The abdominal procedure is then done in the orthodox manner. Drainage into the vagina is frequently done.

In recent years, radium therapy has in many cases been used, the hysterectomy being delayed until about 6 weeks later. Radium has been used alone in the

cases where surgery has been refused or contraindicated. The disadvantage of its use as the sole agent is that its exact location within the uterine canal cannot be accurately determined, nor is the exact location or size of the malignant tissue known for a certainty.

In conclusion: Carcinoma of the fundus uteri comprises 20 to 30 per cent of all cases of carcinoma of the uterus; it is a disease of advanced life, most frequent after the menopause; the only early symptoms are bleeding and occasionally discharge; definite diagnosis usually requires curettage; radical operation should follow curettage immediately unless radium is used; preliminary radium treatment with radical operation after 6 to 8 weeks may give better ultimate results than operation alone.

In discussion, C. G. Strickland, Erie, stated that uterine body cancer is slow of growth, slow of invasion, and slow of metastasis. The curet is essential for accurate diagnosis in all uterine bleeding after age 30. Before the menopause, cancer must be ruled out; after the menopause, the diagnosis is presumptive and needs to be but established. In the premenopausal group and in those at the menopausal age who complain of excessive and frequent menses, thorough vaginal examination is imperative, to be followed by curettement if necessary. Surgery alone has proven more effective than radiation alone. O. N. Chaffee, Erie, emphasized that early diagnosis is essential for adequate treatment to be instituted. Education of the laity and the nursing profession would bring a closer understanding of the earliest symptom—bleeding. Radium alone has been effective in a group of aged women, 4 past age 70 already having survived a 4-year period. George A. Reed, Erie, stated education of the laity is essential in control of all types of cancer, and especially is this true in uterine cancer. The fact that the menopause is not normal, when excessive menses or too frequent menses occur, should be emphasized. Too many of the cases when seen have already developed pain, an indication of late involvement.

Ralph D. Bacon, Erie, emphasized that postmenopausal bleeding should be considered carcinoma until proven to the contrary. Treatment must depend upon when the diagnosis is made. Of 30 recent cases, 6 were diagnosed by section of the already removed uterus. In these cases, thorough roentgen therapy is advisable if the patient is young, or if the lesion is highly cellular and actively invasive. In the cases diagnosed clinically or by curettement the ideal procedure is intra-uterine radium, followed in 6 weeks by surgical removal. Supplemental use of roentgen ray will depend upon the microscopic picture and the age of the patient.

In closing Dr. Chalfant said the normal menopause is not associated with excessive menses nor too frequent menses; this point is worthy of emphasis, and has not been sufficiently publicized. Accurate diagnosis of bleeding cases demands the frequent use of the curet in all doubtful cases.

RALPH D. BACON, *Reporter.*

LACKAWANNA

Oct. 9, 1934

A motion picture prepared by Joseph B. DeLee of Chicago, "Normal Labor," was shown.

Oct. 16, 1934

President Walter W. Propst presided. Major William H. Best, acting commissioner of health of New York City, delivered an address on "Public Health, Past, Present and Future."

He has been long intrigued by the old Mosaic laws regarding infectious diseases, which certainly were public health rules. It is interesting to note that the medicine of the early Egyptians was for the most part curative, while the medicine of the early Hebrews was preventive. Their laws were cut and dried, without hope of discovering causes, cures, or new preventive measures, whereas ours are constantly amenable to revision based on medical discovery; theirs were based on a blind acceptance by the public of priestly dictum, ours upon the understanding and intelligent coöperation of the public.

The Dark Ages practically wiped out the water-supply and sewerage systems that the Romans had established. Europe emerged from the Middle Ages with a definite means of combating infection; namely, isolation and quarantine. Call it a re-discovery of an old Hebrew public health custom, call it the beginning of our modern practice; it was, and still is, one of the fundamentals of our public defense against infection.

It may seem strange to us that medical men in those days, and for centuries later, believed that disease was spread from the sick to the well by some strange emanation which could not be seen.

After several abortive attempts, state legislation was secured creating a Department of Health in New York City in 1866. The newly-formed department consisted of only 2 bureaus, namely, the Sanitary Bureau and the Bureau of Records; and naturally the most important functions were entrusted to the Sanitary Bureau. It is regrettable that those were the days of a sort of schism between the health department and the majority of the medical profession. Sincere as these physicians were, it is unfortunate that this schism should ever have come about. It is unfortunate that certain echoes of that schism still persist in other lines of health activity. A department of health cannot do its work without the great body of private physicians, and the private physicians can gain a great deal from the work of a health department. When the health department and the private physician disagree, the effect on the public is much the same as the effect on a child whose parents continuously disagree.

To say that public health activity, which prevents people from getting sick, actually brings more business to the private physician may seem to be a paradox. But what really happens is that every person whose life has been spared through improved public health becomes potentially a patient for the physician—not a sick, not a dying, not a dead patient, but a living patient who needs year in and year out the guidance that only the modern physician, trained in preventive medicine, can give. To get better health people must put themselves under the care of a physician. In other words, a health department should be the ethical press agent for the private physician. The other side of the picture, however, is that the physician must be ready to give these patients the care they have been educated to receive. And in this enlightened coöperation on the part of the private physician trained in preventive medicine lies the hope for public health of the future, as well as economic security for the physician of the future.

Our greatest battle against most of the infectious diseases will be won within the next few generations. This means that more children should grow up, more young people reach middle age, more middle-aged persons reach old age. The ills that come to this aging population are the ills that the private physician alone can handle effectively. In the final analysis, the advance of

public health in the future will be possible only when everyone has a doctor to whom he can turn for guidance in health as well as for help in sickness. Therefore, the physician of the future must have the viewpoint of preventive medicine. He is the most important health officer of all, because he deals directly with the people.

During the general discussion, Major Best also said: Financial problems are the greatest worry. The budget in New York City is 63 cents per capita yearly, or about 4 million dollars. But, except in the face of a pending epidemic, this yearly appropriation is raised with difficulty. The placard system of quarantine is not much used in New York City. It has been found through much experience that if the people will not obey quarantine without the card, they will seldom obey it otherwise. All contacts are quarantined 12 days, cultures taken, and releases given, if negative. Cases of scarlet fever are quarantined 21 days, if uncomplicated. There have been less than 1 per cent of secondary cases reported after 21 days. Pertussis is a nightmare to all health officers. No one knows how to prevent it. When in doubt, it is best to exclude a child from school until the "whoop" ceases. Many good regulations have been advanced but they are seldom carried out. The Park vaccine has been used with good results—4 injections at 3-day intervals—particularly in institutional immunization. Scarlet fever toxin cannot be given with impunity, as there have been too many untoward reactions obtained. Some good results have been obtained with Park scarlet-fever toxoid. In measles inject whole blood. Little is gained by attempting complete immunity. It is not best to have an adult population with no immunity. Severe epidemics among mountaineers and farmers during the War were a result of lack of exposure to the disease. Where there are several cases in a family, inject parental whole blood, about 30 c.c., preferably from both parents. By injecting early in the incubation period, the patient develops a very mild form of the disease with a 24-hour fever, and yet obtains all of the immunity necessary for further protection.

Oct. 23, 1934

Major V. H. Cornell, curator, Army and Navy Medical Museum, Washington, D. C., discussed "Lesions of the Cardiac Conduction System."

Oct. 30, 1934

The largest and most enthusiastic audience of the fall season met in the auditorium of the Chamber of Commerce to hear Prof. David Adelsberg of the Eppinger Clinic, Vienna, who gave an address on "High Carbohydrate Diets in the Treatment of Diabetes." Dr. Adelsberg sketched briefly the history of diabetic treatment and said in part:

The optimum diet is that in which the liver cells contain an optimum amount of glycogen. Always remember that it is necessary to reproduce the physiologic condition by any type of special diet. Then when the patient has acquired the normal amount of insulin in the body by means of injection, he is enabled to utilize the physiologic diet, which is roughly 60 per cent carbohydrate and 40 per cent protein and fat. Both the working classes and the well-to-do take practically the same proportionate diet.

The optimum diet for the diabetic according to the most recent determinations is one high in carbohydrate and low in fat. This high carbohydrate diet is covered by an appropriate amount of insulin which, at first, is of necessity large in amount; according to the old insulin-

glucose ratio, one unit of insulin covered 2 grams of glucose. In a diet of 250 gm. of carbohydrate, 60 gm. of protein, and 80 gm. of fat, it is necessary to furnish 120 units of insulin for the first 10 to 14 days. Then, there is a paradoxical change and a gradual diminution in the insulin requirement to the point at which many patients need only 30-60 units of insulin daily for this same diet. Thus the insulin-glucose ratio may increase to 6, 8, or even 10 gm. of glucose for every unit of insulin injected. This has been repeatedly observed in the Eppinger Clinic, and by Sansum, since 1928, in the United States.

The objection to this treatment has been the somewhat demoralizing effect of suddenly imposing a high carbohydrate diet upon a patient who has been carefully instructed to beware of such a dietary. Yet, the advantages of such treatment are many: Bodily and mentally, patients under this treatment are much better and stronger; it is much easier to handle children, allowing for growth; tuberculous diabetics do much better; there is not the usual progression of diabetes with the slowly increasing need for more insulin, in fact, it is possible to decrease the amount slowly; repeated studies have shown that the metabolism of these patients most closely approximates normal.

Adapt the diet to the habits of the patient. Every diabetic case must be treated individually. In the milder cases, it is frequently wise to give a low carbohydrate and fat diet with a moderate increase in the protein (F-60, CH₂O-70, P-120-150). Protein is 58 per cent carbohydrate. There is much advantage in the use of protein carbohydrate because it is developed slowly by intermediary metabolism and does not produce the immediate overload of the blood stream and hyperglycemia. Protein is also a more satisfying diet. Even in cases of hypertension, this diet has been used without untoward results. One of the most important results of these low fat dietaries has been the drop in the blood cholesterol values from 300-400 mgm. per cent to 150 mgm. per cent. It has been realized that this high blood cholesterol is undoubtedly the cause of the arteriosclerosis of young diabetics, and it must be remembered that most diabetics die today of vascular disease and not of diabetes. Young diabetics with high blood cholesterol show a predisposition to arteriosclerosis, intermittent claudication, coronary thrombosis, and even tuberculosis.

W. Emory Burnett, associate in surgery, Temple University Medical School, discussed "Pulmonary Suppuration."

FREDERIC B. DAVIES, *Reporter.*

LUZERNE (HAZLETON BRANCH)

Oct. 24, 1934

The meeting was held in the Corrigan Maternity Hospital. George A. Ulrich, clinical professor of obstetrics, Jefferson Medical College, considered the following in his talk on "Some Obstetrical Problems": Many patients have heard of twilight sleep, and ask that this method of analgesia be used to relieve them of all pain in their labor. It is not so old a method of analgesia as nitrous oxide and oxygen which was most popular in the latter part of the last century, and which is still favorably regarded. Twilight sleep has proved not to be advantageous in some cases, however, because of asphyxia in the infant and a tendency to hemorrhage in the mother. Later, Gwathmey's synergistic analgesia was introduced. This method of combined ether, alcohol and quinine by bowel, with magnesium sulphate

hypodermically, cannot be used before there is considerable dilatation of the cervix, because it frequently stops labor. It also seems to give rise to increased bleeding in the mother.

Many men in various institutions are very enthusiastic about the barbiturates, such as nembutol, 6½ or 7 grains. This, while satisfactory from the patient's point of view, since it produces amnesia, is by no means the best answer to the problem of painless labor, due to the excitability and activity it may stir up. If a barbiturate is used, the excitability may often be allayed by the use of scopolamine, nitrous oxide, or even ether, or by an extra dose of the barbiturate which will knock the patient completely out. Personally, Dr. Ulrich does not like it for its excitability when used moderately, and for its complete knockout action when given in very large doses. No ideal method of analgesia is known; all have their disadvantages.

When anesthesia is needed, ether is generally used, and is most popular. Nitrous oxide and oxygen, after preliminary narcotization with nembutol also can give satisfactory anesthesia. Spinal anesthesia has no place in obstetrics. Caudal anesthesia has been tried, but has many disadvantages.

Mortality in obstetrics is a great problem. A study was made recently in Philadelphia because obstetrical mortality is no less today than many years ago. This study seems to show that prenatal care is most important, since over one-half of the fatalities were in women who did not seek or have prenatal care. Physicians are held responsible by this report when they failed to examine and recognize ectopic pregnancies, or when pelvic deformities were not recognized. In other words, when prenatal care was sought by the patient, and when the patient died as the result of abnormalities not being detected by examination, the physician was indicated to be at fault. Furthermore, the doctor was held responsible when abnormalities or complications were not properly managed or treated. Included in this was the deciding upon the proper time at which to interrupt pregnancies. Many cases were noted in which physicians delayed in emptying the uterus in placenta previa or premature separation. Physicians were also considered to be at fault in all anesthetic deaths, in cases of sudden shock when measures to combat shock were not at hand, and in all cases where the physician delayed or was incapable of, or unprepared to handle complications.

Over one-fifth of the total deaths studied were from septic abortions. Of patients dying as a result of operative measures, many died following cesarean section. But the great majority of these were deaths after emergency section, and very few were deaths following elective section. This should emphasize that the physicians must examine patients prenatally and determine in advance whether section will be indicated. Thus a great many emergency sections will be converted into elective sections, and the operations done before the patients are critically ill. Thus operative mortality can be reduced.

In general the survey shows that the mortality is too high. It also shows that a great many women are dying of sepsis, and that these deaths are largely the fault of the physician, and therefore preventable.

In studying deaths of babies, there are records to show many deaths from intracranial hemorrhage. Not all cases of intracranial hemorrhage die, however. The diagnosis is made by the following signs: Intermittent cyanosis, difficulty in nursing, tetany of the Jacksonian type, dysphagia, and paralyses. Treatment should in-

clude injection of blood to improve bleeding and coagulation time. Not all such cases are due to forceps, but many are from pressure from difficult labors, and many such are from breech presentations. In cases of breech labor, the chief of staff should always be called for the delivery, if possible, rather than have the intern or even the chief resident handle the situation. The best management is either to let the patient deliver alone, without interference, or to perform full anesthesia, rather than partial, before intervention is done.

In discussion, L. G. Wetterau requested the speaker's views regarding diagnosis of early pregnancy. J. R. Dyson commented on religious organizations' most recent views on contraception, and asked the opinion of Dr. Ulrich regarding the so-called safe period. D. A. Johnston reported a case of prolonged labor in a woman who had had cesarean section done previously. Rupture of the uterus resulted with the present labor. This was diagnosed before operation. At operation the diagnosis was confirmed, hysterectomy was performed, and the patient is making a good recovery. He stated that the Hazleton State Hospital does not favor the use of the barbiturates in obstetrics for the same reason which Dr. Ulrich noted, namely the excitability which they cause. Lawrence Corrigan outlined the prenatal care as practiced in the Corrigan Maternity Hospital, and urged its diligent application in an effort to reduce mortality. He stated that the Corrigan Hospital used barbiturates occasionally, but only most conservatively. John Corrigan discussed the mortality record of the Corrigan Maternity Hospital; in the 1365 cases delivered there since the hospital was established, there were only 11 maternal deaths, and none of these were directly attributable to the act of delivery. The causes of death were: Influenza, 3; pulmonary embolism, 2; late toxemia of pregnancy, 3; brain tumor, pneumonia, and heart disease, 1 each. G. B. Dornblaser asked for the best treatment for placenta previa. S. A. Everett described sudden death of the newborn occurring in 2 successive pregnancies and asked opinion as to cause. M. H. Kudlich discussed labor's failure to occur in the time figured for it, and asked when induction should be done.

In conclusion, Dr. Ulrich stated that the Aschheim-Zondek and Friedman tests are fairly accurate in the diagnosis of early pregnancy. Their greatest field of usefulness should be where differential diagnosis is necessary between ectopic pregnancy and tubal disease, and between retained secundae of abortion and hemorrhagic endometritis. The safe period in a woman's menstrual cycle varies with different individuals, and therefore cannot be considered safe at all. Sudden death in the newborn may be due to an endocrine dysfunction, but more often is caused by trauma to the infant resulting from difficult labors. When a woman goes beyond the scheduled time, there is generally a miscount on her part. This counting must be rechecked first of all. If induction is done, the medical method of castor oil, quinine, enemata, and then pituitrin minims iii, to be repeated 2 or 3 times, is the best, and much to be preferred to rupture of the membranes. Placenta previa of the central type is best treated by cesarean section, except when the patient is too shocked; then transfusions and fluids to combat shock are indicated, to be followed by operation as soon as feasible.

P. E. Fagan reported a spectacular case. On August 15, he was called to deliver a woman, and delivered the first of twins, an eight-month living fetus. On September 15, he was called again, and the second twin,

nine months in size, was delivered. Both twins and mother are perfectly well. There were no other complications. The second twin born is larger and better nourished than the first. He offered no conclusive explanation of this phenomenon of birth.

Nov. 14, 1934

The meeting was held in the Elks' Home in Hazleton. The scientific program was devoted to an address on "Otorrhea," by Abram H. Persky, of the Otolaryngologic Staff of the Graduate Hospital of the University of Pennsylvania. Avoiding ultrascientific points, Dr. Persky emphasized the following practical suggestions, saying:

Successful treatment is more than mere wiping away of the discharge and the instillation of a few drops of some medicated oil. Causes must be considered first. Whatever they may be, the infection of the underlying otitis always originates in the nose or nasopharynx, and passes by way of the eustachian tube to the middle ear. Among the causes may be included the common cold, acute rhinitis, coryza, acute infectious diseases (as measles, scarlet fever, influenza, diphtheria, pneumonia,) sinusitis, diseased tonsils and adenoids, bathing or diving in the ocean or infected pools, forceable blowing of the nose, nasal douching, and operations on the nose and nasopharynx. The prevailing organisms are the streptococci, pneumococci, pneumococci III, diplococci, staphylococci, and the *B. pyocyaneus*.

Chronicity of middle ear disease may be attributable to any of the following: Neglect of an acute attack; involvement of the ossicles with necrosis; development of cholesteatoma; or tuberculosis. If mastoiditis accompanies the disease, the discharge will cease if the mastoid infection is properly drained. If purulent otitis persists after mastoidectomy, it indicates that some of the infected cells could not or have not been properly drained.

The perforation in the ear drum may be very small, or large enough for one to look directly into the middle ear cavity. This latter is especially true in the more chronic ear discharges since the longer the discharge, the greater the tendency for a larger perforation.

In treatment the first principle is cleanliness of the external canal, not only to permit freer drainage, but also to prevent secondary infection and excoriation of the auricle and canal. It may be well to use drying drops such as boric acid powder grain xx to the ounce of 50 to 70 per cent alcohol, or in children 25 per cent alcohol. Dry boric acid powder insufflated into the canal is efficacious. Another treatment is the dry or wick method. After cleansing the ear canal a small wick of sterile gauze is inserted into the canal to impinge on the drum. This should be changed and the ear cleansed every 12 to 24 hours, but the method is not advised in acute infectious diseases, in chronic suppurative otitis media, or when symptoms of mastoiditis are present.

The author has not had striking success with the use of antiseptic and dye disinfectants such as mercuriochrome, metaphen, acriflavine, hexylresorcinol, and gentian violet. Irrigations with warm boric acid may be used, but are of doubtful value and sometimes dangerous, even if done with very low pressure.

Possibly the most important adjunct of treatment is investigation of the nasopharynx for adenoids, and removal of adenoid tissue if found. Together with this, treatment should include shrinkage of the eustachian orifice by cocaine, ephedrine, or both, followed by a colloidal silver salt. After outlining other methods of treatment whose successes have been variable, such as

Sulzberger's iodine dusting powder, the zinc ionization method, Credé, and ether, consideration of the resistance of the individual was emphasized. Lowered resistance must be restored before the patient can be cured of the infection. Recourse is taken to hematinics, cod liver oil, balancing of the acid base of the diet, insulin in small doses, quartz lamp therapy, vaccines, and non-specific protein therapy. It is important to coöperate with the pediatrician or internist for their able assistance.

Prevention of deafness was stressed, and the value of the classical symptoms of mastoiditis were detailed.

In discussion F. C. Eshelman said that especially difficult to the otolaryngologist is the otorrhea seen after scarlet fever, due to very large perforations which never seem to heal. John J. Dailey considers that cleansing is most important of all in the treatment of otorrhea. Success with antiseptic preparations may fail, as the essayist said, but will work if treatments are persistent and frequent. Arrangements must be made for someone in the household to give instillations as often as 4 or 6 times a day. Resistance is most important of all. All the running ears he has seen have been in patients below par constitutionally. Therefore ask assistance of the internist. J. S. Crater asked if treatment in children varies from that in adults because of the different anatomical structure and position of the ear drum. Dominic D'Angelo asked what is the best anesthetic in children and adults (for incision of the ear drum). The danger of irrigation is probably not as bad as formerly supposed. Recently in Boston methylene blue was injected into the ears of cadavers under pressure, and none was found in the mastoid cells. G. B. Dornblaser asked the treatment of early mastoiditis when surgical mastoiditis was not expected to follow. Lawrence Corrigan asked the speaker's experience with certain oily antiseptics; Dr. Persky had had no experience with these. W. V. Coyle said that since so many treatments are mentioned it must mean that none of them are perfect. It is most important to prevent chronic otorrhea, and our duty is to make wide and free incision of the ear drum early in cases of pent-up infections of the middle ear. Glycerine and phenol for local anesthesia and relief is efficacious, not so much because of the effect of phenol, but for the fact that when it is put in the ear warm, glycerine retains it heat longer than any other substance.

In conclusion Dr. Persky stated: Wide open drums of scarlet fever are best treated by preventing secondary infection, and keeping drainage at its best. To stimulate closing of perforations, chromic acid beads or trichloroacetic acid is used to touch up the edges; or an artificial ear drum may be used. Adenoidectomy may be needed to remove the source of infection. He emphasized the value of cleansing. No anesthesia is needed in the infant. If the child is over age 4, general anesthesia is needed, such as a few whiffs of ethyl chloride. Cocaine, phenol, and menthol, in equal parts, on a pledget of cotton, is the best anesthesia for the adult; this is held against the drum for 5 to 10 minutes. Postauricular tenderness with mastoid periostitis subsides easily after incision of the drum. Local heat is used in the postauricular area.

JOHN M. DYSON, *Reporter.*

LUZERNE

Oct. 17, 1934

The meeting was held in the Medical Building with President Bixby presiding. Dr. Stapinsky, Glen Lyon,

was elected to membership. Francis F. Borzell, Philadelphia, read a paper on "Medical Economics and Social Insurance."

He said in part: Webster defines economics as "The service that investigates the conditions and laws affecting the production, distribution, and consumption of wealth or the material means of satisfying human desires."

Medicine is the science which deals with the cure and prevention of disease, whether physical or mental. Medical economics, therefore, deals with the conditions and laws affecting production and consumption of medical services or the means of satisfying human health desires. The intricacies of modern health services so involve the physician as the source of all health service and the public as a consumer that the term "Medical Economics" has come to include public health activities, social welfare, and service industrial medicine, etc.

The medical profession is confronted with the necessity of not only defending its own integrity but is called upon to defend the public against influences that tend to destroy.

The purpose of those bending their efforts to some form of compulsory health insurance is supposed to be: Adequate medical service for all, having in mind those in the lower income brackets; and adequate financial return for the doctor. They recognize the fact that the doctor is underpaid. A careful analysis of schemes presented fails to demonstrate any improvement in the average doctor's income nor is there any improvement in the quality of health service nor lowering of the morbidity rates.

There is evidence to the contrary. Back of all this is an effort to maintain and perpetuate an industrial system that has been inadequate. The health insurance of Europe has failed to eliminate the charlatan. No provision in these systems is made for unemployment, indigency, or chronics. The problem is that of insufficient incomes wherewith to meet services, and not of faulty distribution of medical services.

The 10 principles adopted by the House of Delegates of the A. M. A. at its last session were stressed.

We have good reason to anticipate there will be attempts at compulsory health insurance legislation. We must plead with our legislators that they consider it in the light of economic effect, the social effect on health and morale, and the effect on the continuance of professional integrity and improvement of medical service. In closing, he quoted "Let us oppose State Medicine and Compulsory Health Insurance to the very end and resist the efforts of the Foundations through the lay workers to foist these unpractical yet destructively expensive schemes upon the public. The socialization of medicine in the United States will spell ruin to the advancement of and eventually will supply the lowest type of medical care. The plan in Austria and Hungary is unsatisfactory and mediocre, the lot of physicians a sordid one and the spirit of the profession is broken, and this state of affairs is the same whether the plan has been in effect few or many years."

In discussion J. J. Kocyan said the medical profession, during the first 3 years of the so-called depression, went along and took care of the indigent without pay and without question. When the number of families on relief were tabulated, the magnitude of the load carried by the medical profession was realized. The poor boards attempted to give some help to the medical profession which was comparatively little. Then the State came forward with help to the medical profession which is still too small to compensate for the amount

of work done. Consequently there have been offered schemes to help the medical profession all of which have strings tied to them. The problem is one between the doctor and patient, because the doctor has always been ready to help the patient as he should be helped. W. J. Davis asked if Dr. Borzell knows of any way in which the physician will be paid (Emergency Relief). R. R. Janjigian asked what should be the attitude of the Society toward the one-dollar fee allowed on the Emergency Relief?

Charles Long stated that the dissatisfaction is not alone with the medical man but among the patients. The physicians in England and on the Continent are swamped with the number of patients to be seen every day. The doctor knows it is hard and difficult to give proper service. The patient knows he is being cheated and the doctor knows it. There is not a patient who would not rather have private treatment but under the laws of these countries he cannot have it. G. E. Baker asked what effect the acceptance by the profession of medical relief will have on the advent of socialized medicine in our own state.

F. F. Borzell, in closing, said there is no question that every medical man has a grievance in this state because the Federal Government has not carried out its contract. Today the medical profession finds itself as an army fighting another army where the second army retreats to draw the first army into position for defense. It was the original idea in Washington, so stated in Federal Code No. 7, that the physician should receive compensation. The American Medical Association insisted on free choice of physician and secondly that the medical profession should have complete control of its own members all down the line. The next question was the amount to be paid. They estimated that 3 per cent of all moneys allocated for relief should be given for medical relief. Of the original \$10,000,000 allowed to Pennsylvania, a certain amount was diverted to other relief and consequently only \$4,000,000 was left, of which 3 per cent was to be allowed to the physicians, dentists, and nurses. Consequently, there actually was no money for medical relief. Drs. Mayer and Miller state that \$100,000 extra has just been found and will be available to pay at least part of the current bill.

In Philadelphia a group of economists is preparing to put the indigent under the care of doctors paid by the poor boards. To meet the movement we must plead with the doctors today for the sake of the future of medicine and for the sake of a system that exists today, however bad it may be, we would plead that you take your money and go along. The organized medical profession is accepting this present plan only as an emergency and for the indigent. Remember that state medicine looks for the care of those employed and on salary.

Oct. 31, 1934

The meeting was held in the Medical Building, Wilkes-Barre, President E. W. Bixby presiding.

Waltman Walters, Mayo Clinic, Rochester, Minn., delivered an address on "Treatment of Obstructive Jaundice and Its Complications." He said in part:

Liver function and its relationship to disease is important. The life of a patient is dependent upon the degree of the infection and the function of the liver. Deaths are mostly due to insufficiency of the liver.

It is of exceeding value to ascertain preoperatively the hepatic function, which is determined by: The appearance of the patient (note whether the jaundice is

deep or slight); ascertain the quantity of bile pigment in the blood serum (a person highly jaundiced will have a high blood serum test); and, estimate the coagulation time of the blood. This is increased if jaundice is deep. There may be variations of these—a normal coagulation time with deep jaundice which is a good sign.

At operation the condition of the liver should always be noted. Normally it is a purplish brown. If there is disease it will range from this to chocolate brown to a green. Also, if there is obstruction, the liver lobules will stand out in punctate spots and the sharpness of the liver margin is lost.

Normally, there is excreted in 24 hours 300 to 600 c.c. of bile but in disease of the liver there may be excreted 3 to 4 times this amount. In order to make up this fluid loss plenty of fluids must be introduced by all possible avenues. Intravenous clysis is one of the most valuable means in treatment. All shades of bile are seen to a green, milky substance, or even colorless fluid, which gives a poor prognosis.

The estimation of the chlorides, urea, bile pigment, and bile salts is important. If the chlorides are greatly reduced they must be brought to nearly normal.

If jaundice is present we must learn if it is intra-hepatic or extrahepatic. With the former, there is no pain, the stools are normal, and there is no distention of the gall bladder. With the latter, the stools are clay colored, there is distention of the biliary tree and distention of the gallbladder which can be palpated.

Pain is usually due to sudden obstruction as with carcinoma of the head of the pancreas. If pain is present it is usually due to a stone or a stricture. If the latter occurs it usually is the result of trauma, as a previous operation or an adenocarcinoma.

Often at operation no stone is found. Ten per cent of these cases of obstructive jaundice have no stones but there is found inflammation of the liver and pancreas. Removal of the gallbladder will cause a cessation of the symptoms. If carcinoma of the head of the pancreas is found, do a gastro-enterostomy, which operation usually adds one year to the patient's life. If a patient is very ill and in poor condition, delay operation and conditions may clarify themselves. They usually will not stand an operation anyway when in a serious condition. Always examine the common bile duct, and open and explore it for presence of stones and inflammation.

In discussion, Dr. Sheridan asked why was jaundice present in 60 per cent of the cases of carcinoma of the liver. Frank M. Pugliese asked the reason for death in cases where an operation was simple, all possible was done, and at necropsy nothing was found. Dr. Janjigian asked the percentage of glucose to be used and how often; the use of whole blood or citrated, which is better? L. M. Cattanaach asked why it was that a patient may go into shock in giving transfusion after operation when the blood of the donor matched with the recipient perfectly before operation.

In closing the discussion Dr. Walters said that some of the questions could be answered only in the light of experience. Occasionally nothing is found at necropsy and so the exact cause of death can not be told. The causes of death are divided into those with no jaundice and those with jaundice. In those with no jaundice the death is due to ligation of the hepatic artery, which may happen without one being aware of it. Those with jaundice—nothing is added to the solution of this and nothing is found at necropsy. It is

not known why a patient should have a reaction with transfusion after operation and none before when the same donor is used. A special type of glucose rather than the U. S. P. is used and still there are some reactions and no one knows why. Ten per cent glucose with normal saline is used with the intravenous drip method, giving 1000 c.c. in one-half hour in the morning and repeated in the evening. The indirect citrated method of blood transfusion is better than the direct method because it is easier, simpler, and causes fewer reactions.

Nov. 7, 1934

The meeting was held in the Medical Building, Wilkes-Barre, with President Edward Bixby presiding.

A paper supplemented by lantern slides was read by Robert S. Dinsmore, of the Cleveland Clinic, on "Results in Malignant Disease."

He said in part: In cancer of the lip the lesion is usually a squamous cell, occurring mostly in the male and usually on the lower lip. Treatment consists in the use of radium, roentgen rays, or surgery. The lesions, which have an everted edge with a rough, uneven base, are either basal-cell or squamous-celled carcinoma. They are cured by any method one wishes to use, even arsenic paste. Another which is more widespread is that with a scale over the surface, bleeds freely, has the appearance of a red wart and is a precursor of the true cancer. Radium is the best treatment. If it is used and the lesion does not promptly disappear resort to operation. Excision with a block dissection of the glands of the neck should be done. Many patients have positive Wassermann reactions; so do not treat the syphilis too long believing it to be syphilitic and not an associated carcinoma. A tuberculous ulcer is thin and overhanging with a grayish slough.

Tumors of the antrum are noted by pain and fullness in the affected side of the face. In sarcoma there is swelling under the eye with pain, and enlargement of the cervical glands of that side. These kill the patient by direct extension. Often there is hemorrhage into the nose. Fine crackles are felt beneath the fingers on palpation. Treatment consists in opening the antrum, curetting, introducing radium into the cavity, and allowing the cavity to remain open for 2 years for treatment from time to time.

Carcinomas of the tongue are more common in England and France than here; the lesion is squamous cell and usually on the lateral aspect of the tongue, though occasionally found in the midline. They have hard-rolled edges, bleed freely, and usually begin in the region of a snag of a tooth. Ligation of the lingual artery, with partial resection of the tongue, under local anesthesia, is the treatment of choice.

The commonest lesions of the neck are the round-celled sarcomas which often disappear with roentgen-ray treatment. If they reappear roentgen ray will be of no value.

Hodgkin's disease is generalized glandular enlargement with anemia and emaciation. The cervical glands are the first to enlarge, then the inguinals, axillary and mediastinal. Little is known about this disease and the prognosis is usually fatal. Roentgen-ray therapy helps some. Early diagnosis is important in all tumor lesions.

In cancer of the larynx the chief symptom is chronic hoarseness. Sometimes one vocal cord can be removed and the patient gets along well. Some must have a laryngectomy. These are found usually in men.

Tumors of the thyroid. For every 1000 cases of thyroid tumors 30 to 40 are malignant. They are classified: Sarcoma, a. lymphosarcoma, b. spindle cell; sarcoma-carcinoma; and, carcinoma of all kinds. The malignant adenoma develops in the benign adenoma. Growth may be either rapid or slow. The history in these cases is usually of a long-standing goiter and after middle life there is a sudden growing of the tumor with loss of weight and dyspnea. These comprise 90 per cent of all the tumors.

The papillary type has a bluish discoloration of the overlying skin. This has a better prognosis. Fifty per cent are alive after a 5-year period. Metastasis to the lungs is common from the thyroid tumors. Roentgen ray of the lungs is essential in most of these cases.

In breast tumors the late symptoms and signs should not be waited for in treatment. A small hard lump in the breast always should be removed.

Malignancies of the gastro-intestinal tract and uterine fundus have the best results with operation. If the cervix only be involved, then radium is the best treatment.

Whenever the diagnosis of cancer of the stomach is made by roentgen ray it is assumed that the lesion is larger than anticipated. One which infiltrates the muscle is difficult to operate upon. Resection of the stomach is quite necessary in these cases. As they are not emergency cases the general health must be improved by intravenous glucose, *etc.*, to reduce emaciation. It is considered now best to do a one-stage operation in all cases.

If carcinoma of the rectum is suspected a digital examination should be made; use a light if no nodules are palpable and lastly give a barium enema and take roentgenograms.

Should a physician tell a patient he or she has cancer? The percentage of good results obtained is higher when a patient knows he has cancer because of better coöperation. When a patient asks if he has cancer it is better to tell him the truth. A patient should be seen by the physician every 3 months for one and one-half years or longer.

In discussion Charles Long stated that coagulation was not mentioned at all in the treatment in epithelioma of the lip. In this locality very good results have been obtained by it. The word cure has been used much during the talk; is cure meant or restoration? H. B. Gibby said he was interested in the treatment of cancer of the antrum. About 5 years ago he had a similar case and the results would have been better if he had followed the open method as given by Dr. Dinsmore. The lesion had healed after the use of radium but later a lesion began in the nose involving the septum, necessitating a very radical operation. Radium was used after the operation and severe pain was experienced for one year. In the 5 years following there has been no recurrence. In cancer of the fundus of the uterus he uses radium first and then operates; especially must the former be used if a refusal of an operation is given. If patients are frightened they will coöperate better, and so if they ask the condition it is better to tell them.

Dr. Dinsmore, in closing, said that electrocoagulation does give good results but there is not as good a scar as with the use of radium. In general the terminology has been standardized to a 5-year cure. Restoration should be the word used.

MARJORIE E. REED, Reporter.

McKEAN

Sept. 18, 1934

The meeting was held at the Hotel Emery, Bradford. W. T. Getman, professor of obstetrics, Buffalo, read a paper on "Toxemias of Pregnancy." He divides these toxemias into 3 classes—nephritic, preëclampsia and eclampsia. Severe cases of nephritic toxemia which do not respond to treatment should be aborted to prevent acute yellow atrophy of the liver. In the treatment of eclampsia he advocates the conservative method as exemplified by Stroganoff, because of the lower mortality. Excess placental proteins, bacterial action on the amino acids of the placenta, water imbalance, and liver damage were considered as etiologic factors of eclampsia.

His talk was augmented by motion pictures depicting the technic of the low extraperitoneal method of cesarean section, which he prefers to the classical operation because of less danger of peritonitis.

Oct. 16, 1934

The meeting was devoted to a discussion of the "Wilkes-Barre Meeting," and the Emergency Medical Relief Program. The latter was subjected to considerable adverse criticism.

H. A. NELSON, *Reporter*.**MONTGOMERY**

Oct. 10, 1934

The meeting was held at the State Hospital, Norristown, with 53 members present. Reports from the State Meeting were presented. The scientific program consisted of a paper by Ralph M. Tyson, professor of pediatrics, Temple University Medical School, on "Pneumonias in Childhood."

He said in part: A definite classification of pneumonias in children may be given as: (1) Primary including both lobar, the localized form, and lobular, the disseminated form; (2) the interstitial type of bronchial pneumonia which in most instances is secondary to some other condition. Most of the primary pneumonias are due to the pneumococcus; while the secondary, interstitial bronchial pneumonia is nearly always a mixed infection. In the primary, the structure of the lung is not involved, while in the secondary it is. In the primary pneumonias the course is typical, with a sudden onset, high fever, and rapid respirations. There are few relapses and few complications. As a rule, the secondary form runs an atypical course with gradual onset, irregular temperature and respirations, with frequent relapses and complications.

The diagnostic points which are of value in the primary forms are as follows: Sudden onset, frequently accompanied by vomiting, diarrhea, or convulsions; the temperature is usually high—from 102° to 105° F. and in most of the cases is sustained but may remit somewhat. Respirations are nearly always increased out of proportion to the pulse rate. The normal ratio of 1 to 4, respiration and pulse is altered to a 1 to 3 or even a 1 to 2. There is usually a short inspiration with a pause, followed by a quick expiration accompanied by a grunt. This expiratory grunt is quite common in pneumonias. The pulse is usually full and strong, averaging 120 to 150, but its quality is more important than the rate.

There is leukocytosis with an increase in immature forms; the count may reach as high as 50,000. Positive blood cultures may be secured in about 10 per

cent of cases. This last group of cases is usually the more serious one.

Cerebral symptoms, such as convulsions, delirium, and coma are rather common in children. If the convulsion occurs at onset, it is not of particular significance, but if it occurs during the course of or at the end of the disease, it is usually of rather grave import.

The course of primary pneumonias varies from 2 to 12 days with most of them ending between 5 and 9 days.

The physical signs in the chest of pneumonia in the first few days of the disease are due to congestion and limitation of air in the lungs. As a result of this, there is diminished expansion, diminished resonance, the breath sounds are subdued and a few râles may be heard on deep inspiration. Typical bronchial breathing is usually late in appearing. This can be explained by serial roentgen-ray films which show as a rule that pneumonia begins in the periphery of the lungs and travels towards the hilus. When pneumonia reaches a bronchus of some size typical bronchial breathing may be heard.

Prevention of pneumonia seems to hinge on the proper care of the average acute cold. The active treatment of a case of pneumonia in a child should be considered carefully. The patient should be confined to bed, fed easily digestible food, an adequate supply of water should be given, the position of the child changed frequently, particularly in the young infant, and an abundance of fresh air should be secured. Control of excessive fever which causes irritability and restlessness is partly done by hydrotherapy, using an ice-cap to the head, and tepid sponge baths. This is preferred to antipyretic drugs. Counterirritation over the chest in the form of mustard plasters is of doubtful value. Inhalations in the average case of pneumonia are also of doubtful value, but when laryngeal complications exist, they seem to be of some help. Codein is believed to be the best sedative when given in appropriate doses. Stimulants are not administered routinely and only when symptoms demand their use. In signs of cardiac failure, digitalis in appropriate doses is the drug of choice; for more rapid action caffeine and adrenalin chloride 1 to 1000 are valuable. Blood transfusions are of questionable value. Immunotransfusions seem to offer some help. Oxygen inhalations, particularly if there is cyanosis, are of tremendous value; the child is more peaceful, usually falls asleep promptly when adjusted to the oxygen tent, and is more willing to take fluids.

The difficulty encountered in carrying out specific treatment of pneumonia by the use of serums is of such size that the value received is doubtful. The serum should be given in the first, second, or third days, otherwise it loses a great deal of its value. Serums are available only for type 1 and type 2, while half of the primary pneumonias in children belong to type 4.

It is difficult to type the pneumococcus in children because of the uncertainty of collecting sputum. The pneumococcus found in the pharynx is not always the same as that causing the pneumonia. Lung punctures do not seem wise. The Neufeld method for typing the pneumococcus has been of distinct advantage in arriving at a definite etiologic diagnosis in the early stages. The pneumococcus serum is best given intravenously which in a small child is very difficult and the struggle necessary for such administration often overbalances the good that is received by the serum.

WALLACE W. DILL, *Reporter*.

NORTHAMPTON

Oct. 24, 1934

The fifth annual postgraduate seminar under the auspices of the board of trustees and the staff of the Easton (Pa.) Hospital was held in the Wilbor Theatre, Easton. The meeting was well attended.

George W. McCoy, Washington, D. C., director of The National Institute of Health, U. S. Public Health Service, spoke on "Amœbic Dysentery," with especial reference to the Chicago outbreak. The disease is much more common in the temperate zone than had been formerly thought. The diagnosis should be made by careful correlation of clinical and laboratory data and not on the latter alone. This is necessary because some cases go on to a carrier stage in which amœbæ are still present in the stools in the absence of any signs of clinical dysentery. Many of the cases in the recent outbreak were misdiagnosed appendicitis. Operation in these cases had a high mortality rate.

Charles F. Geschickter, Baltimore, surgical pathologist, Johns Hopkins Hospital, spoke on "Recent Studies on the Etiology of Carcinoma." He emphasized the value of the study of tumors from the standpoint of their hormone content.

After luncheon, which was held at the Easton Hospital, Frank E. Adair of New York City, surgeon, Memorial Hospital, spoke on "Malignancies of the Breast." This lecture was illustrated by lantern slides as was that of Dr. Geschickter. Charles W. Mayo of Rochester, Minn., read a paper entitled "The Management of Carcinoma of the Colon."

Maurice Pincoffs, Baltimore, professor of medicine, University of Maryland, read a paper on "The Prevention of Paraplegia." This, he said, was possible to a considerable degree with care in the management of pernicious anemia, syphilis, spinal cord tumors, and extradural abscesses.

There was an exhibit of pathologic and bacteriologic specimens in the Easton Hospital laboratory which was visited by many of the guests.

Oct. 29, 1934

The meeting was held at the Bethlehem Club at 9 p. m., President Richards presiding.

A communication was read which led to the adoption of a resolution to the effect that all physicians' bills for services rendered to persons on relief, either county or State, be placed in the hands of the county commissioners or the local committee, within 30 days of the completion of the contract or of the illness for which the bill is rendered.

The meeting was then turned over to the Economics Committee, and Dr. Zack took the chair.

In explaining the situation that necessitates the payment of only a fraction of each bill rendered for services to relief-supported patients, Dr. Zack said that out of the \$10,000,000 appropriated for relief only \$300,000 was allotted for medical services. When the actual payments began to be made, however, only \$125,000 was available for this purpose. All expenditures had, therefore, to be pared to some two-fifths of the original estimate.

The speaker of the evening was F. F. Borzell, of Philadelphia. His remarks, he said, were essentially those he intended to use in a debate to be held the following evening in which he was to have the negative

side of the proposition "*Resolved, That the State should provide adequate medical care and hospitalization to all of its citizens.*" If medical care has to be subject to regimentation because of peoples' need of it, food and shelter by the same reasoning should become subject to control also.

Socialized medicine is a blow at democratic ideals. Sickness insurance, originated by Bismark for purely political reasons, eventually becomes state medicine. The protagonists of socialized medicine have a utopian concept and do not realize that their plans cannot be made to work because of the unsocial elements in society. The unvarnished facts show that what is needed is adequate medical service for all, and adequate pay for the doctor. None of the schemes for medical service now working provide this. One of the methods that has never been tried is that of raising the general income level of the groups that now require relief. The public is not interested in our income but it is interested in the quality of medical care that is provided under any system. The experience of Europe shows that socialized medical schemes are eventually politically controlled. The socialization of medicine is not a step forward in social improvement. It will not guarantee adequate medical care. It will bring about the enslavement of the medical profession.

In discussion Arno H. Zack said that it is necessary to clean house within the profession before we try to do it outside. He then brought up the question of contract practice. The Economics Committee has defined a permissible contract as one in which a physician is employed to perform specific duties at a fixed rate. After some discussion it was decided that the subject of contract practice had been well canvassed at previous meetings but that no definite results had come of the proceedings. Dr. Phillips said that he and the other men who held contracts to do the county poor work had all given up their contracts, but no other contracts had been terminated. It was recalled by Dr. Richards that some 20 nonpermissible contracts had been brought to light by the questionnaire sent out to all members last year, which were turned over to the censors for investigation and had not been heard from since. Dr. Santee speaking for the censors said that they could do nothing in the matter because the society had no minimum fee schedule. Those having nonpermissible contracts stated that they were within the permissible group because all the patients were being treated at a definite fee for each case. A resolution was then passed empowering the Public Relations Committee to draw up a minimum fee bill and to present it at the next regular meeting of the society.

The following recommendations, introduced by the Economics Committee, were approved, and are to be presented to the society at its regular meeting.

1. That there be no restrictions on the rendering of physicians' bills to any hospital patients, and that such bills be paid at the same time in the same proportion as the hospital bills are paid.

2. That adequate medical representation be included on all boards of trustees of all general hospitals.

3. That no organization having to do with public health be recognized by the profession, unless it has been approved by the Public Relations Committee.

4. That a sufficient number of physicians be employed by local communities to examine adequately all school children.

F. J. PEARSON, Reporter.

PHILADELPHIA

Oct. 24, 1934

The meeting consisted of a symposium on "Ophthalmia Neonatorum."

Louis Lehrfeld read a paper covering the results of a survey of 27,000 hospital birth records and 2,000 cases of ophthalmia neonatorum in the Philadelphia district. In the review the essayist brought out several important facts.

One pertained to the prophylactic, silver nitrate, as being the cause of a definite number of cases of ophthalmia of the newborn now recorded as gonorrheal ophthalmia neonatorum. Another observation was that ophthalmia neonatorum may occur from 1 to 2 weeks after birth. Those hospitals in which prenatal care of the mother is observed, especially as regards gonorrhea, had little or no ophthalmia neonatorum.

Dr. Lehrfeld showed by his survey a high incidence of the disease in the wards of this city, where negroes live in large numbers. In these same wards, the influx of the negroes has been comparatively recent and provisions have not been made for their care. In the opinion of the essayist too much reliance has been placed upon the instillation of one drop of the strong silver nitrate solution and too little attention to the details of the technic. Wherever possible the pregnant woman should be hospitalized and if proved to have gonorrhea should be treated intensively. The newborn baby should have the eyes well flushed before the instillation of the appropriate prophylactic medicament; use the minimum effective strength of silver nitrate solution but continue it over at least a 3-day period. Obviously, if this strength is found to be unirritating it could be continued over the maximum period of liability to infection. This paper will appear in full as an activity of the Department of Health of Philadelphia.

In the discussion J. Norman Henry, director of Public Health of Philadelphia, referred to the indifference of hospitals and of physicians in reporting cases of ophthalmia neonatorum as well as to the lack of reference to prenatal care in these cases. He subscribes to the great need, enunciated by Dr. Lehrfeld, of intensive treatment of gonorrhea in pregnant women for the prevention of ophthalmia neonatorum.

George E. deSchweinitz gave an historical review of the subject, quoting in large part from Hirschberg. That Palestine should be practically devoid of ophthalmia neonatorum was an agreeable surprise to many. He stressed the necessity of strict observance in detail of the technic of Cr  d  , but questioned the advisability of offering any suggestions that might weaken the confidence in this prophylaxis.

P. Brooke Bland, in considering the subject from the standpoint of the obstetrician, expressed views in accord with those of the essayist. Early recognition of gonorrhea in the expectant mother is essential and such patients should be placed immediately in a special venereal clinic. Treatment is continued as long as practicable. His experience in the prevention of ophthalmia neonatorum is especially gratifying; of 84 pregnant women with gonorrhea only one case of ophthalmia neonatorum developed. No one can predict when infection may occur or when a latent case of gonorrhea may become active. To safeguard the baby he employs the following ophthalmic technic with special armamentarium which insures observance of every detail of this necessary prophylaxis. The eyelids are held open by a speculum; the eye thoroughly flushed with boric acid solution; one per cent silver nitrate solution is instilled. In babies born of infected mothers, the treatment is

repeated every 24 hours for several days. In the event that the disease actually develops, the baby is placed in the care of a competent ophthalmologist.

William R. Nicholson, speaking from a large experience with the midwife situation in Philadelphia, added considerable valuable material to the symposium. He prefaced his remarks by the statement that women having recourse to midwives have had no prenatal prophylaxis at all. They are emergency cases as a rule. In 20 years, the records show 95,640 babies were born under such auspices. From 1914 to 1916, 23,105 babies were born, of which 618 had sore eyes and 63 of these were diagnosed as ophthalmia neonatorum. Since 1917 when compulsory prophylaxis with silver nitrate was introduced, 72,535 births were recorded by midwives; of these there were 316 cases of sore eyes of which 270 were diagnosed as ophthalmia neonatorum. Dr. Nicholson questions the miraculous preventive quality of a single drop of any medicament and believes a closer attention to the technic of the prophylaxis is highly important in the control of this condition. He showed little enthusiasm for the recommendation of prenatal care in the prevention of ophthalmia neonatorum in view of the fact that 40 per cent of pregnant women do not go to the hospitals. In well organized hospitals such treatment is wholly practicable, but for those not utilizing such services the liability of maternal infection must be taken into consideration.

Mr. Lewis H. Carris, executive director of the National Society for the Prevention of Blindness, reviewed briefly the scope of the activities of his society in this field and the society stresses these points: Routine use of prophylactic in the eyes of all newborn babies; use of a prophylactic that is readily available, preferably one supplied by a local or State Board of Health; reporting of all suspicious cases to the health officer and prompt investigation by the health department or other agency; legislative provisions for adequate care of all cases; and, routine laboratory examinations for all suspected cases.

Mr. Carris presented statistics from many sources showing a progressive decline in the incidence of ophthalmia neonatorum with the use of silver nitrate prophylaxis. He interpreted the figures presented by Dr. Lehrfeld in a manner somewhat opposing the essayist. While conceding the advocacy of prenatal care where practicable, he leans toward the conviction that his society, in the discharge of its purpose, can sponsor only such prophylactic technic as is proposed by the ophthalmologists and obstetricians in agreement.

SAMUEL HORTON BROWN, *Reporter*.

WARREN

Oct. 15, 1934

The meeting was held at the Conewango Club with 25 in attendance and was devoted to business.

District Councilor George A. Reed, Erie, made a visitation and discussed several of the problems of the State Society.

Delegates to the State Society, Hamblen C. Eaton and William M. Cashman, reported in full concerning the Wilkes-Barre convention.

There was much discussion concerning the Child Emergency Health Work. The majority of the physicians in the county who have had experience in this field are of the opinion that it is not appreciated by the recipients. The Society agreed to foster it for another 3 months in order to co  perate with the State Society officers.

Dr. Brody of the State Hospital, Dr. Crane, a former member who has recently returned and is in charge of the Transient Camp, and Dr. Anderson were elected to membership. Dr. Thompson who has started practice in Youngsville was admitted by transfer.

Dinner was provided by the staff of the State Hospital.

M. V. BALL, *Reporter*.

WYOMING

Oct. 17, 1934

The quarterly meeting was held at Noxen with the society and the auxiliary the guests of Dr. and Mrs. Rauch at dinner.

The business meeting was opened by President Beaumont. A discussion of the prospects of "state medicine" was followed by a resolution, passed unanimously, that the society go on record as being opposed to any form of "state medicine." There was also discussion on compulsory health insurance.

W. M. Alexander, recently located in Nicholson, was a guest; Dr. Alexander, a native of Scranton, has asked permission of the society to affiliate with the Lackawanna County Society.

The meeting adjourned to the home of C. L. Boston, of Noxen, who is in his fiftieth year of practice.

ARTHUR B. DAVENPORT, *Secretary*.

YORK

Oct. 20, 1934

President James F. Wood, in the Chair.

Edward Looper, professor of laryngology, University of Maryland, Baltimore, spoke on "The Diagnosis and Treatment of Diseases of the Larynx and Bronchi." He said in part: The laryngeal complication occurs in 20 to 33 per cent of all pulmonary cases; it has long been considered an incurable condition. If diagnosis is made early, it is amenable to treatment; in the last stages of pulmonary disease we can only relieve pain. In 50 per cent of all dying patients the laryngeal complication is found. As soon as a diagnosis of pulmonary lesion is made, a diagnosis must be made of the laryngeal lesion, if present. The earliest and most frequent location of the lesion is in the interarytenoid space. Now it is seen in 65 per cent of the moderately advanced cases. Occupation has nothing to do with the cause; it is always a secondary lesion. Cauterizing these lesions is easily done, and must be combined with rest, hygiene, food, and vocal rest.

Differential diagnosis: Cancer of the larynx. It is generally seen in the anterior two-thirds of the cord, mostly in the male, after age 40. The symptoms are those of a cold—huskiness, cough, aphonia, but no pulmonary lesion of tuberculosis. If infiltration is in deep tissues, then it is associated with hoarseness and dyspnea. Treatment depends on the stage of growth and type of tumor.

The differential diagnosis is between syphilis, benign and malignant tumors, and chronic laryngitis.

In a review of 8000 patients, only once did cancer develop in a tuberculosis patient. Chronic laryngitis was generally due to infection above, as from the paranasal sinuses; anterior cords are rough.

Polyps and papillomata can be clipped off, but they must be carefully examined since some develop into cancer. Multiple papillomata in a child are generally benign, but may become malignant.

Treatment: Radium, roentgen-ray therapy, laryngofissure, laryngectomy. In laryngectomy avertin anesthesia

is preferred; the patient remains asleep, there is no shock and the operation of laryngectomy may be done in 1 or 2 stages. The speaker preferred the one-stage operation. Careful dissection is done posteriorly, then control hemorrhage, loosely draw the skin together, aspirate during operation, with free drainage afterwards.

A motion picture of laryngectomy was shown, laying stress upon the importance of suction through a nasal tube and feeding through the nasal tube with the use of the artificial larynx as supplied by the Westinghouse Company. Operative mortality is low, there is less shock, the patient is comfortable, and leads a happy and longer life.

Bronchoscopy: Foreign bodies constitute only 2 per cent of its use, the remainder for other conditions. Inspect both ramifications of the bronchi.

Graphic moving pictures were shown of peroral endoscopy for removal of foreign bodies of various kinds and for the diagnosis and treatment of suppurative and neoplastic diseases of the bronchi, including delineation of the bronchi with an opaque medium (pneumomography).

In discussion W. F. Gemmill, York, stated that the medical man is negligent in not examining the larynx in patients with pulmonary tuberculosis. The nerve supply of the larynx was reviewed. H. W. Uffelman, York, asked how cases of bronchiectasis should be treated.

G. E. Holtzapfel, York, asked how to prevent bronchiectasis. E. Looper in closing stated that if bronchiectasis is diagnosed early, before too much change has occurred, it can be cured; hope for improvement is by means of aspiration through the bronchoscope with irrigation of a mild alkaline solution and the installation of a mild antiseptic solution. Lobectomy and the total removal of lung as practiced by Rienoff and Broyles can greatly help some bronchiectases and some abscesses. Lipiodol may help as an antiseptic. The greatest cause of bronchiectasis is associated paranasal sinus disease. H. MALCOLM READ, *Reporter*.

THE USE OF STANDARD PHARMACEUTICAL PREPARATIONS

The Massachusetts State Association of Pharmacists together with the Boston Association has started a movement to induce physicians to prescribe remedies which are described in the pharmacopeia. There is a very general impression that standardized drugs cover practically all the needs of the doctor and are less expensive than proprietary products.

It would be to the advantage of both druggists and doctors if the public could be induced to use only those drugs prescribed by the attending physician and it is very probable that the laity would be better served if there were less personal selection of remedies.

This movement should include the elimination of the prescribing druggist and if the medical and pharmaceutical professions unite in an educational campaign some present-day dangers will be avoided.—N. E. J. M., June 1, 1933.

COLOR BLINDNESS

Approximately 1 out of every 25 males and 1 out of every 200 females are color blind. Essentially, color blindness is the inability of an individual to distinguish between red and green. From a practical standpoint, therefore, there are thousands of persons driving automobiles today who have more or less difficulty in distinguishing the red and green traffic lights upon the public highways.

The Woman's Auxiliary to The Medical Society of the State of Pennsylvania

MRS. GEORGE C. YEAGER, *Editor*, 1419 E. Susquehanna Ave., Philadelphia, Pa.

CHRISTMAS GREETINGS

The Executive Board of the Woman's Auxiliary to The Medical Society of the State of Pennsylvania extends most cordial Christmas greetings to you.

Let us meet 1935 with strength and courage; let us through work, love, and service help where help is most needed and in this way receive contentment and happiness.

NAOMI L. (MRS. LAURRIE D.) SARGENT,
President.

MESSAGE FROM THE EDITOR

DEAR FRIENDS:

I am relying on each and every one of you to help me make our space in the State JOURNAL worth while. Kindly mail your reports before the tenth of the month. We should like to hear from each county some time during the year. I am sure that each auxiliary will have something of interest to the other auxiliaries, so please pass it along. Your coöperation and support are requested.

Cordially yours,

JESSIE W. (MRS. GEORGE C.) YEAGER,
Editor.

COUNTY AUXILIARY REPORTS

Allegheny.—Last May, the auxiliary held its first Reciprocity Health Day Meeting at the College Club. Representatives from women's clubs, parent-teacher units, and civic organizations in Allegheny County were invited to this meeting and urged to have at least one program on health during the year in their own organizations. As a result, many requests have been received by the auxiliary for suggestions and help in planning these health programs.

On Oct. 25, in the Jenkins Arcade, the Public Relations Committee of the auxiliary called a conference of program chairmen of groups planning health work during the year. The purpose of this meeting was to coördinate and to concentrate these programs on the subjects being emphasized at the present time by the Allegheny County Medical Society; 35 organizations were represented at this conference.

Dr. H. J. Benz, of the Pittsburgh Department of Health, discussed the importance of immunization of the preschool child against diphtheria, and presented the plan for conducting the work. Dr. R. R. Jones, president of the General Health Council of Pittsburgh and Allegheny County, discussed the organization and work of that group and gave an outline of the campaign against venereal diseases. Mr. George A. Taylor, of

the Pittsburgh District Dairy Council, explained literature on diet. At the close of the meeting literature either published by or approved by The Medical Society of the State of Pennsylvania was distributed to the various groups represented, for program use. Announcement was made of the radio talks being sponsored by the Allegheny County Medical Society on Wednesdays at 4 p. m., over Station WCAE.

The Public Relations Committee of the Woman's Auxiliary is as follows: Mrs. D. N. Bulford, *chairman*, Mrs. George Leibold, Mrs. Stanley Wallace, Mrs. Theodore Baker, Mrs. Frank Gray, Mrs. Clarence Ketterer, Mrs. Vernon D. Thomas, Mrs. George C. Seitz.

A dinner for physicians and their wives was held at the Hotel Schenley, Nov. 8, Pennsylvania Health Day, preceding the public meeting.

Bucks.—The auxiliary had dinner with the doctors at Washington's Crossing Inn, Oct. 10, after which the auxiliary conducted their meeting with Mrs. Herbert T. Crough, president, presiding. Mrs. J. Fred Wagner, delegate to the State convention at Wilkes-Barre, gave a complete report. Mrs. Frank Lehman reported on the second Councilor District meeting held at the Plymouth Country Club in September.

Reports were received from the various committees. The *Hygeia* Committee is active. Working for the Benevolence Fund was particularly stressed by our president.

Two of our members attended the meeting of the Public Health Association of Bucks County, Oct. 25, at Doylestown.

Delaware.—The annual meeting was held at the Chester Club, Chester, Oct. 22. After luncheon the meeting was called to order by Mrs. Adrian V. B. Orr, president. Twenty members and 2 guests were present. The treasurer reported a balance of \$71.56, and that 53 members had paid dues for the past year. Two new names were proposed for membership and accepted.

The following officers were elected to serve during the coming year: President, Mrs. E. Arthur Whitney; vice-president, Mrs. Walter E. Egbert; treasurer, Mrs. Francis G. Miller; secretary, Mrs. Walter A. Landry.

The new president, Mrs. Whitney, was inducted into office.

The balance of the afternoon was spent at cards.

Erie.—The meeting was held at the Women's Club, Oct. 8. The official report of the convention activities was given by Mrs. Clayton Fortune. The meeting was in the form of a bridge luncheon. On Oct. 24, the auxiliary sponsored a dinner dance to which the Erie County Medical Society was invited. It was held at Hunters Lodge and was attended by 84 guests. The meeting of Nov. 5 was held at the home of Mrs. C. G. Strickland. The members joined in sewing garments for St. Joseph's orphanage, after which tea was served. About 60 members attended. Plans were also made to

help with the American Red Cross campaign. Eleven new members were admitted to the auxiliary.

Montgomery.—The auxiliary held its meeting at the Nurses' Home, Nov. 7, Mrs. Herbert B. Shearer presiding. Mrs. Camille J. Flotte gave a report of the convention held in Wilkes-Barre, Oct. 1 to 4. Mrs. J. Newton Hunsberger, past National and State president, gave her impressions of the meetings. One new member was greeted and a new one proposed.

Miss Frances Livingston Hoog, of the Interstate Dairy Council, spoke upon "Science Is More Wonderful Than Magic."

Northampton.—The meeting was held Oct. 10, at the Old Sun Inn, Bethlehem. Mrs. Michael Stolfo, Mrs. Arno R. Zack, and Mrs. James E. James, were hostesses. There were 26 members present; Mrs. Arthur S. Fox, president, presided. It was voted to donate \$10 to the Crippled Children's Clinic, Easton, which takes care of all crippled children in Northampton County.

A detailed report of the State convention was given by Mrs. Francis J. Conahan, delegate.

Philadelphia.—The International Assembly of the Inter-State Postgraduate Medical Association of North America met in Philadelphia this year and Mrs. Edward J. Klopp, president of the Philadelphia Auxiliary, was asked to serve as active chairman of a committee to provide for the entertainment of the women guests of the doctors attending the Assembly. Mrs. John B. Deaver was honorary chairman and the committee was selected from the Philadelphia Auxiliary.

On Tuesday, November 6, the Philadelphia Auxiliary gave a tea to the visiting women at the County Medical Building. Music was provided by an orchestra.

On Wednesday evening a dinner party was arranged at the newly opened International Restaurant with a floor show which lasted until 10 o'clock. There were 113 women at the dinner.

On Thursday afternoon Mrs. Klopp entertained at a tea at her home for the visiting group assisted by members of our own auxiliary.

During registration days the Woman's Committee kept information booths at Convention Hall and hotel headquarters.

On Nov. 13, the program was provided by Mrs. R. Tait McKenzie, musician and poetess and wife of Dr. R. Tait McKenzie, famous sculptor and physician, who exhibited her pictures on "Angel Musicians in Art." A tea followed.

On Nov. 26, there was held a card party and cake sale for the benefit of the Medical Welfare Fund at the County Society Building.

Schuylkill.—The October meeting was held at the Schuylkill County Home. We received 11 new members, the total now numbering 70. The new hospital was inspected and the first meal served in the building was served to the auxiliary. Dr. L. D. Heim, the resident physician, was the host.

The officers are as follows: President, Rosa L. Santee, Cressona; vice-president, Mrs. Ivor Fenton, Mahanoy City; secretary, Mrs. Guy Robinhold, Ashland; treasurer, Mrs. Bessie Moore, Pottsville.

Warren.—The auxiliary opened the fall season with a birthday party celebrating its first anniversary. The meeting was held at the home of Mrs. Michael V. Ball, the president. Election of officers was held and a program planned for the coming year.

Medical News

Births

TO DR. AND MRS. RAYFORD E. WRIGHT, Conemaugh, a son, Oct. 25.

TO DR. AND MRS. R. M. GRIECO, Williamsport, a son, Reynolds Michael, Oct. 9.

TO DR. AND MRS. HAROLD L. TONKIN, Williamsport, a daughter, Mary Caroline, Oct. 5.

TO DR. AND MRS. ISIDORE DI SALVO, Williamsport, a daughter, Maryann Carmela, Oct. 6.

Engagements

MISS PHOEBE GILL LUCAS, daughter of Dr. and Mrs. Walter S. Lucas, Wynnewood, and Mr. Asa B. Carmichael, Jr., Germantown.

MISS DELPHINE LOUISE R. HOLLINGSWORTH, daughter of Dr. and Mrs. I. Pemberton P. Hollingsworth, West Chester, to Dr. Louis B. Laplace, Philadelphia.

Marriages

MISS MILDRED WOLFE to Dr. Jefferson Albright Jones, Philadelphia, at Valley Forge, Sept. 29.

MISS ANTOINETTE LALCONE, Bangor, to Dr. Caesar S. Sarni, Norristown, Oct. 27.

MISS MATHILDE VAN LENNEP, daughter of Dr. and Mrs. Gustave A. Van Lennep, Malvern, to Mr. Robert Richards McKaig, Oct. 6.

MISS MARY E. MARTIN to Mr. Clement Craft Parker, son of Dr. and Mrs. Frank C. Parker, all of Norristown, Oct. 20.

MISS BARBARA HEYWOOD, Boston and Centreville, Cape Cod, Mass., to Mr. Benjamin Rush Field, Jr., New York, son of Dr. and Mrs. B. Rush Field, Easton, Sept. 1.

Deaths

ALEX WILSON ACHESON, Denison, Texas; University of Pennsylvania Medical School, 1867; aged 92; at his home Sept. 7. According to the *Texas State Journal of Medicine*, October, 1934, Dr. Acheson was born Oct. 12, 1842, in Washington, Pa., the son of Judge Alexander W. and Jane A. Acheson. His academic education was received in the Washington and Jefferson College, from which he was graduated with a B.A. degree. His university education was interrupted by the Civil War, in which Dr. Acheson first served with the Federal forces as a private with the 140th Pennsylvania Regiment in 1861, advancing during the conflict to a captaincy in 1863. He subsequently became aide-de-camp on General Miles' staff. After the Civil War, Dr. Acheson entered the University of Pennsylvania Medical School, graduating in 1867. After graduation he practiced for a short period of time in Beaver, Pa., New York City, Brooklyn, and Kansas City. In 1872, he removed to Denison, Tex., where he spent the remainder of his professional life. Dr. Acheson was a member of the State Medical Association of Texas from 1873 until his death. He was keenly interested in medicine, and played an active part in its development during his lifetime. As late as Feb. 25, 1927, he presented an original contribution on the subject, "Filtered Air in the Treatment of Pneumonia," which was published in the March, 1927, number of the *Dallas Medical Journal*. He was a regular contributor to the scientific programs of his society, and until the last few years of his life, was a regular attendant at State Association meetings. He was city physician for Denison from 1923 to 1929 inclusive.

Apart from his professional life, Dr. Acheson was a leader in the political, social, and economic development of his community, with which, it may be truly said, he grew up. He served the city of Denison 4 terms as mayor, being the first elected under the present

commission form of government. During his administration, the major improvements of his home city stand today as monuments of his farsightedness. A few of these are the present adequate city water supply, the Denison City Hospital, and the Denison High School building. He is personally responsible for securing the extension of the Texas & Pacific Railroad to Denison. He had served the Missouri Pacific, now the Missouri, Kansas & Texas Railway, as local surgeon since it entered Denison, one month after Dr. Acheson's arrival there.

Dr. Acheson gained national fame in his persistent advocacy of river development for the Southwest. His primary efforts to secure navigation of Red River laid the foundation for the Red River Flood Control movement. He was an honorary vice-president of the Red River Valley Flood Control and Navigation Association. At one time he delivered before Congress an appeal for Red River recognition. He had appeared on the programs of the National Rivers and Harbors Congress, Mississippi Valley Association, and other water development organizations.

In his political life, Dr. Acheson was Republican candidate for Governor in 1906, for United States Senator in 1916, and for Congress in 1920. Dr. Acheson was an honorary member of the Veterans of Foreign Wars, and a member of the Gate City Post in Denison.

He is survived by one daughter.

LEWIS SUTTON ASPEY, Scottdale; Western Pennsylvania Medical College, Pittsburgh, 1899; member of his county and State medical societies and a Fellow of the A. M. A.; aged 64; Sept. 14.

GEORGE RUFUS DRAKE, Plymouth; University of Pennsylvania School of Medicine, 1906; Oct. 15, following an operation for appendicitis; aged 55. Dr. Drake was a native of Bristol, Vt., and was graduated from Middlebury College. Upon graduating in medicine he started practice in Plymouth where he was a director of the Plymouth National Bank and the Clark Lumber and Supply Company. In 1904 he was All-American end for the University of Pennsylvania football team. Dr. Drake was a member of his county and State medical societies, and a Fellow of the A. M. A. He is survived by his widow and a son.

JAMES WELKER GEIST, Wilkes-Barre; University of Pennsylvania School of Medicine, 1890; member of his county and State medical societies and a Fellow of the A. M. A.; aged 70; Sept. 18, nephritis.

WILLIAM H. HAMERSLY, Wilkes-Barre; University of Pennsylvania School of Medicine, 1883; aged 72; Sept. 22, appendicitis.

RALPH L. HOYT, Christiana; Baltimore Medical College, 1898; member of the Medical and Chirurgical Faculty of Maryland; aged 58; Oct. 2, heart disease.

WILLIAM PAUL McCULLOCH, Cheswick; Kentucky School of Medicine, Louisville, 1891; member of his county and State medical societies and a Fellow of the A. M. A.; aged 71; Sept. 17.

HOMER CLARK MILLER, Altoona; Starling Medical College, Columbus, Ohio, 1898; aged 60; Sept. 2, cerebral hemorrhage.

JAMES O. MOHN, Shamokin; Jefferson Medical College, 1894; member of his county and State medical societies and the A. M. A.; aged 66; Oct. 2.

HENRY LOUIS STICK, Canandaigua, N. Y.; College of Physicians and Surgeons, Baltimore, 1900; member of the Philadelphia County Medical Society; aged 62; in October.

ALFRED OVERTON TARRANT, Philadelphia; Medico-Chirurgical College of Philadelphia, 1915; recently; aged 60. Dr. Tarrant was a native of Ontario, Canada, and a graduate of Wycliffe College, Toronto, and the University of Toronto. He was also a graduate of Windsor College, Md. He was a minister as well as a

physician, being ordained in 1896, and served in New Orleans, Detroit, St. Paul, Sandusky, and Philadelphia. At one time he was an instructor in the Medico-Chirurgical College. For 3 years, beginning in 1916, he was rector of Old Zion P. E. Church, Philadelphia, after which he started St. Giles Mission in Stonehurst, Delaware County. He made a specialty of diseases of children. He is survived by his widow and 2 sons, Dr. John R. and Dr. Harold A. Tarrant.

HARRY PARKER THOMPSON, Brookville; Western Pennsylvania Medical College, Pittsburgh, 1890; on the staff of the Brookville Hospital; member of his county and State medical societies and the A. M. A.; aged 72; Sept. 23, in the Cleveland (Ohio) Clinic Hospital, hepatitis.

JESSE B. THOMPSON, Atlantic City, N. J.; University of Pennsylvania Medical School, 1888; aged 77; at his home Nov. 18, heart disease. Dr. Thompson was a pioneer shore hotelman, banker, and City Commissioner. Following graduation he began practice in Atlantic City, gradually turning to real estate as an ardent developer of the Chelsea section. He also helped to organize the Cheslea National Bank in 1901, and was its only president, and continued as head of the merged Chelsea-Second National Bank. He also was president of the Seaboard Fire Insurance Company and the Mono Service Company of Newark. When commission government was adopted he was a member of the first governing body of 5 in 1912, and was reelected throughout 12 years; during this service he directed construction of the Inlet harbor. Dr. Thompson was well known in Pennsylvania and was a frequent host at the Chelsea Hotel at reunions of his class. He is survived by his widow.

THEODORE HAMILTON WEAGLEY, Marion; College of Physicians and Surgeons, Baltimore, 1882; member of his county and State medical societies and a Fellow of the A. M. A.; past president of the Franklin County Medical Society; on the staff of the Chambersburg Hospital; aged 72; Sept. 24, angina pectoris.

MILTON EDWARD WEAVER, Perkaspie; College of Physicians and Surgeons of Baltimore, 1904; at the Easton (Pa.) Sanatorium Nov. 14; aged 53. Dr. Weaver was born in Applebachsville, Pa., and was a graduate of the State Normal School, Kutztown, Pa. From 1904 until 1908 he practiced at Limeport, Pa., moving at the end of that period to Perkaspie; a few years later he moved to South Perkaspie, and in 1918 to Wind Gap, in the Poconos, and in June, 1925, returned to Perkaspie. He is survived by his widow and 3 children.

Miscellaneous

DR. AND MRS. HENRY D. REED, Pottstown, recently celebrated their twenty-fifth wedding anniversary.

DR. ENOCH H. ADAMS, Berwick, has been appointed surgeon-in-chief to the Center County Hospital, Bellefonte.

DR. WILLIAM F. HERBST has been chosen chief of the medical department of the Allentown Hospital to succeed the late Dr. Joseph M. Weaver.

DR. GEORGE W. GRIER, Pittsburgh, was inducted into the office of president of the American Roentgen Ray Society at their annual meeting in Pittsburgh.

DR. PAUL D. WHITE, of Boston, was the speaker at the meeting of the Lancaster County Medical Society on the evening of Dec. 5.

THE PHILADELPHIA ALUMNI SOCIETY, Medical Department of the University of Pennsylvania, held its Fall Smoker at the Penn Athletic Club, the evening of Nov. 17.

DR. DAVID RIESMAN was elected president-elect of the International Medical Assembly at its annual meeting held in Philadelphia, Nov. 5-9, 1934.

RIVERVIEW HOSPITAL, Norristown, and Grandview Hospital, Sellersville, were both recently placed upon the approved list of hospitals by the College of Surgeons.

A DEPARTMENT FOR THE PREPARATION of bacteriophage has been established at the Temple University Hospital under the direction of Dr. John A. Kolmer of the hospital staff.

DR. WALTER BRADFORD CANNON, Boston, delivered the thirty-third annual Mary Scott Newbold Lecture of the College of Physicians of Philadelphia, Nov. 7, on "Stresses and Strains of Homeostasis."

THE ALLEGHENY COUNTY MEDICAL SOCIETY is conducting a series of short instructive articles in the *Pittsburgh Sun-Telegraph* on diet. The information will be of particular interest to women.

MRS. MAE L. YEATON, who for several years has been associated with the Harrisburg office, has tendered her resignation, and the vacancy has been filled by Mrs. Hyacinth Willners (*nee* Beard), who was formerly associated with the office.

DR. FRANK L. GREENWALT has resigned as college physician at Girard College, Philadelphia, after 30 years' service. The vacancy has been filled by the appointment of Dr. Edward L. Bauer, professor of pediatrics, Jefferson Medical College.

DR. BASIL L. BELTRAN, Philadelphia, has been awarded the Palme-Academic decoration of the Ministry of National Education, of France, for services rendered to the French during the World War and to the French in Philadelphia.

AT THE MEETING of the American College of Surgeons recently held at Boston, Dr. Donald C. Balfour of the Mayo Clinic, Rochester, Minn., was elected president-elect. Dr. Robert B. Greenough of Boston was installed as president.

DR. J. F. CONNOR, Meadville, who was recently appointed chief surgeon of the Erie Railroad, was further honored with the appointment of chief surgeon of the Spencer Hospital at Meadville. He had been on the hospital staff for some time past.

DR. F. S. MAINZER, Clearfield, was recently registered at the Harvard Medical School in Boston where he took a postgraduate course in neurosurgery. During the month of November he took further postgraduate work at the New York Post-Graduate Medical School.

DR. WILLIAM J. TAYLOR, chief of staff of the Orthopedic Hospital, Philadelphia, was the guest of honor at a reception given by the staff executives and the board of managers, Oct. 16, in appreciation of his 50 years of service to the hospital.

BECAUSE OF A NEW STATE LAW requiring physicians to report all cancer cases, and a \$300,000 fund willed to the University of Wisconsin for research and a cancer clinic, the Wisconsin State Board of Health feels that conditions are encouraging for an advance against the disease.

THE PENNSYLVANIA BOARD OF MEDICAL EDUCATION AND LICENSURE will hold its midwinter examinations in Philadelphia, January 8 to 12, inclusive. The first 3 days will be devoted to the written examination, and the bedside examination will be held during the last 2 days.

DR. MAXWELL SCARF, Philadelphia, spoke at the third of a series of 9 health talks being given at Mount Sinai Hospital. The lecture, given on Nov. 28, was on "Arthritis and Rheumatism." Dr. Eugene Rush will present the next lecture, Dec. 26, on "How to Keep Your Children Healthy." These lectures are free to the public.

THE 1934 MEETING of the Association of Military Surgeons was held Oct. 8 to 10 at Carlisle Barracks,

Carlisle, Pa. The Army Medical Field Service School, under the command of Brig. Gen. M. A. DeLaney, provided facilities for demonstrations of interesting problems in the tactical employment of medical troops, and in field hygiene.

A MEMORIAL SERVICE was held Oct. 15, at Bryn Mawr College, Bryn Mawr, Pa., in honor of the late Dr. Marjorie Jefferies Wagoner, who died last June after 10 years' service as physician at the college. Addresses were delivered by President Marion E. Park and Dean Helen Taft Manning of the college, and Doctors David Riesman and Earl D. Bond, both of Philadelphia.

THE FORTY-EIGHTH ANNUAL DINNER of the Association of Ex-Resident and Resident Physicians of the Philadelphia General Hospital was held, Dec. 4, at the Philadelphia Country Club. The guest of honor was Dr. William A. N. Dorland, Chicago. Ex-interns are urged to send their correct address to Dr. George Wilson, secretary, 133 S. 36th St., Philadelphia.

A GROUP OF ADMIRING FRIENDS of Dr. Lawrence F. Flick, Philadelphia, recently presented to the Jefferson Medical College an excellent portrait of this distinguished alumnus. The genius and brush of the well-known Philadelphia artist, Will Thomson, has caught and admirably perpetuated for this and for future generations the kindly features and noble characteristics of Doctor Flick.

THE DEPARTMENT OF HEALTH of PENNSYLVANIA has recently announced a furlough plan for the 3 state tuberculosis sanatoriums, with a view to decreasing the waiting list, which now numbers more than 1000. Patients who are successfully receiving artificial pneumothorax treatment are to be returned to their homes and will receive treatment at special clinics. Field nurses and clinicians will watch these patients carefully and return to the sanatorium any who do not show sufficient improvement.

FOR THE FIRST TIME it is now possible for tuberculosis sanatoria to keep uniform and complete records of all material facts about their patients, available at all times for instant consultation. This important improvement in health bookkeeping is a result of 2 years' work done by a committee of the American Sanatorium Association, assisted in a secretarial capacity by members of the staff of the National Tuberculosis Association. The 23 new forms which have been prepared are obtainable from the Livingston Press, Livingston, N. Y.

MANY MEMBERS ASK THE CLUB for information on carrying a gun in their car while touring. Laws against carrying concealed weapons are fairly general, but the A. A. A. recently said that as a general rule, motorists will experience little difficulty with a revolver lying on the seat of the car or in the pocket of the automobile. Some states term a revolver in the pocket of the car a concealed weapon, but this does not always hold true and is not as serious as where the revolver is concealed on the owner's person.—*The Car*.

THE MEDICAL BOARD of the Philadelphia General Hospital has announced that several wards have been named for distinguished physicians who have been members of the hospital staff. Dedicatory ceremonies were held Dec. 4 in the auditorium of the hospital. President David Riesman of the Medical Board presided. Wilmer Krusen, a former director of Public Health of Philadelphia, was a speaker. One building is named the Sir William Osler Building and the wards are dedicated to the memory of the following physicians: Frederick P. Henry, Benjamin Rush, William W. Gerhard, David Hayes Agnew, Horatio C. Wood, C. Lincoln Furbush, Charles K. Mills, and J. Chalmers Dacosta.

PENNSYLVANIA HEALTH DAY programs were enthusiastically received throughout Lackawanna County again this year. A large number of neighborhood meetings were held in all parts of the city of Scranton and

in all of the outlying towns. The message of correct diet and proper preparation of food was carried by radio addresses, motion pictures, playlets, addresses, window displays, and many school and church exhibits. Much of the success of this enterprise was due to the perfect coöperation existing between the various local social agencies and the Lackawanna County Medical society.

AN IMPRESSION SEEMS to be going the rounds that Pennsylvania has increased the minimum driving age from 16 to 18 years of age for private car operators. This is erroneous. The minimum age for private cars is still 16 and no change is contemplated. However, paid operators must be 18, and drivers of passenger or school busses must be 21 years of age. Operators of private cars under 18 are warned, however, not to drive in New York State, which has an 18-year minimum law. Reciprocity between Pennsylvania and New York State is not applicable in this case and drivers under 18 caught in New York are subject to fine.—*The Car*.

SIX SPEAKERS PRESENTED the program of a graduate assembly sponsored by the Harrisburg Academy of Medicine at the Penn-Harris Hotel, Nov. 20, as follows: Lewellys F. Barker, Baltimore, "The Senile Patient: The Treatment of Pernicious Anemia"; John M. T. Finney, Baltimore, "Extra-Abdominal Conditions Simulating Intra-Abdominal Lesions"; Roy W. Scott, Cleveland, "The Heart After Forty"; Jacob Arnold Bargen, Rochester, Minn., "Colitis—Its Pathologic Physiology and Management"; John F. Erdmann, New York, "Tumors of the Colon"; John A. Kolmer, Philadelphia, "The Etiology, Diagnosis, and Treatment of Focal Infection."

APPLICATION BLANKS ARE NOW AVAILABLE for space in the Scientific Exhibit at the Atlantic City Session of the American Medical Association, June 10-14, 1935. The Committee on Scientific Exhibit requires that all applications be filled out on the regular form and requests that this be done as early as convenient. Applications close February 25, 1935.

Persons desiring application blanks should address a request to the director, Scientific Exhibit, American Medical Association, 535 North Dearborn Street, Chicago, Illinois.

PROFESSIONAL, RELIGIOUS, AND OTHER TITLES will not be regarded by the Bureau of Motor Vehicles as part of the name of persons seeking motor vehicle licenses, title certificates, or operators' licenses. Bureau officials, explaining the new regulation, point out that titles of such nature are not legally a part of a person's name and, in view of the frequency with which they may be changed, unnecessarily add to the difficulties of keeping the Bureau's vast filing system up to the minute. Barred by this regulation is the inclusion of titles such as "Fire Chief," "Doctor," "Captain," "Burgess," etc., on operators' and owners' cards and certificates of title.—*The Car*.

THE OPENING EXERCISES of Temple University School of Medicine were held Sept. 26, Dean William N. Parkinson presenting the members of the teaching staff to the students in the First Year Class. The enrollment for the session 1934-1935, is as follows: First year, 113; 2d year 107; 3d year 123; and 4th year 105. The total includes 122 new students, 107 admitted to the first and 15 to the third year class. These students completed their premedical courses in 53 institutions. There are 91 Pennsylvanians and 14 sons and daughters of physicians. The Freshman Class was selected from a total of 1002 applicants.

MORE THAN A THOUSAND investigators and research workers were present at the formal opening of the new Lilly Research Laboratories at Indianapolis on Oct. 11. The visitors were assembled in a mammoth tent erected for the occasion adjacent to the Lilly Laboratories. The speakers were Dr. Irving Langmuir, director of research for the General Electric Company, who dis-

cussed "The Unpredictable Results of Research"; Sir Frederick Banting, who spoke on "The Early History of Insulin"; and Sir Henry Dale, director of the National Institute for Medical Research, London, and secretary of the Royal Society, whose subject was "Chemical Ideas in Medicine and Biology." In the evening a banquet was tendered the out-of-town guests.

ON SATURDAY EVENING, Oct. 27, 150 members of the Lackawanna County Medical Society gathered at the Abington Hills Country Club at a testimonial dinner honoring J. Norman White, recently appointed chief surgeon of the Moses Taylor Hospital, succeeding Jonathan M. Wainwright, deceased. After dinner and an extended entertainment, the toastmaster, Charles Falkowsky, Jr. presented the speakers: Donald Guthrie, Sayre, and Clifford B. Lull of Philadelphia. The climax of the evening was reached when Martin T. O'Malley presented the honored guest with a large silver plaque and a bound volume containing the written good wishes and congratulations of every member of the society.

"DON'T CARRY LIQUOR in your car" even in the 28 states and the District of Columbia now legally "wet," is the advice of the A. A. A. following a national survey. "Legalization of liquors, wines and beer," said the statement, "has not affected the responsibility of motorists for the safe operation of their cars. In case of an accident, the mere fact that there is liquor in the automobile might have a damaging effect on the chances of the owner to avoid arrest or civil liability. And in the 20 states that still have constitutional prohibition, statutory prohibition or both, the regulations governing the transportation of intoxicants are most confusing and persons carrying liquors are liable to run afoul of the dry laws."—*The Car*.

ACCORDING TO THE *New York Times*, Oct. 28, 1934, *The Physicians Gazette* of Berlin published the following proclamation issued by Dr. Seiler, head of the Medical Association of Duesseldorf:

"In the election of Aug. 19 the Maria Hospital of Duesseldorf rejected the Fuehrer and National Socialism by a vote of more than 50 per cent. This election result represents a provocation of the profession, of the city and of the State. The Duesseldorf physicians will try to make good this alien attitude by the strictest boycott of the hospital to the point of economic annihilation.

"I therefore decree that any assignments to the hospital are rigidly forbidden. I will publish in a circular the names of all German physicians who in spite of this prohibition still assign patients to that hospital."

IT HAS BEEN ANNOUNCED that children of New York will be inoculated against infantile paralysis as quickly as a new serum, lately proved effective, can be produced, according to Dr. William H. Park, director of the city health department's experimental laboratories. The serum is developed from the spine of rhesus monkeys inoculated with the virus. The spinal cord is ground up in a solution of formalin which kills the virus without destroying immunizing qualities. At present the cost of the vaccine is approximately \$1 a dose. Rhesus monkeys cost \$9 each and one monkey produces enough vaccine to inoculate 12 children. Doctor Park said the city health department was considering a plan of having monkeys inoculated with the virus in India where they would be killed. Then the spinal cords only could be shipped to New York, thereby lowering the costs materially.

ONE NEVER KNOWS what will happen at a convention. At the recent general convention of the House of Bishops of the Protestant Episcopal Church held at Atlantic City, the House went on record in favor of permitting licensed physicians, hospitals, and medical centers to distribute birth-control information, which action was approved by a vote of 44 to 38. The Reference Committee endorsing the resolution approved the

(Concluded on page .xii.)



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NEWS ITEMS

(Continued from page 232.)

"Efforts now being made to secure for licensed physicians, hospitals, and medical clinics, freedom to convey such information as is in accord with the highest principles of eugenics, and a more wholesome family life, wherein parenthood may be undertaken with due respect for the health of mothers and the welfare of the children." The opponents considered that those who would benefit most are the manufacturers of contraceptive devices.

At the meeting of the Allegheny County Bar Association, Oct. 5, attorney Harold Obernauer introduced, and the Association unanimously passed, the following resolution:

"Resolved, That the president of this Association be and he is hereby empowered to appoint a committee of 3 members to be known as the Committee on the Medico-Legal Relations to meet with a similar committee of the Allegheny County Medical Society for the purpose of studying the field of medicolegal relations, exchanging views and data thereon, and suggesting legislation or devising improvements with respect thereto, and to report to this Association at its next regular meeting."

The committee of the Allegheny County Medical Society to coöperate with that of the Allegheny County Bar Association in medicolegal matters is as follows: James D. Heard, chairman, Robert L. Anderson, Otto C. Gaub, Evan W. Meredith, and John W. Simpson.

The American Association for the Study of Goiter again offers the Van Meter Prize Award of \$300 and 2 honorable mentions for the best essays on the subject of goiter provided they meet the standards of the award committee. The essays should be based on original research work on the subject of goiter, preferably its basic cause. The prize essay or its abridgement is to be presented at the annual meeting of the Association to be held in Salt Lake City, Utah, in June, 1935.

Competing manuscripts should be in the hands of the corresponding secretary, W. Blair Mosser, M.D., Kane, Pa., not later than April 1, 1935.

The first prize of \$300 for the 1934 meeting was awarded to M. A. B. Brazier, Ph.D., B.Sc., London, England, for her essay "The Impedance Angle Test for Thyrotoxicosis." First honorable mention was awarded Prof. Ugo Cerletti, Genoa, Italy, for his essay "Three Years of Experimental Research in the Etiology of Endemic Goiter." Second honorable mention was awarded D. Roy McCullagh, M.D., Cleveland Clinic, Cleveland, Ohio, for his essay "Studies in Blood Iodine using a New Chemical Method."

Book Reviews

From a reviewer we expect information and advice which will guide us safely and to our profit, warning us of the poor, the mediocre, the commonplace, and inviting our attention to merit.

THE ANATOMY OF SURGICAL APPROACHES.

Llewellyn C. Kellogg, A.B., M.D., professor of anatomy, College of Medical Evangelists, Loma Linda and Los Angeles, Calif. Cloth, 144 pages, 29 illustrations. William Wood & Company, Baltimore. Price, \$1.50.

This recent work serves a dual purpose. It contains both the descriptive text and laboratory directions of the surgical landmarks of numerous operations particularly the operations upon nerves, bones, and blood vessels. Designed to aid the surgeon and medical student, it will probably be of much more value to the latter than the former.

The chapter dealing with the surgical landmarks of the hand is particularly worth while.

(Concluded on page xiv.)



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BOOK REVIEWS

(Concluded from page xii.)

MEDICINE MARCHES ON. Edward Podolsky, M.D. Harper & Brothers, publishers, New York & London, 1934. \$3.50 net.

The author gives a review of the progress of medicine detailing such important events as the mechanism of the body's protection against infection, the present status of endocrine imbalance and therapy, of the development of surgery, treatment of the mentally sick, the value of oxygen as a therapeutic measure, also of the sunlight, and so on until the field is covered in a manner which can be enjoyed by those not trained in the science of medicine, and the most complimentary thing about the book is that it is not a bore to the professional mind.

SIR JOHN TO THE DOCTORS

At the fall reopening of the Westminster Hospital School Sir John Simon spoke on the old theme of "Specialism and Culture." How shall the professional man keep abreast of the knowledge of his own prime technical subject, fulfill the demands of a keenly competitive career, and at the same time not be too far behind in the field of general cultivation? It is a hard task, as he knows by experience. As a joke on his own tribe of wigmen he told of the judge who had never read any of Shakespeare and asked Serjeant Talfourd which play he should begin on. The Serjeant recommended "Romeo and Juliet."

A few weeks later Talfourd asked the judge if he had read the play. "Yes, I have read it. It is a tissue of improbabilities from beginning to end." Evidently that judge had a one-compartment mind. Sir John instanced Robert Bridges, who had appointments at several hospitals before he gave up practice. One of Vaccination Jenner's sidelines was ornithology. He was something of an authority on fossils and he wrote poetry. The list of rhyming and literary doctors is long.

In these days nobody can expect to be an encyclopedia on legs, but one can and should read:

His own line, modest as it was, was to read the classics. He meant the Loeb Classics, books having the Latin or Greek text on one side and a good English translation on the other. It was a great consolation, if they had had a thoroughly bad day, to return to these ancient founts and to reflect that these people had had the same worries, which were not on record.

A young doctor must have some acquaintance with modern languages and he ought to take "a decent interest in public affairs." Sir John's advice was sound. New, it could hardly be expected to be. It is pleasant to know that this sometime Fellow of All Souls and trained classical scholar isn't too highbrow to take his Greek and Latin in the most comfortable way; and when he finds a verse translation of a chorus a little too loosely "brilliant," perhaps he isn't above consulting good old prosaic Bohn, Master of the Ponies.—Editorial, *N. Y. Times*, Oct. 14, 1934.

Cocomalt suggests something new and interesting in the diet of the convalescent. It is so much more delicious than milk alone. Even those who dislike milk, refuse to drink it, welcome the refreshing, chocolate-like flavor of Cocomalt.

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THE DIAGNOSIS AND TREATMENT OF CANCER OF THE LARGE BOWEL*†

J. SHELTON HORSLEY, M.D., RICHMOND, VA.

The importance of cancer as a world problem is not fully appreciated. The fact that in the United States alone there are each year about 120,000 deaths from cancer, that about half of all of these deaths are from cancer of the gastro-intestinal tract and peritoneal cavity, and that many of these deaths could have been prevented by early diagnosis and prompt treatment is truly appalling. Cancer now rates as the second cause of death, next to heart disease, whereas in 1900 it was the sixth most important cause of death. The census of 1930 indicated that cancer of the stomach and liver caused 38,703 deaths, and cancer of the intestines, rectum, and peritoneum caused 17,151 deaths. Doubtless there is a larger incidence of cancer of the skin, lips, and mouth than of the gastro-intestinal tract, but as these lesions are more obvious and can be diagnosed and treated promptly, many of them are readily cured. The cured cases do not reach the mortality statistics of the Census Bureau, and so far as the death rate is concerned the gastro-intestinal tract leads all the rest.

Much has been said about finding a cure for cancer, in the same sense in which there is a cure for diphtheria or syphilis. But there is a very satisfactory and efficient cure for cancer. The trouble is that it is not applied early enough. Unfortunately, cancer is an insidious disease, not ushered in by chills, fever, or pain, and frequently cancer of the gastro-intestinal tract is far advanced before any marked symptoms occur. Cancer is usually painless in the early stages, and this often obscures the presence of the disease. If early cancer gave only a fraction as much pain as a toothache, the mortality rate from malignancy would be greatly lowered.

The 2 reliable remedies for cancer are surgical excision and irradiation, or a combination of

these. In some instances, as in cancer of the cervix and in lymphosarcoma, irradiation is the preferred treatment. In others, as in cancer of the stomach or colon, surgical excision is the most effective therapy. In still others, as in cancer of the breast, a combination of irradiation and operation produces the best results. The prompt application of surgical excision or of efficient irradiation should cure at least 80 per cent of all cancers if they are found in an early stage. There is no known serum or biologic test that will reliably indicate an early diagnosis of any malignant disease except in cases of chorio-epithelioma or teratoma of the gonads in which prolan A is found by the Aschheim-Zondek test. But such cases are infrequent and the disease is often well advanced before this test is applied. The nature of cancer, being caused by no micro-organism and arising from a local disarrangement of cells, would seem to indicate that any constitutional treatment, as by serum, would probably not be efficient. If the antitoxin of diphtheria were given on the sixth or seventh day of the disease and the patient did not recover, we would not blame the remedy but the late stage of the disease in which the remedy was applied. And so, if excision or irradiation or a combination of these is not applied in the treatment of cancer until the late stages, we should not discredit the method of treatment because of the time of its application.

In the early stage of cancer, before the surrounding tissue has been extensively involved and while the disease is still local, these standard methods of treatment which have been mentioned are extremely effective. About 75 per cent of cancers of the breast without metastasis are cured. Of cancer of the stomach, which is responsible for more deaths than cancer of any other organ and is too often considered hopeless, D. C. Balfour states that in his records about 50 per cent of the patients in whom gastric carci-

* Read before the Section on Surgery of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 3, 1934.

† From the Surgical Department of St. Elizabeth's Hospital, Richmond, Va.

noma confined solely to the walls of the stomach has been widely removed are alive and without recurrence 5 years after operation. Cancer of the colon is more readily curable than cancer of the stomach. The lymphatics do not appear to be so abundant nor so active as, and circulation is poorer than, in the stomach, so metastases seem to occur later. But there is the same problem of early diagnosis.

Irradiation in cancer of the colon has but little effect. Some have obtained good results from inserting radon implants around cancer of the rectum or lower sigmoid. In advanced cases undoubtedly this and other forms of irradiation properly applied are good treatment and, although usually not curative here, may retard the progress of the disease. In the colon, however, down to the terminal sigmoid, irradiation is not a very satisfactory remedy. Most of these cancers are essentially radio-resistant and, as they often lend themselves readily to a thorough surgical excision, it would seem unwise to delay too much by giving irradiation in patients in whom a wide extirpation by surgical means can be done.

As has been said, there is no laboratory test that is helpful in the diagnosis of cancer of the large bowel. The frequency with which cancer of the colon and rectum has been observed to spring from an ulcer or from a polyp is striking. If we accept the general opinion of most pathologists that cancer never arises directly from normal or healthy tissue, we must believe that cancer of the large bowel, as cancer elsewhere, springs either from a preëxisting lesion such as an ulcer, a polyp, a papilloma, or from some misplaced tissue. So often has it been observed through the proctoscope that cancer of the lower sigmoid or of the rectum arises from polyps that a benign polyp or ulcer must be regarded as the origin of a large percentage of cancers of the colon. In a case of mine (Mrs. C. C. S.) this is shown rather strikingly. The patient, age 67, had a large mass in the left half of the transverse colon. This was obviously cancer. It was excised, and around it were found several small adenomas in which there was some tendency to hyperplasia, but no distinct malignancy, whereas the malignant neoplasm showed a typical structure of adenocarcinoma. This patient, who was operated upon April 15, 1929, is now well and free from recurrence.

The early diagnosis of cancer of the colon and rectum, as of cancer elsewhere, frequently depends upon glorifying apparently insignificant and casual symptoms. The important thing in the cure of cancer anywhere, particularly of the stomach and large bowel, is to follow the illustrious example of the late Sir James MacKenzie

and attempt to recognize disease in its incipency. Trivial symptoms of digestive complaints should be treated most seriously, particularly in any one who is in the "tropic of cancer." One of the most important symptoms of early cancer of the lower bowel is the derangement of the regular habits of the bowel. If, for instance, a patient is accustomed to having regular bowel movements at a certain time of the day and he finds that on some occasions he is constipated, and at other times has what he calls a mild dysentery or diarrhea, it should excite suspicion. The dysentery or diarrhea may be not a productive diarrhea but a straining and tenesmus with the expulsion of some mucus and pus and a small amount of fecal matter sometimes stained with blood. Such a symptom demands thorough investigation, but often a simple careful rectal examination with the finger will readily detect cancer. How many patients with rectal cancer have become inoperable because the physician who first saw the case merely prescribed an ointment or a suppository for what was thought to be piles and no digital examination was made! A large percentage of cancers of the rectum can be diagnosed by digital examination alone. This examination should be made not only in the dorsal but in the knee-chest position, and with a rubber glove on the hand and not with a finger cot. With a finger cot there is often an inhibition against inserting the finger farther than the limits of the finger cot, an unconscious protest against soiling the hand with feces, and a thorough examination is not obtained. With a glove such an inhibition does not exist and an additional inch of territory may be explored. Naturally, this digital examination should be followed by a proctoscopic examination which will reveal the bowel beyond the limits of the palpating finger.

The function of the different portions of the large bowel must be borne in mind in establishing the diagnosis. The right half of the large bowel usually contains liquid or semi-liquid fecal matter, and its chief function is that of absorption, whereas the left half is chiefly a reservoir. The line of demarcation between the portions of the colon having these functions is not sharply drawn, and to some extent a deficiency of one portion may be substituted by an increase of this function in the remaining part. It will often be noted, for instance, that in an enterostomy in the lower ileum for a while the fecal matter is liquid as is normal in the ileum, but after a few weeks it tends to become semi-solid.

There is also a difference in caliber between the 2 sides. The lumen of the cecum and the first part of the ascending colon is much larger than the lumen of the left half of the colon.

Consequently, obstruction is infrequent in cancer of the right half of the colon but is very common in the left half. In fact, often one of the earliest symptoms by which cancer of the left colon is recognized is acute obstruction. This may be preceded by unusual constipation or by some distention which almost escapes the patient's notice until the acute obstruction sets in. In the right half of the colon cancer tends to be more of a fungating type or else an ulceration in which there is a large necrotic base with elevated margins. A small amount of frequent bleeding and the absorption of toxic products from such a neoplasm in the right colon may readily produce constitutional symptoms. Formerly it was thought that there was some specific toxin elaborated in cancer of the right colon, because so often anemia and sallowness of the skin were noted with cancer in this region. It has been shown, however, that there is no specific toxin or hemolytic product in this disease. The necrotic fungating cancer or the septic base of a large malignant ulcer furnishes a sufficient amount of toxic products which, together with a small amount of frequent bleeding that often comes from these lesions and the natural absorptive function of the right colon, readily account for the often noted anemia in cancer of the right colon.

Cancer about the ileocecal valve may obstruct, and I have seen a cancer in the ascending colon produce somewhat the same type of obstruction that is supposed to be typical of the left colon. We should not be too dogmatic in these statements, but, as a rule, obstruction is infrequent and anemia common with cancer of the right colon, whereas obstruction is common and anemia unusual with cancer of the left colon. In the left colon, too, and particularly in the terminal colon, there may be a soft papillomatous cancer, though the usual form is the so-called "napkin-ring type" in which a narrow band of the bowel is involved which gradually contracts with an ulcer on the constricting tissue. This is the type that rarely gives preliminary symptoms. Often there is no obvious bleeding or but a slight amount, and a gradual or sudden obstruction is the first symptom that calls attention to the lesion.

After the cancer of the colon on either side, but particularly the right, has involved the peritoneal surface and especially the adjacent parietal peritoneum, pain and tenderness occur. A local peritonitis, however, may come from the saprophytic and pyogenic infection that resides in the tumor, particularly on the right side, and will not infrequently give a tender area over the cancer, though this does not necessarily imply that

the cancer cells have extended to the region in which the peritoneum is inflamed.

Finally, as a great aid to the diagnosis of neoplasms of the colon the roentgen ray in competent hands is extremely helpful. It is, however, of practically no use in the rectum and the lower sigmoid region, which can be well explored by digital and proctoscopic examination. If cancer of the colon is suspected, the roentgenologic examination should always be made by barium enema and not by a barium meal, because the latter often forms lumps and masses in the bowel and if there is a constriction may precipitate an obstruction, whereas an enema will distend the bowel even more fully than a barium meal and the risk of obstruction will be avoided.

However, we must remember that diagnosis by roentgen ray depends upon a filling defect or an obstruction, and when these occur the growth has already been well established. The more carefully the roentgen-ray study is made, both by plates and the fluoroscope, and the more accurate the clinical observations are, the earlier the diagnosis is made. If there is any reasonable suspicion, for instance if there is unexplained bleeding from the bowel, and symptoms of pain or spasm appear at certain areas along the colon which cannot otherwise be accounted for, an exploratory operation may be justified. Of course, if there is a palpable growth the diagnosis may become fairly obvious.

It has been assumed that the presence in the stool of fresh or clotted blood that cannot be accounted for by hemorrhoids is significant of a lesion in the colon. This is usually true, but not always. I had a patient, a man, age 60, in whom there was a large amount of fresh clotted blood expelled from the colon, with no apparent lesion in the colon. We finally determined, after thorough examination and full roentgen-ray studies, that the source of the hemorrhage was an ulcer in the duodenum. The ulcer would bleed rather readily, the patient had a sensitive bowel, and a peristaltic rush carried the blood quickly into the colon, instead of producing the tarry stools usually found after duodenal hemorrhage. This, of course, is unusual, but it must be borne in mind.

Naturally, the terminal symptoms of extensive carcinoma of the large bowel, such as a large mass, ascites, and enlargement of the liver, are of no clinical interest so far as curative therapy is concerned, because nothing curative can be done at this stage.

In practically all cases of cancer of the large bowel surgical extirpation is the best procedure. Not infrequently in cancer of the rectum irradiation by roentgen ray or by properly applied

radon implants may be helpful, but certainly in cancer of the colon and sigmoid the prime treatment should be surgical excision. This treatment has gradually undergone a kind of evolution.

The function of the large bowel, with its poor blood supply and its contents teeming with bacteria, renders the application of surgery quite different from what it would be in the upper small bowel with its scarcity of bacteria and abundant nutrition. Surgery of the gastro-intestinal tract particularly must be based upon physiologic principles, and suturing the colon is always fraught with danger unless the proper preliminary preparations are made. The high mortality rate from operations upon the large bowel is due to peritonitis. We must strive, then, first of all to prepare the patient in such a way that this physiologic handicap, particularly of sepsis, will be overcome.

In the transverse colon and the left large bowel down to the rectum, the excision should preferably be in 3 stages. In the first stage a colostomy is made on the right side, and by a colostomy is not meant the mere insertion of a tube to relieve tension and draw off some fecal matter. The cecum and the first part of the ascending colon are mobilized sufficiently to be brought well into the abdominal wound, which is usually a muscle-splitting wound after the manner of a McBurney incision. Then a glass rod is inserted under the mesocolon and through a purse-string suture a rubber catheter is placed in a prominent part of the cecum. The bowel is surrounded by gauze in order to promote adhesions to the adjacent tissue. After 2 days the catheter is removed and an incision in the cecum about one and one-half inches (6 cm.) long is made. Care should be taken to make the incision not more than about one and a half inches and low in the cecum, which will render the subsequent closure easier. All of the fecal matter in this way goes through the colostomy wound. The remaining portion of the large bowel is irrigated with salt solution once or twice a day, both from above by slipping a catheter through the cecostomy and into the colon over the glass rod and also by giving salt solution as an enema. In this way the bowel is kept quite clean, and removing the fecal matter destroys the nutrient pabulum for bacteria and consequently lessens the bacterial growth. Another advantage is that the patient can take any kind of diet that seems to be good for his nutrition. These patients are almost always poor risks, and to limit them in diet to fruit juices and carbohydrates is not conducive to their well-being or to building up nutrition and resistance.

After about 2 weeks resection is done. Before the resection is begun, the liver and other portions of the peritoneal cavity should be explored for metastases. If there is a small metastasis in the liver or if there are a few involved lymph nodes that cannot be removed, this condition would not necessarily contraindicate a resection of the bowel. If the malignant growth in the bowel is large and septic, much relief can be secured by a resection, and the patient will live longer and more comfortably if he survives a resection than he would if a large septic mass remained. If he does not survive the operation, a miserable life has only been slightly shortened. This may be considered dangerous advice, and it must be cautiously taken. It is no warrant for doing a radical operation in the face of extensive metastases, but there are exceptional cases in which resection under the conditions described will be the best treatment for the patient.

The technic for resection depends upon the local conditions, but 1 to 2 days before the resection an intraperitoneal vaccine should be administered. We have found the most satisfactory vaccine that of Steinberg, of Toledo, coli-bac-tragen, which is a certain virulent strain of colon bacilli rendered sterile and suspended in a solution of gum tragacanth in physiologic saline. This appears to be much better than a vaccine that is not so suspended as the effect is more prolonged. Spinal anesthesia is usually indicated in these cases. If the tumor is rather large and adherent to the surrounding tissues, the dissection should be made with the cautery, even removing a portion of the abdominal wall.

A large or adherent growth, or one with much fat, should be mobilized as far as possible and brought into the wound as in a Mikulicz operation, except that the segments of the mesentery of the bowel to be resected are clamped, divided, and tied. Then the bowel is doubly clamped at the 2 points of proposed resection and sutured together in such a way that the walls opposite the mesentery will be in contact. The loop of bowel is cut away with the cautery, but the clamps on the stumps are kept on for several days. Later the spur is crushed by forceps and the opening is closed, frequently by a series of local operations. About 2 weeks after this has been effected, the colostomy is closed.

If, however, the tumor is not large, and particularly in the "napkin-ring type," an immediate union can be made. Rubber bands are used for coprostasis instead of soft-bladed clamps; the mesentery is severed. In order to insure a good

blood supply the mesentery should also be cut along its junction with the bowel until a spurt-flow of blood is demonstrated. Not infrequently the blood supply seems to be sufficient, but the ligated segments of the mesentery may have affected collateral branches. It is well to be sure that the blood supply is ample from the mesentery into the bowel. The bowel is then cut across, somewhat obliquely. The 2 ends of the colon are carefully mopped out with gauze soaked in mercuric iodide solution and sutured with silk or linen, beginning near the mesenteric junction of the bowel in such a manner that the 2 mesenteric junctions will not be opposed to each other. On the anterior surface this suture is applied as far as possible from within, drawing it snugly as the suture emerges from the mucosa at the left-hand end of the bowel and pressing on the bowel just behind the suture. In this way most of the intestinal margin can be inverted. The suture is tied to its original end. A series of interrupted mattress sutures of fine tanned or chromic catgut is inserted around the anastomosis. The ends are left long and passed through adjacent omentum or peritoneal covered fat, thus further insuring the safety of the sutures.

About 2 weeks after this the colostomy is closed. It is well to use the vaccine before the closure of the colostomy. The mucosa is inverted by sutures, the peritoneum opened by extending the abdominal incision. The bowel is then thoroughly mobilized and another row of sutures and finally interrupted mattress sutures of 00 tanned or chromic catgut are placed. The ends of the mattress sutures are passed through the upper margin of the abdominal incision, from the peritoneum through the internal oblique and transversalis muscles, in this way fastening the bowel to the parietal peritoneum. The abdominal wound, which has been a muscle-splitting wound, is closed very lightly if at all; just a few sutures are placed, but most of the wound is left open. Rarely will there be fecal drainage, and if this does occur it ceases merely by keeping the wound clean. The wound is dressed with vaseline gauze or with irradiated petrolatum.

Cancer of the right colon demands somewhat different treatment. Here an ileocolostomy should be done as a first stage, dividing the ileum about 6 or 8 inches above the ileocecal valve and suturing it to the transverse colon, preferably end to side. The technic of Rankin, or some modification, may be used, but as a rule in surgery of the colon the closed or so-called aseptic technic is not advised. If the bowel can be made as nearly sterile as possible, in other words, conforming to conditions in the upper

small intestine, and if a satisfactory vaccine can be given, open suturing is better. In the ileum, however, it is impossible to produce the beneficial changes that can be obtained in the colon after a colostomy, so that precaution against local contamination is wise.

After this anastomosis has been made, if the affected right colon can be mobilized easily, excision may be done at the same time; but if the patient's condition is not good and the growth is extensive, it should be carried out at a later stage. The excision is comparatively easy, for the distal end of the ileum has been closed and mobilization of the right half of the colon, with the division and suturing of the colon just to the right of the ileocolostomy, is all that has to be done.

The removal of cancer at the sigmoidorectal junction has always been a difficult problem. If all of the lower rectum is sacrificed in this excision, a considerable amount of unnecessary tissue will be removed that does not materially affect the prospect of cure. If it is sealed off as a blind pouch, it is of no functional use. With the complete colostomy previously described, an end-to-end union can often be made between the stump of the sigmoid and the stump of the rectum. After the ends of the bowel are prepared, 2 long tractor sutures of silk or linen are passed from the stump of the sigmoid to the stump of the rectum. Both of these are passed before either is tied. Then, the patient being in the Trendelenberg position, the stump of the sigmoid is shoved down into the pelvis while the sutures are tied snugly. They are held as tractor sutures while the 2 ends of the bowel are united with a continuous suture of linen or silk, approximating the margins between the tractor sutures first. The ends of the tractor suture may be used for the continuous suture. After this suture is completed, a series of interrupted mattress sutures of fine catgut is placed. As there is likely to be infection because of the lack of peritoneal covering, a stab wound is made in the left flank and a tube and probably cigarette gauze drain are placed through the stab wound. The sphincter ani is divided posteriorly.

Radical operation is usually wiser in all types of cancer of the rectum, except possibly in some early cancers around the anus or in localized polyps. I do a one-stage abdominoperineal operation, in which the upper stump of the sigmoid is brought by a forceps through a stab wound, the lower sigmoid and rectum mobilized, the peritoneum closed over the pelvis, and the patient placed in the dorsal or lateral position and the

bowel removed. The chief objection to this method has been shock, but if at the beginning of the operation an intravenous cannula is inserted and 5 per cent dextrose in Ringer's solution is continuously administered during the operation and if a transfusion of blood is given immediately after the operation, shock usually can be avoided. The disadvantages of leaving a sloughing mass containing cancerous tissue to be removed a few weeks later are obvious.

CONCLUSION

By careful observation, early diagnosis, and prompt application of a suitable operation, many patients with colonic and rectal cancer may be cured who are now permitted to die. Even when they are seen in a comparatively advanced stage, much often can be done in curing or in alleviating the pain of those suffering from cancer of the large bowel.

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THE DIAGNOSIS AND TREATMENT OF NONTUBERCULOUS PULMONARY DISEASE*†

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It is recognized that upper respiratory tract disease is an important cause of chronic bronchitis, bronchiectasis, and asthma due to infection. Enlarged and infected tonsils and adenoids, deviated septa, spurs, polyps, and malformed turbinates, which interfere with drainage and favor absorption, are the usual factors. It appears that sinus disease is more serious than tonsil infection. According to McCrae, transmission may be as follows: (1) By direct connection between the mucous membrane of the maxillary sinuses and the glands at the root of the lungs, this being most frequent in children; (2) the infection may pass downward by direct extension and result in thickening of the bronchial walls and surrounding tissues, one of the chief causes of bronchiectasis, chronic bronchitis, and asthma associated with infection; (3) lesions in the lower lobes, especially in the posterior parts, suggest 2 influences, inhalation and gravity; in the case of tenacious secretions, collapse of the lung may result. The diagnosis of nasal pathology is not difficult and the roentgen rays, bronchoscopy, and lipiodol injections are valuable for the study of the lungs and bronchi. The chief problem arises in differentiating between basal pulmonary tuberculosis and nontuberculous processes, and in determining the primary focus in certain cases with no, or indefinite, evidence of sinus disease. In these cases the history is extremely important.

Successful treatment depends largely on the type of anatomical change in the lungs and the duration of the process in the nasal passages. For example, dilatation, obstruction, or constric-

tion of the bronchus and retraction of the lung are rarely influenced although the nasal pathology may be minimal and treated satisfactorily. This is attributed to mechanical features causing retention of pulmonary secretions and trauma of the lung due to cough. Advanced sinus disease with marked discharge, causing gravitation of pus along the walls of the bronchi, is a factor in the aggravation of existing foci, but is usually less important than absorption in causing implantation in the lungs. The explanation for this is suggested in the studies of Childrey and Essex, who observed that drugs are not easily absorbed from infected sinuses, and in an editorial discussion of this work (*J. A. M. A.*, 98, 996, March, 1932) in which it was pointed out that bacterial toxins from infected sinuses are likewise absorbed with difficulty. If treatment is instituted at the onset of the nasal infection, when the mucosa is sensitive, extension through lymphatic drainage may be checked, the areas being allowed to heal. However, with marked thickening of the mucosa and profuse discharge into the larynx and bronchi, the treatment becomes largely a pulmonary problem.

In another group of nontuberculous pulmonary infections, variously designated as pneumonitis, chronic interstitial pneumonia, and chronic pulmonary fibrosis, there is greater difficulty in diagnosis. In contrast with the previous group there is often no definite evidence of upper respiratory tract disease and the findings in the chest suggest diffuse rather than destructive change. The medical history usually discloses a marked tendency to acute rhinitis, prolonged bronchial infection, whooping cough, and measles in childhood; in adult patients a history of influenza may be noted. The patients are usually underweight; fatigue and constant slight elevation of temperature are common. During the exacerba-

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† From the Medical Service of Dr. Thomas McCrae and the Department for Diseases of the Chest, Jefferson Hospital, Philadelphia, and the White Haven Sanatorium, White Haven, Pa.

tions the temperature may increase to 100°-101° F.; cough, slight expectoration, and pain in the chest are usually present. A striking feature in the physical examination is the basal involvement of the right lung. The râles are fine, sometimes obtained with difficulty, often persisting for several months after the acute symptoms have disappeared. The roentgenogram shows a patch of increased density, extending laterally or downward from the right root area. As the attack subsides there is a gradual decrease in the boundaries of the shadow, which may become lost in the density of the root markings. A characteristic feature is the history of extension and retrogression in the same area during previous attacks. Events in this type of nontuberculous pulmonary infections have been studied carefully by Krause. He believes that minimal permanent foci of infection, occurring especially in children, are residua of antecedent disturbances of the upper respiratory tract. Correction of the latter may have had no material influence on the intrapulmonary foci. The danger of this condition compares in some respects to tuberculosis in that acute colds lead to more and more severe clinical manifestations, due, no doubt, to the activation of the foci.

It appears from these considerations that there are 3 types of nontuberculous infections: (1) A pulmonary process closely related to early, active upper respiratory tract disease, in which treatment of the nasal passages may be of great value; (2) advanced pulmonary lesions, usually basal, characterized by marked anatomical change, functioning more or less independently of chronic upper respiratory tract infection, and requiring specific treatment of the lungs; (3) a process in the lung with acute transient extensions into the periphery from a focus in the hilum region, the clinical features resembling severe chest colds or bronchopneumonia, the treatment being not unlike that of tuberculosis.

The following cases illustrate this classification:

REPORT OF CASES

CASE 1.—H. G., a student, age 19, entered the Department for Diseases of the Chest of the Jefferson Hospital on Feb. 9, 1933, complaining of dyspnea, paroxysmal dry cough during the day, slight expectoration in the morning, and 2 or 3 asthmatic-like attacks weekly. The onset was about 6 months before, but mild symptoms had been experienced following several very severe head colds during the past 3 years. In the physical examination, coarse râles were heard throughout the chest. The studies of the nose and throat showed a deviated septum and clouding of the maxillary sinus on the left side. According to the roentgenogram there was an increase in the pulmonary markings with an area of density in the base of the lungs. A submucous resection was performed. On June 6, 1934, there were

no symptoms, the lungs were essentially normal, and the sinuses clear. Evidently this patient had an active focus in the upper respiratory tract, the infection having been absorbed through the mucosa and resulting in extension to the root areas of the lungs. With eradication of the focus healing occurred in the lungs.

CASE 2.—C. W., a mechanic, age 39, entered the Chest Department of the Jefferson Hospital on March 2, 1934, complaining of dyspnea, cough, profuse foul expectoration with pus dripping from the posterior nares, and a sensation of tightness in the chest. The onset was about 3 years before. The past history was irrelevant except that he had severe head colds for 9 years, often accompanied by headaches and a discharge into the posterior nares. There had been a series of radical operations on his nose and frontal sinus, the first 19 months before admission. Examination of the chest showed a long shallow thorax, a preponderance of the abdominal type of breathing, exaggerated breath sounds, and at times numerous coarse râles in the bases. Roentgenograms showed extensive changes involving the lower halves of both lungs—a definite suggestion of bronchiectasis; also marked clouding of the frontal and maxillary sinuses. The sputum examination showed no tubercle bacilli.

Since treatment of the nasal sinuses was ineffective and the patient's symptoms pointed to chronic pulmonary disease, bronchoscopy was done. The report was as follows: "The mucous membrane of the main and lower bronchi is congested, thickened, and roughened. The caliber of the tubes is increased and the orifices leading into the middle lobes are also large. There is considerable pus coming from the lower lobes." The patient received a series of bronchoscopic drainages (one weekly) with symptomatic relief lasting for about 2 days after each treatment.

It was evident that greater improvement could be obtained from 2 or 3 treatments weekly. As these could not be arranged and due to very troublesome inguinal hernias, a special abdominal support was tried. The purpose of this was to elevate and restrict the movements of the diaphragm and thus favor expulsion of products from the bases of the lungs. The support was worn for 7 months. Although the symptoms persisted, there was a striking decrease in their intensity and the patient gained in strength and weight. This case is an example of the advanced type of nontuberculous pulmonary lesions, with serious mechanical features, functioning more or less independently of chronic upper respiratory tract infection. Evidently nasal treatment and operations were without value because of the chronic state of the mucous membrane and the marked destruction of the pulmonary tissues. Treatment was considered on the basis of other suppurative processes. For this purpose bronchoscopic drainage and abdominal compression were employed.

CASE 3.—E. M., a stenographer, age 24, was admitted to the Chest Department of the Jefferson Hospital on Jan. 10, 1934, presenting a history of whooping cough in childhood, repeated and increasingly severe head and chest colds between 1926 and 1932, 3 attacks of pneumonia (1928, 1930, 1931), fatigue, and loss of weight. She was tall, thin, and poorly developed. The chest was long, flat, and with decreased expansion. On auscultation there were a few fine râles between the fifth and seventh ribs, posteriorly on the right side. A series of roentgenograms taken during a previous attack showed an area of density on the right side. Although there had been no definite sign of nasal disease, prolonged treatment had been tried.

While under observation she had a severe chest cold with a temperature of 101° F, pulse 115 per minute, and marked prostration. A roentgenogram showed a dense shadow in the hilum region, extending toward the base of the lung. The nose and throat examinations showed no anatomical changes except congestion in the posterior nares and minimal cloudiness in the left frontal sinuses. These were disregarded because previous treatment had been ineffective. The patient was placed in bed for a period of 3 months, part of the time being spent in the White Haven Sanatorium. The regimen was that used in the treatment of pulmonary tuberculosis. The temperature returned to normal on the tenth day, but the pulse was elevated until the twenty-eighth day. The symptoms disappeared and she gained 12 kg. in weight. The roentgenograms of the lungs showed marked clearing of the shadow, the last indicating a small knob near the hilum region.

Since effective treatment of nontuberculous pulmonary disease depends chiefly on the duration and characteristics of the primary focus in the upper respiratory tract and the alterations in the lungs, a careful study is essential. It is important that associated disease should be excluded. As Dr. Thomas McCrae has remarked: "It should be the rule to consider tuberculosis in every case with a history of cough lasting more than 6 weeks." Basal tuberculosis may closely resemble the picture designated as chronic pulmonary fibrosis. The symptoms are usually less marked than in tuberculosis of the apices and, curiously, tubercle bacilli are not easily obtained in the expectorated sputum. The physical and roentgen-ray examinations may not rule out tuberculosis. In all doubtful cases bronchoscopy should be employed and the secretions studied bacteriologically. It is important also to exclude the possibility of masked sinus disease. As pointed out by Kern in a study of asthmatic patients, roentgenograms taken at frequent intervals will sometimes reveal cloudiness that was missed in a single examination.

The management of upper respiratory tract infections with pulmonary complications should be systematic but conservative; intensive or radical treatment may reactivate the lesions in the upper air passages as well as in the lungs. In patients with pulmonary symptoms but with no, or indefinite, nasal disease, a period of rest in bed is indicated. For these the regimen employed in tuberculosis is invaluable. Every effort should be made to increase the body weight. A dietary high in starch and vitamin content, and containing 3 to 4 pints of milk daily is indicated. The supplementary administration of cod-liver oil concentrate in large dosage is of value in some cases. Since symptomatic improvement may not be an exact indication of the degree of healing, it is advisable to follow this group of patients carefully over a long period of time. In most

instances the patient should remain at home. Only if progress is unsatisfactory should a change be made. Some improve strikingly in the mountains or in the southwest, especially during the winter months. Postural drainage and bronchoscopy are of value in bronchiectasis if employed regularly and for a long period of time. A special abdominal support, as used in Case 2, may be effective in certain cases; some patients have experienced marked symptomatic relief. The elevated and restricted motion of the diaphragm favors rest for the lungs by directing their excursions somewhat evenly over different planes; evacuation of pus from dependent parts is facilitated due to the effective control of cough; the sudden rebound of the diaphragm following cough, which results in lung trauma, is prevented.

CONCLUSIONS

Nontuberculous pulmonary infections may be (a) processes closely related to early active upper respiratory tract disease, (b) processes due to primary foci in the lungs, characterized by exacerbations of signs and symptoms, and (c) advanced pulmonary lesions, usually basal with marked anatomical change, functioning more or less independently of chronic upper respiratory tract infection.

The active treatment of nasal disease should be governed largely by the degree of absorption and extension of infection; in advanced disease conservative treatment is recommended.

The regimen used in the treatment of tuberculosis is effective in pulmonary disease with features resembling frequent chest colds or bronchopneumonia.

In conditions with marked alterations in the structure of the lung the use of a special abdominal support is of value.

1832 Spruce Street.

ABSTRACT OF DISCUSSION

ROSS E. CHILDERHOSE (Allenwood): Dr. Gordon has confined most of his remarks to chronic diseases of the lungs that are related to pathology in the upper respiratory tract. I am very glad that he has pointed out this relationship. Secretions from infected sinuses travel down even to the smallest ramifications of the lower lobe bronchi. When these infections occur in the lower lobes, they give rise to perplexities in the differential diagnosis from basal tuberculosis.

In many cases careful and thorough sputum examination is necessary. At least 10 consecutive examinations, 24-hour collections by the concentration method, and guinea pig inoculation should be required before accepting the fact that the sputum is negative.

These nontuberculous cases are sometimes difficult to diagnose. It is so easy to have a false sense of security with 1 or 2 negative sputum examinations. As a result too many tuberculosis cases are being treated for chronic bronchitis, chronic pneumonitis, or unresolved

pneumonia. If the advice of Dr. McCrae were followed, that in any case with a history of cough of 6 weeks' duration, the question of tuberculosis should be considered, there would be fewer cases of advanced tuberculosis.

Infants and children sometimes get these nontuberculous infections, and we should not forget under those circumstances that there is a thoroughly reliable diagnostic measure in tuberculin. I should like to ask Dr. Gordon's opinion as to the value of therapeutic pneu-

mothorax and phrenicectomy for some of these basal lesions which perhaps have a unilateral distribution.

DR. GORDON (in closing): Artificial pneumothorax and phrenicectomy are without proved value in the treatment of nontuberculous pulmonary infections. They may be harmful in causing blockage of secretions, especially in the dependent parts. Compression may be considered in diffuse processes with mild tissue reactions in which destructive change is not a feature. Conservative measures should receive first consideration.

THE TREATMENT OF ANTRAL DISEASE*

WESLEY L. ALLISON, M.D., PITTSBURGH

Numerous articles have been written on the treatment of antral disease, and it is astounding to note the diversity of opinions and the little progress that has been made during the past several years, considering the great variety of drugs, nasal oils, *etc.*, which have been so highly recommended.

It is not my purpose to go into detail and mention the various kinds of treatment that have proved unsatisfactory and worthless or to advocate something new, but to refer to some of the important methods and principles which have impressed me as being most relevant.

Many cases of acute antral infections make a spontaneous recovery without the aid of a physician just as a large number of so-called head colds run a course of a few days to 2 or 3 weeks with complete restoration.

The acute infections of the antrum which the rhinologist is called upon to treat are chiefly cases of prolonged or recurrent head colds or those in which some complication has arisen—unilateral pain over the maxillary sinus occasionally in the supra-orbital region, or in neglected cases of longer duration a purulent discharge from one or both nostrils and often an offensive odor in the nose which dates back to the time of having had a bad head cold. Another class of cases are those of dental origin in which an antral infection has resulted from dental sepsis or extraction of teeth.

After the diagnosis of antral disease has been made, the first thing to consider is whether it is a simple bacterial infection, an allergic manifestation, or a combination of both.

The history of the case relative to sensitivity to certain foods, drugs, dust, feathers, living conditions, heredity, *etc.*, together with the general appearance of the mucous membrane of the nose, which appears thick, edematous, the surface

smooth or shiny pink with a mucoid discharge or often semipurulent, affecting chiefly the middle turbinate and usually bilateral, suggests an allergic condition and should receive primary consideration by desensitization or correction of the allergic condition in conjunction with the usual palliative treatment of simple, uncomplicated cases.

There are hundreds of different drugs and remedies for treating an acute case, but only a few of practical value will be mentioned: Rest, proper hygienic environment, restriction of diet, maximum quantities of fluids, juice of the citrus fruits, saline laxatives, systemic alkalization, and other general treatment as the individual case may warrant.

Shrinkage of the mucous membrane by local applications or sprays of a bland, nonirritating preparation of ephedrine or cocaine will give the desired results in the majority of cases. It is preferable to have the patient use a mild, slightly astringent nasal oil every 2 hours and the ephedrine 3 or 4 times daily.

The frequent use of ephedrine will often produce a reaction with more congestion and swelling than existed before, but this can be controlled to a great extent by using it less frequently together with small doses of atropine, 1/500 grain doses every 2 hours.

As the very acute condition subsides, applications of a 2 to 4 per cent solution of silver nitrate underneath the middle turbinate will stimulate drainage and relieve the congestion. When the secretion becomes thick and tenacious, large doses of potassium iodide, 15 to 20 grains 3 times a day, will reduce the turgescence, thin the secretion, make the patient more comfortable, and aid in recovery.

The patient should be seen every day or every other day, if possible, and the sinuses transilluminated to observe any change in opacity, also to note the severity of the pain and the presence or absence of fever.

* Read before the Section on Eye, Ear, Nose and Throat Diseases of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 3, 1934.

With the absence of fever, the pain decreasing, and opacity improving, surgical interference is not indicated; but if the opacity has not improved by transillumination or skiagraph within 10 days or 2 weeks, intranasal drainage is imperative. If the picture presents an antrum filled with pus, elevation of temperature, pain, and an acute, rapidly spreading cellulitis of the face, immediate drainage by the window operation should be done to avoid serious complications.

Cultures taken routinely are of utmost significance. In addition to the usual bacterial flora the *Bacillus diphtheriae* will occasionally be found, and the early diagnosis and prompt use of a large dose of antitoxin is very important.

During the past winter the pneumococcus was found in a large percentage of cases, and by the local use of 1 per cent optochin hydrochloride recovery was very noticeably shortened.

Vaccines seem to be used more extensively now than formerly, but still we are confronted with various opinions as to their usefulness. They are deserving of a trial in selected cases, particularly those cases associated with bronchitis in which there is a profuse mucopurulent expectoration, bronchiectasis, or asthma. Stock vaccines, on account of convenience, are probably more commonly used and are preferred by many, but the autogenous vaccines have given better results.

The simple window operation can be used successfully in approximately 92 to 95 per cent of consecutive cases of antral disease that require surgical treatment. A review of my cases for the past 10 years shows a decrease of 30 per cent of radical antrum operations as compared with the previous 10 years, with equally good or better results, accompanied by less danger and a great saving in time and expense to the patient.

We are all of the same opinion when we speak of the 2 major principles of antral surgery; namely, good ventilation and good drainage, but how many fail to carry out these principles in our practice!

A large opening underneath the inferior turbinate which will admit approximately 2 fingers is not adequate if the exit is obstructed by a large, hypertrophic turbinate, or deviated septum.

When the inferior meatus is blocked with a large, hypertrophic, turgescient turbinate, removal of the anterior end or pressing the turbinate outward toward the median line may not be sufficient; but removal of the lower border or shrinkage by electrocoagulation is necessary to establish adequate drainage.

Too frequently a large portion of the anterior end of the turbinate has been unnecessarily sacrificed in an effort to obtain good drainage. In the majority of cases it may not be necessary to remove any part of the turbinate.

A few years ago a well-known rhinologist stated that he had operated on 600 consecutive cases and had never found it necessary to remove any part of the turbinate. This has not been my experience.

If a deviated septum or spur interferes with proper drainage, it should be corrected by a submucous resection. Adenoids and large, hypertrophic, and diseased tonsils should not be overlooked, particularly in young adults and children.

A small intranasal opening with subsequent closure and return to normal is ideal, but are we justified in having 1 successful operation to a dozen or more failures?

Infections of dental origin with no osteomyelitis or necrosis of bone are most successfully treated by the window operation which should be done without delay. If a tooth is infected it should be extracted, and if an opening exists between the mouth and antrum it should be allowed to close to prevent reinfection of the antrum.

Presence of polyps or a thickening of the mucosa is not always an indication for the radical operation. Through a large intranasal opening the interior of the antrum can be palpated with a curet and by the sense of touch much can be learned as to the contents of the antral cavity. If polyps are present they can be quite satisfactorily removed with a properly shaped curet, preferably the Faulkner ethmoid curet.

If the polyps cannot be satisfactorily removed or if there is recurrence, a screened tube of radium inserted into the antrum 50 to 75 mg. hours will cause them to melt away with amazing rapidity and will relieve the edematous mucosa, resulting in a marked improvement in the opacity of the antrum. In many cases radium can be used with success but should never be used in an acute condition.

Another very common failure in antral surgery is frequent and persistent irrigations. After opening the antrum irrigate with a normal salt solution once or, if that is not successful in freeing the antrum of its contents, it may be necessary to repeat once or twice; but the continued frequent washing of the antrum will keep the tissues water-logged which means failure in the presence of good aëration and good drainage.

Frequently a thick, gelatinous mucoid substance is found in the antrum which shows no

bacterial growth and does not wash out readily by irrigation but requires removal with a swab or curet.

Failure to recognize and treat properly an ethmoid or frontal sinus infection will retard or prevent recovery as the antrum acts as a reservoir for these sinuses and is continually being reinfected.

The vast majority of rhinologists agree on the Caldwell-Luc operation as the choice if a more radical surgical procedure becomes necessary. Many cases are not cured by the intranasal operation, nor does the radical Caldwell-Luc operation permanently cure all cases of antral disease.

Some of the common indications for the radical operation are:

1. Failure of the window operation.
2. Foreign body or tooth embedded in the antrum.
3. Osteomyelitis caries or necrosis of bone.
4. If the antrum is filled with inspissated pus or a cheesy detritus, the nature of a cholesteatoma, or if septa are present in the antrum, direct exposure is necessary to remove its contents completely.
5. Chronic cases, associated with asthma or some other general infection, in which a complete and definite removal of the source of infection seems most advantageous.

8133 Jenkins Arcade.

ABSTRACT OF DISCUSSION

DEWAYNE G. RICHEY (Pittsburgh): The sciences are not equal nor do they necessarily preserve the same relative order of importance as time goes on. To this our basic conceptions and practical management of paranasal sinus disease in general and of the antrum of Highmore in particular are no exceptions.

It is a well-known biologic principle that to the various tissues of the human body has been given the power to recognize injurious agents according to intensity rather than kind. Accordingly, the nature of the defensive mechanism of a given anatomical structure is determined by the potency, not the type, of the harmful agent. It follows, then, that inflammatory reactions—often clinically indistinguishable one from another—can result from several types of injury such as mechanical, physical, or chemical. This is particularly true of the defensive response to pathogenic bacteria of the various epithelial linings of the upper respiratory passages, including the paranasal sinuses. It is important to identify the exact nature of the invading microbe or microbes in the individual case, simply because any hope of specific immunotherapy or chemotherapy depends on this knowledge.

In this connection I heartily endorse Dr. Allison's reference to the treatment of pneumococcal maxillary sinusitis by the topical application of that highly pneumococcicidal drug, ethylhydrocupreine (optochin) hydrochloride. It is especially effective in pneumococcus pseudomembranous pharyngitis, where ready access to the lesion is to be had, and in the otitides due to the

pneumococcus. Although accessibility to the antrum is considerably less, the ethylhydrocupreine hydrochloride can be introduced with safety via the normal ostium by puncture through the nasal antral wall or preferably through the usual operative fenestra in the naso-antral walls. The ethylhydrocupreine hydrochloride should be used as a fresh 1 per cent aqueous solution. I have given daily instillations of 0.5 c. c. without encountering any toxic manifestations. In the occasional cases of antritis due to Plaut-Vincent's fusospirillary organisms, fresh hydrogen peroxide followed by a few drops of potassium arsenite should be used. In *B. pyocyaneus* infections 1 per cent acetic acid rapidly disperses the invaders.

Hyperplastic sinusitis, with or without polyposis nasi, ordinarily affects more than one sinus. It is often associated with various allergic states, especially asthma, and I am in entire accord with Kern, Schenck, and others that the nasal hyperplasias are part and parcel of a constitutional allergic state. Even so, the fact remains that, as a rule, improvement in the asthma, however temporary, follows removal of the polypi. After surgical intervention designed to eradicate existing pathologic conditions without wanton sacrifice of important physiologic structures, radium should be applied both to the ethmoidal area and into the antrum through the naso-antral window. The radium, screened by silver and brass, is inserted in a capsule. The maximum dose at one sitting is 100 mg. hours. As with most other therapeutic agencies, the results vary considerably. Not infrequently decided improvement ensues; rarely is there no benefit derived. But recurrences are the rule, entailing repeated applications at intervals of from 3 to 6 to 12 months. In any event, I have as yet to see any deleterious effects from the radiation.

But, after all, the whole procedure in these cases is only symptomatic treatment. Consequently, it should be regarded as a therapeutic adjunct and not as a panacea or even a substitute for appropriate surgery.

F. EARLE MAGEE (Oil City): I should like to ask Dr. Allison about the bacteriophage treatment of chronic maxillary sinus infection. It was not mentioned in his paper but I should like to know his opinion of its beneficial results.

I agree heartily with Dr. Allison in regard to diet and particularly about the citrus fruits. The best results are secured by using citrus fruits. Cleaning out the bowels with Epsom salts is also beneficial. For children oil may be used, but for adults Epsom salts is preferred.

In regard to the treatment of acute sinus infection I agree with the essayist. In 1932 Dr. Dan Mackenzie of London said that he never did anything during his medical experience that was so beneficial to the patient and so gratifying to himself as opening the maxillary sinuses in acute infection.

Dr. Allison stressed the point of the window operation. A properly performed internasal operation (one in which the opening in the nose is made large, commencing well anteriorly and extending far back posteriorly) is probably the best method of treating the most chronic maxillary cases. There are, however, cases which must be operated upon radically, but not as many radical operations on the maxillary sinuses are being done as formerly since a large window is being made underneath the lower turbinate bone. By the use of a 35-degree-angle curet polyps can be removed, and in many cases the membrane can be cleaned out almost as well as by a radical operation. Cases in which there are

minute abscesses of the mucosa or destruction of the bony walls call for the radical operation.

DR. ALLISON (in closing): In answer to Dr. Magee's question, I have not had a sufficient number of cases

on which I have used bacteriophage to give an opinion, but I have had some very good results. The results obtained were either very good or there was no appreciable improvement.

VENOUS PRESSURE*†

Its Clinical Importance With a Simplified Technic for its Determination by the Direct Method

WILLIAM G. LEAMAN, JR., M.D., PHILADELPHIA

For a long time the idea prevailed that the heart was the only motive organ concerned in the circulation and that the arteries were simple, elastic, but relatively inert tubes. Consequently the heart and arteries always have been subjected to close study and the arterial pressure readings regularly estimated. As far as the clinician and general practitioner were concerned the pressure in the veins was a subject that rested in comfortable obscurity. However, modern investigations have shown that the circulation is not a simple problem in hydraulics. Peripheral circulatory phenomena have recently begun to receive the attention they merit and clinical attention has again been directed toward the desirability of measuring the venous pressure.

However, such measurements are by no means new. Two hundred years ago an English clergyman, Rev. Stephen Hales, measured venous pressure for the first time by inserting a glass tube or manometer directly into the convenient jugular of an old mare in the rectory of his parish of Teddington near London in 1733. It remained for Moritz and Von Tabora to apply this method to humans as late as 1910.

That similar readings could be obtained and venipuncture avoided has been amply shown by Von Recklinghausen, Hooker, Eyster, and many others. This, known as the indirect method, consists in obliterating a chosen vein by air pressure. The pressure within the vein is recorded in centimeters of water by a manometer tube attached to the apparatus. There are many instruments employing this principle in use today. Obviously in this method sclerosis of the vessel and thickness of the skin and overlying tissue tend to make the determination difficult.

Showing a distaste for the cumbersome laboratory apparatus of his day Gaertner championed the clinicians and pointed out that a visible vein may be considered as a manometer tube ending in the right auricle and the pressure therein

roughly estimated by elevating the arm until the chosen vein was just seen to disappear and recording the level above the heart as the venous pressure. This method likewise attracted attention and drew a following.

For the past 2 years at the Cardiac Clinic of the Woman's Medical College Hospital and in the medical wards of the Philadelphia General Hospital the older or direct method has been used. To possess any clinical attraction the apparatus must be relatively simple, easy to handle and sterilize, and at the same time give sufficiently accurate readings. We believe the apparatus (Figs. 1 and 2) now in use fills these requirements. It has the additional advantage of allowing blood to be withdrawn for the laboratory at the same time.

The apparatus (Fig. 1) consists of an 18-gauge needle (1), a special adapter (2), a 20-c.c. syringe (3), and an upright manometer tube with a 4 mm. bore graduated in centimeters (4). It can be assembled readily by any practitioner with little difficulty. The technic of its successful operation can likewise be quickly learned.

Before the venous pressure determination is made the patient should rest in recumbency on an examining table without a pillow for 15 minutes. During this time the apparatus may be sterilized in a shallow receptacle in 70 per cent alcohol. The patient's arm is prepared in the usual manner with iodine and alcohol and then supported until parallel to an imaginary line in the midaxilla which is the approximate right auricular level. A cuff of a blood pressure apparatus is next placed around the upper arm and inflated to 20 mm. of mercury to make the arm veins prominent. The apparatus is assembled with the needle on one end of the adapter and the syringe on the other. The stopcock of the adapter must be kept parallel to the needle (Fig. 2). As the needle enters the vein the amount of blood needed for the laboratory is drawn into the syringe and the air allowed to escape from the cuff of the blood pressure apparatus. The manometer tube is now fitted into the adapter perpendicular to the arm and the stopcock moved

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† From the Cardiac Clinic, Pennsylvania Hospital, the Philadelphia General Hospital, and the Department of Cardiology, Woman's Medical College of Pennsylvania, Philadelphia.

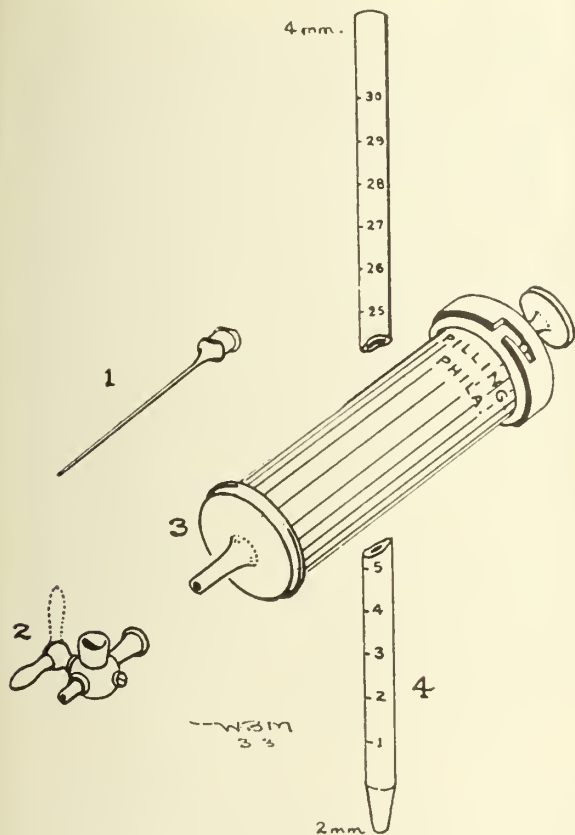


FIG. 1

up until it is parallel to the manometer tube. Blood will at once start up the tube. When the column has ceased rising the level on the tube is read. This is the venous pressure, which may be recorded as centimeters of water. To prove the absence of clotting and check the reading the cuff may again be inflated slightly. The column will mount promptly in the tube. The apparatus should now be removed from the vein and the blood transferred from the syringe and tube to the laboratory container. When subsequent readings are taken the needle may be introduced on the syringe and adapter or on the adapter alone with stopcock parallel to the manometer tube. The amount of blood lost at subsequent readings amounts to only a few cubic centimeters.

The venous pressure of normal patients at rest in recumbency ranges between 4 and 12 cm. of water. Exercise causes an increased flow of blood to the heart but in the presence of an intact myocardium the demand is almost immediately met, a greater discharge of blood into the arterial system takes place, and there is observed only a slight temporary rise in the venous pressure. In some subjects the slight temporary rise in the venous pressure is not encountered. If the heart is incompetent from disease there is a high venous pressure reading after exertion which, if sustained, is indicative of impending cardiac failure.

White, Barker, and Allen, studying venous pressure responses in patients suffering from heart disease, found that the closer the patient approaches the limit of working capacity the less the possibility of the venous pressure falling during the progress of the exercise. Departure from the normal venous pressure readings on light exercise is seen only in cases where the cardiac involvement is obvious. Venous pressure readings will not prove valuable in gauging myocardial capacity in patients in whom congestive failure is absent. In other words, the venous pressure readings cannot be used as a test for physical fitness.

Venous pressure readings will be found to be subject to diurnal variations. They are lower during sleep. The opposite is true in cases of congestive failure.

Age does not influence the venous pressure if the precautions stated above in obtaining the reading are followed. The patient must be at rest in recumbency for at least 15 minutes before the reading is taken and the vein placed at right auricular level. The state of dilatation of the peripheral capillary bed will then be a greater influencing factor than the patient's age on the venous pressure reading. The variations will, however, be within the range of figures stated above.

Respiratory variations in the level of the top of the column will be noticed as soon as the first venous pressure readings are made. During inspiration the negative intrathoracic pressure is greater and causes more complete emptying of

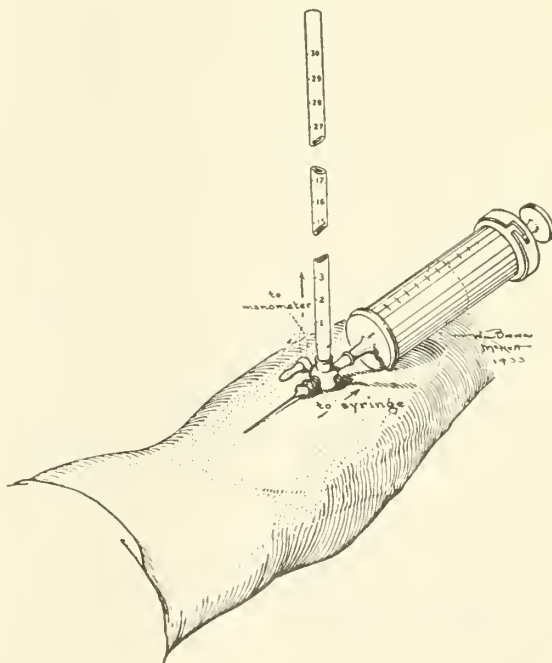


FIG. 2

the larger veins with a consequent drop in the peripheral venous pressure. The opposite is true during expiration. It is therefore quite important to have the patient quiet and the respiratory excursions normal and not exaggerated. Apnea will cause a rise in the venous pressure due to venous accumulation. This is seen during Cheyne-Stokes breathing. Extreme changes can likewise be noted for similar reasons during the performance of Valsalva and Müller experiments.

We have been unable to demonstrate any relationship between the venous pressure and the arterial pressure in the absence of congestive heart failure. The venous pressure readings of 105 compensated cases of hypertension at the Philadelphia General Hospital were found to be within the normal range.

Venous pressure readings have demonstrated their greatest usefulness in the field of cardiovascular disease. When early myocardial failure is suspected venous pressure readings are no longer of only academic interest but become of inestimable value to the clinician in diagnosis, prognosis, and treatment. When the cardiac mechanism as a whole is beginning to fail it is of great importance to learn this at the earliest possible time in order that prompt treatment may be given and the usual familiar picture of congestive failure avoided. This is particularly true in pregnancy, pneumonia, and at times in surgery if the usual signs of early failure are somewhat obscured. The first sign of beginning congestive failure is the elevation of the venous pressure or venous hypertension. In the differential diagnosis of allergic and the so-called "cardiac" asthma venous pressure readings are helpful and can readily be obtained by the direct method in the receiving ward. In pneumonia cases, in which the physician is ever on the alert for signs of circulatory failure, venous pressure readings are invaluable. They are likewise significant in warning against overloading the right heart by large intravenous injections.

Single venous pressure determinations like single blood pressure readings will prove of little value. It is the venous pressure trend that is significant. If the curve of venous pressure readings is rising there is evidence of the heart's inability to move the load from the right to the left side and this precedes (unless the warning is heeded) edema, cardiac dilatation, and reduction of urinary secretion and vital capacity. If the venous pressure readings show a clear-cut upward trend, little hesitancy should be shown in resorting to venesection in order that the right heart may at least be temporarily relieved of part of its burden. When the readings are

consistently over 21 cm. of water venesection is indicated. After this procedure the benefit is reflected in lower venous pressure readings, and if sufficient myocardial reserve is present the heart will respond to the lower load and the circulation will be carried on with a greater degree of efficiency. If, in spite of the venesection, the signs of congestive failure advance and the curve of the venous pressure readings is upward the prognosis is usually poor. In other words, if in spite of the usual measures of rest, venesection, digitalization, and relief of accumulated fluid in the serous cavities, the venous pressure trend is upward in cases of congestive heart failure, the immediate prognosis is poor. This is important to every clinician who realizes the value of accurate prognosis in cardiovascular disease. On the other hand, if the venous pressure readings show a steadily downward trend, clinical improvement may be predicted. Under such circumstances venous pressure readings are valuable in estimating the myocardial capacity of the patient.

Venous pressure determinations have been of great value in the Outpatient Cardiac Clinic of the Woman's Medical College Hospital in controlling the efficacy of digitalis administration. They have likewise helped in deciding the question of hospitalization in obese and pregnant patients with heart disease if the usual clinical findings were obscure or doubtful. The direct method for the determination of venous pressure lends itself readily to this work. It should prove just as useful to the physician in general practice. Patients with advanced heart disease who visit the clinic twice weekly can be accurately checked and a downward trend of venous pressure readings noted as digitalization advances. If there is an upward trend, the patient is advised to enter the hospital and balance is restored sooner than would be the case if the patient came in with the familiar picture of advanced decompensation. The patient is in the hospital a shorter period of time and this is an important saving both to the patient and to the hospital.

SUMMARY

1. The clinical usefulness of venous pressure readings in diagnosis, prognosis, and treatment of cardiac disease is again stressed.
2. A simplified technic for the determination of venous pressure by the direct method is described.

3700 Baring Street.

ABSTRACT OF DISCUSSION

HOWARD G. SCHLEITER (Pittsburgh): I have been much interested in Dr. Leaman's demonstration of what

appears to be a useful and practical method for estimating venous pressure and taking blood specimens at the same time. The amount of attention that has been given to the question of venous pressure in the past decade and the considerable number of varied methods devised for its determination attest to the very deserved interest in this procedure as an essential feature in a study of the circulatory apparatus. Both the direct and indirect methods have been employed, but it is my impression that for rapid determination and elimination of personal error, the direct method is simpler, more accurate, and less time-consuming than the indirect method. Venous pressure studies are particularly useful in indicating when venesection may be necessary. We are all acquainted with the fact that for many years bloodletting was a favorite and general cure-all until, as Osler said, "A bloody Moloch sat in the chair of medicine." As a result of its too frequently unwarranted use, venesection fell into disrepute. Due to the recent studies on venous pressure this invaluable therapeutic procedure has found its proper place.

In the absence of such conditions as collections of fluid in the chest or abdomen, new growths, or any other condition causing external pressure on veins, a rise of venous pressure to a level of 20 cm. or more points definitely to failure of the right heart. Cases of right heart failure with low arterial pressure tend to be acute or hyperacute. In these cases the great distress, the cyanosis, and the markedly engorged veins

give a reasonably satisfactory intimation of the necessity of bloodletting even without a venous pressure reading. On the other hand, cases of right heart failure with high arterial pressure tend to be considerably less acute and the venous pressure level is not very clearly suggested by the amount of venous engorgement that is observed. Nevertheless, the venous pressure reading in cases of this kind is often quite high and furnishes an explanation why the usual medicinal remedies have not been successful in combating a persistent rapid pulse, gallop rhythm, or peripheral edema. If the venous pressure is elevated over 20 cm. in cases of this kind a venesection is very likely to cause a turning point toward improvement and permits medicinal measures to become effective.

Two points with regard to venesection in right heart failure are especially worthy of mention. An adequate amount of blood should be removed. This amounts to 3.5 c.c. per pound of body weight. The amount of blood should be removed at one time, since the aim is a prompt relief of pressure upon the right auricle. The bloodletting is either successful or not successful within a period of 12 hours. If it is not successful, it is useless to repeat it. Another question that arises is whether a venesection should be performed in the presence of anemia. Where the indication for venesection is strongly marked the presence of anemia should not be a hindrance unless the hemoglobin is unusually low, *e.g.*, below 60.

TREATMENT OF ENURESIS—PAST AND PRESENT*

M. R. GOLDMAN, M.D., PITTSBURGH

Enuresis, more commonly known as bed wetting, constitutes one of the most baffling bugaboos in the practice of childhood medicine. Since time immemorial enuresis has been the nightmare and the bane of existence of physicians treating childhood diseases. We are all familiar with the well-known trio—the scolding father, the anxious mother, and the child with the wet diathesis.

What is enuresis? Enuresis is best described as the involuntary emptying of the bladder at an age when voluntary control should be established. The age limit for this voluntary control varies among different observers. The majority of therapists in enuresis agree that the ages of two and one-half years to 3 years are the limits of involuntary control of the bladder. We have been conservative in our clinic and have set 3 years as the age limit. Beyond 3 years of age a child having no cortical control of the bladder is considered an enuretic and treated as such.

Three types of enuresis are described. The first and most prevalent type is the nocturnal enuresis which concerns incontinence at night. The second type is the diurnal enuresis which

concerns incontinence during the day. The third type refers to the child who has incontinence both night and day.

HISTORY OF TREATMENT

The treatment of enuresis has long been a bone of contention among pediatricians, and even in our modern era of scientific thinking we are still floundering around in a labyrinth of pet theories and pseudoscientific treatments.

The ancients were much concerned about the problem as attested by Pliny, the famous historian, in his *Natural History*. He relates: "The incontinence of urine in infants is checked by giving boiled mice to their food, in fact, this would appear to be the most common folk remedy for this condition. Other remedies are that the child should wear a clean smock at baptism, that the godparents should keep their money in their pockets, and among other remedies is the consumption of wood lice and the urine of spaded swine."

Beginning with the year 1813 the popular modes of treating enuresis were neutralization of the urine, the use of belladonna, ergot, strychnine, and cantharides, and augmenting the tonicity of the bladder musculature by training the

* Read before the Section on Pediatrics of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 3, 1934.

child to hold the urine as long as possible. At that time some obsolete forms of treatment were rapidly losing their popularity. Among these relics were tying off the penis with a bandage, tying a bougie to the undersurface of the penis, use of India rubber bags for female children, and sealing up the urethra with collodion. Forty years later the fashionable treatment was (1) elimination of organic causes, (2) building up the resistance of the child by appropriate diets, (3) use of local treatment such as cold douches to the perineum, passage of bougie, and cauterization of neck of bladder, and (4) use of belladonna, strychnine, copaiba, and cubebs. A few years later potassium bromide was advocated in conjunction with dry suppers and elimination of fluids at bedtime. From 1872 to 1917 other forms of treatment were added. Among these were the use of warm baths, circumcision, galvanism, cantharides plaster over the pubic region, silver nitrate to neck of bladder, sleeping on back, the use of a hard mattress, awakening at intervals during the night, the use of belladonna and opium suppositories, the use of actual cautery to points around the anus, epidural injections of physiologic saline solution, and the injection of paraffin along and around the urethra.

Thus, the methods of treatment utilized in the past century have been reviewed briefly. How are we in this modern day of scientific acumen attacking this ancient problem of enuresis?

PRESENT TREATMENT

Almost every medical center has a clinic devoted to the study of enuresis. Three years ago such a clinic was established in connection with the pediatric outpatient department of the Allegheny General Hospital. Since that time about 100 cases have been studied. An enuretic admitted to the clinic undergoes a definite routine. A complete history, especially from the enuretic standpoint, is taken, followed by a complete physical examination. Routine roentgenograms are taken to determine the presence of any malformation of the lower spine such as spina bifida occulta. A urinalysis is done on every patient. Pertinent information is obtained on the child's nutrition, condition of the teeth, nose and throat, lungs, genito-urinary and gastro-intestinal systems. While this information is being collected, simple directions are given to the parent for beginning the campaign to make the child "dry conscious." These directions include limitation of fluids at bedtime, passage of urine before bedtime, avoidance of excitement before retiring, awakening of child at intervals during the night. Parents are instructed to keep a record of the number of wet and dry nights. To simplify and

systematize the history taking, we have compiled a questionnaire which is shown below.

QUESTIONNAIRE—ENURESIS CLINIC

- Nocturnal or diurnal?
- Age of onset?
- Continuous or intermittent?
- Number of times per night?
- How soon after retiring?
- Does patient awake?
- Frequency during day?
- Family history?

PREVIOUS TREATMENT

- Methods of control:
 - (a) Fluids restricted.
 - (b) Awakened at night.
 - (c) Medicines used.
 - (d) Punishment.
 - (e) Attitude of family.

NERVOUS SYSTEM

- Disposition active? Quiet?
- Sleep.
- Masturbation.
- Personal habits.
- Progress in school.

PHYSICAL EXAMINATION

LABORATORY

_____M.D.

To every parent is given an individual instruction sheet which includes a list of foods to be used in the dry diet.

INSTRUCTIONS—ENURESIS CLINIC

1. No liquids after 4 to 5 p. m. Extra water during early part of day.
2. Light evening meal.
3. No salty foods.
4. Keep as quiet as possible after 5 p. m.
5. Put child to bed early.
6. Pass urine before retiring and wake at night whenever possible.
7. Hard mattress on bed.
8. Raise foot of bed about one foot.
9. Plenty of fresh air.
10. Prevent sleeping on back.
11. Suggest to child not to wet bed and to pass urine in morning.
12. Light bed clothing.
13. Praise successes of child.
14. Do not punish child for failures.
15. Encourage child to break habit.

This condition is cured only by coöperation of parents, child, and physician.

DRY DIET

- Well toasted or dry bread.
- Crackers.
- Dry cereal with little rich cream and sugar.
- Jams, honey, eggs, bacon, cheese, sardines, ham.
- Boiled rice with butter, stewed fruit, cottage cheese.
- Gingerbread or cookies.

From the clinical evidence and laboratory data, we seek to eliminate, if possible, any obvious organic defects. The presence of troublesome ton-

sils and adenoids, nasal polypi, dental caries, vaginitis, elongated prepuce, vesical calculus, narrow urethral opening, rectal fissure, or malformation of spinal cord calls for appropriate treatment in the respective surgical clinics. Corrections of diet, constipation, intestinal parasites, strongly acid urine, anemia, malnutrition, or chronic constitutional diseases as tuberculosis are instituted by the various departments devoted to these disorders. Mild doses of tincture of belladonna and bromides are given to those children who are light and fretful sleepers.

After any obvious organic defects have been eliminated, the enuretic child is referred to the psychology clinic, which is under the guidance of a trained worker connected with the psychology department of the University of Pittsburgh. Here both the child and parent are studied and treated from the standpoint of functional derangement. Enuretics may be divided into 2 general groups. The larger group is composed of unstable children, in whom enuresis is just one rung in the ladder of a general syndrome. The smaller group is composed of those children who have not had the advantages of proper training in bladder elimination. Early training of the child in regular toilet habits will do much to initiate the youngster into the idea of being dry conscious. Sometimes an intervening illness will break down the habit of regularity and the treatment in these cases is obvious, namely, the reestablishment of regular elimination. In the larger group, in which enuresis is only one small link in the chain of general symptoms, the problem of treatment is much more difficult. In these cases it is necessary to enlist the aid of the child and the parent or guardian. Emphasis is placed on general cleanliness, absolute bladder regularity, reward for successes, and nonpunishment of failures. Change of home environment is sometimes necessary to insure efficient readjustment of daily regularity in the life of the child.

COMMENT

Enuresis, *per se*, is not a clinical entity. It is a symptom of an existing constitutional disorder, organic or functional. In undertaking the treatment one should strongly bear in mind the ever-present problem of prophylaxis in enuresis. The early training of the child will do much to prevent the incidence of enuresis in later childhood. Training in toilet habits should begin from 15 months to 18 months. At this age the child should be placed on the toilet upon awakening in the morning, before and after meals, and after the nap in the afternoon. This routine should be followed with scrupulous regularity. Nightly

training is hastened by placing the child on the toilet every night at 9 or 10 o'clock. Later in life (2 to 4 years) muscular control of the bladder is strengthened by having the child hold the urine when there is a need felt and attempt elimination when there is no need felt. Care should be taken in not overtraining the child since this may retard the ability of the child to hold the urine for longer periods of time. The actual treatment of enuresis should be directed toward elimination of any organic defect. If incontinence still persists, the enuretic should be placed under the guidance of a trained worker in child behavior problems. Enuresis is a problem of both the physician and the psychologist. In the following table, we have attempted to sum up the important statistical data in our clinic:

RÉSUMÉ OF 100 CASES OF ENURESIS

(Pediatric Outpatient Department—Allegheny General Hospital)

Average Age: 8 years.

Sex: Female, 40 per cent. Male, 60 per cent.

Etiology: Organic, 25 per cent. Functional, 75 per cent.

Types: Nocturnal, 80 per cent. Diurnal, 20 per cent.

Results: Organic: Cured, 60 per cent. Not improved, 40 per cent. Functional: Cured, 50 per cent. Not improved, 50 per cent.

SUMMARY

In this report the methods of treating enuresis as utilized by the ancients and by various observers of the past century have been briefly reviewed. The unesthetic rites of the ancients and the pseudoscientific methods of the nineteenth century are herein briefly described.

How the treatment of enuresis is undertaken in our modern day is portrayed by the routine in the clinic of the Allegheny General Hospital, which is fairly typical of such clinics in other medical centers.

The treatment of enuresis should be first directed toward elimination of any organic lesion such as congenital defects of the genito-urinary tract, phimosis, vaginitis, intestinal parasites, pituitary dysfunction, *etc.* Functional cases should be treated by psychotherapy and adjustment of unfavorable environment.

Enuresis is not a clinical entity. It is an evidence of some constitutional disorder, organic or functional.

1912 Fifth Avenue.

ABSTRACT OF DISCUSSION

H. HARRIS PERLMAN (Philadelphia): The modern treatment of enuresis calls for a consideration of the psychic mechanisms of enuresis, an analysis of the child's behavior, a readjustment of his environment, and reeducation in the child's personal and home hy-

giene. An analysis of the physical causes responsible for enuresis is essential.

In the treatment of the enuretic patient from a psychiatric standpoint, several points should be borne in mind. The psychotherapeutic régime should be planned with considerable thought, and none carried through which centers the child's attention upon his condition. Every effort should be made to influence the patient psychically. Pessimism in both the parent and child should give way to optimism. The mother should be instructed to avoid those methods which tend to discourage the child and interfere with his recovery. Scolding, nagging, and threats have no place in the modern therapeutics of enuresis. The child should be made to attain confidence and self-control. Patience and proper discipline are most essential.

In considering psychic etiology attention should be drawn to 2 classifications, since improvement often depends upon correcting one or the other of these causes:

1. As to the time of its recurrence, *i. e.*, whether enuresis is only nocturnal, diurnal, or both. If wetting is only nocturnal or diurnal it can hardly have a physical organic background. This distribution serves to distinguish enuresis from the standpoint of frequency.

2. As to the duration:

- (a) Has enuresis been present since birth?

- (b) Has the child been clean in this habit, and did enuresis develop later?

In the first instance the origin of the enuresis can usually be traced to a definite psychic trauma. In cases in which the symptoms have continued from infancy as well as those in which enuresis started at a particular time, the child is suffering from anxiety hysteria, *i. e.*, the child's anxiety (whatever the cause) is converted into a physical symptom of fear (involuntary wetting). Perhaps this is the reason why psychotherapy, suggestion with drugs, cures the symptom in a certain number of cases. Being a conversion symptom it is really an expression of an undesirable or unacceptable wish. Not infrequently this wish seems to be an envious one, *i. e.*, a wish to be of the opposite sex because of some person who belongs to that sex. This is seen in the typical dream that frequently accompanies the wetting. The child dreams he is urinating like a member of the opposite sex. A girl dreams that she stands up to urinate and wets the bed, a boy that he sits down.

The concept that enuresis is often a symptom of conversion hysteria is important from 2 aspects. After the symptoms develop the child soon learns, as do all hysterics, that the symptom may be used to advantage to obtain parental attention, to express antagonism to parents, *etc.* This secondary gain often makes the child unwilling to give it up. If it is true that enuresis is a physical expression of fear only and that no psychic fear is felt, then any treatment which removes only the symptom and does not reduce the etiologic fear is like treating a headache due to a brain tumor with one of the coal-tar derivatives, *e. g.*, acetylsalicylic acid. The pain ceases but the tumor remains. The fear is left and the child must defend himself in some other way against it. Other more serious hysterical symptoms may develop or a permanent alteration may take place in the child's character. The changed personality may not be manifested for several months and may escape the notice of the physician. The parents may attribute this alteration of the child's character to some other cause.

The first step, then, in the treatment of enuresis is a systematic search for any physical defects. Local irritation such as that produced by intestinal parasites or

an elongated foreskin should be remedied by proper methods directed to overcome the underlying etiology. So, too, diabetes, vesical and renal calculi, or a compensated nephritis must be treated appropriately by surgical and medical therapeutics at the pediatricist's command.

Specific medication should be reserved for the so-called functional group. There are 2 main types of medicinal therapy, *viz.*, antispasmodics and stimulants. The first class of remedies should be adopted when there is hyperesthesia of the vesical sphincter. Antispasmodics are essentially nerve sedatives.

The most useful drugs that may be employed as antispasmodics in the treatment of enuresis are (1) belladonna and its alkaloid, atropine, (2) the barbiturates, *e. g.*, phenobarbital, and (3) bromides, *e. g.*, sodium bromide. Stimulants are indicated for the hypesthesia type. They are represented by tincture of nux vomica and strychnine.

Many enuretics are also anemic and should therefore be treated from this standpoint by a well-balanced diet containing food iron supplemented, if necessary, by medicinal iron. Three of the best hematinics that may be employed for children are iron and ammonium citrate, syrup of ferrous iodide, and saccharated ferrous carbonate. These should be administered in full-sized doses for best results.

There is a third group of individuals in whom enuresis is dependent upon endocrine disharmony—hypothyroidism. The use of thyroid or thyroid extract combined with pituitrin (the latter for its tonic effect on unstriated muscle) is phenomenal in bringing about improvement.

In all cases of enuresis the dietetic management should not be overlooked. The usual routine of restricting fluids after the noon meal and the elimination of tea and coffee is paramount in importance.

Barbiturates are a class of remedies frequently prescribed for enuretics but with considerable apprehension by some members of the profession. Phenobarbital is a valuable aid to the therapist when treating enuresis in children. Its action is that of a nervous sedative, far superior to the bromides and at times more useful than atropine. When phenobarbital is prescribed for vagatonia, it should be given in the full-size dose without producing lethargy. A child age 5 may be given 1 grain before bedtime. I agree with Calvin in that the remedy should be continued for a period of at least 2 weeks until the habit is thoroughly broken and then stopped unless the disorder recurs. The dose should then be reduced gradually. Although it is true that the anxiety and fear complex is part of the picture of all children who are the subjects of enuresis and phenobarbital is indicated as a general routine remedy in most enuretics, its greatest usefulness is seen in the so-called high-strung child. Here its success in quieting the high tension of overresponsive nerves is unparalleled by any other remedy. Phenobarbital can be depended upon to accomplish results in this type of child and should be relied upon as a therapeutic agent in the manner and dosage indicated.

HARRY LOWENBURG (Philadelphia): I believe that, if 40 per cent of so-called organic cases of enuresis and 50 per cent of so-called functional cases remain unimproved, it is a question whether we have advanced very much further than the ancients and whether those cases that are supposed to get well under any treatment adopted would not have recovered of their own account.

The thought comes to me that the method of approach in the study of these cases has been entirely wrong. I have nothing particular to offer, but it seems to me that those who have been studying the question have not offered us anything new in the way of either etiology or treatment. Probably some day the cause for this condition may be found in body chemistry and its effect on neurogenic influences controlling bladder action and urinary output.

The thought came to me when the essayist referred

to the use of the urine of pregnant swine whether our forebears really might not have gotten results by reason of its content of antuitrin and perhaps of other pituitary substances, because some cases of enuresis will respond to the use of pituitrin. The best therapeutic results which I have obtained have been from the use of obstetrical doses of pituitrin plus large doses of fluid extract of ergot. Nevertheless, all treatment still remains empiric and prognosis in any individual case must therefore necessarily remain doubtful.

INFLUENZAL FRONTAL SINUSITIS COMPLICATED WITH MENINGO-ENCEPHALITIS*

Complete or Partial Paralysis of All the Cranial Nerves Except the Cochlear Branch of the Auditory, with Complete Recovery

PHILIP S. STOUT, M.D., PHILADELPHIA

The research work done by Dr. Richard E. Shope and his confrères at the Rockefeller Institute (of whom the late Dr. Paul A. Lewis was one) has shown conclusively on some 300 swine that influenza disease is due to several factors: (1) Pfeiffer's bacillus (*Hemophilus influenzae*); (2) the presence of filtrable virus; and, (3) the lack of immunity. In the absence of any one of these 3 factors infection does not occur. The swine influenza is very close to human influenza; in fact, it may be the same disease slightly changed by the effect of the swine. That swine are affected by influenza was brought to our attention during the epidemic in 1918. They developed the disease and some of the same complications found in human beings.

PROTEAN MANIFESTATIONS OF INFLUENZA AND SEQUELÆ

Any physician during the epidemic of 1918, especially if he was in a large military camp where there were thousands of men who developed the disease, was impressed by the sudden overwhelming illness which mowed down people in their prime, respecting no one. The strong and the weak, the old and the young, the rich and the poor, men, women, and children fell before it like ripened grain before the reaper, and all within a period of 3 or 4 weeks, when, just as suddenly, the illness would abate and not many additional cases would develop.

I was in service at Camp McClellan where there were over 5000 cases of influenza. The complications were principally pneumonia, pleurisy, bronchitis, otitis media, severe nasal hemorrhages, pansinusitis with bloodstained muco-

purulent discharge, mastoiditis, painful swelling of the glands of the neck, painful swallowing, trench mouth, some gastro-intestinal cases, and abscesses over the body. Other complications were simply missed because of the tremendous pressure under which the medical personnel worked, although cultures were made from the throats of all the patients. Of the 120 patients under my care, nearly 100 per cent had the *Bacillus influenzae* in pure culture; 4 had streptococci and pneumococci in the cultures and these developed pneumonia.

Since 1918, in a practice which includes private work, hospital work, orphanages, a day nursery, and other institutions, considerable opportunity has been afforded for observing the manifestations of influenza both during and after the attack. Among the more prominent conditions observed were fever, headache, malaise, backache, chilliness, sneezing, sore throat, laryngitis, painful swelling of the glands of the neck and painful swallowing, otitis media, long-continued nose bleed, pansinusitis with blood-stained mucopurulent discharge, mastoiditis, pain in the chest, unproductive cough, bronchitis, pleurisy, pneumonia, unresolved pneumonia, pain in the abdomen, nausea, gastro-intestinal symptoms, severe giddiness and vertigo, meningeal symptoms, lethargy, encephalitis, dementia, facial palsy, paralysis of the soft palate usually unilateral, sternal abscess, arthritis, and neuritis.

Some of the more remote effects were asthma, hay-fever, urticaria, cardiac manifestations, acute abdominal swelling without pain or temperature, mucous colitis, trench mouth, agranulocytosis, mononucleosis, anemia, eye symptoms, loss of hearing, loss of smell and taste, and finally, a lack of resistance to other illnesses, shock, and trauma.

* Read before the Section on Eye, Ear, Nose, and Throat Diseases of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 3, 1934.

It is not inferred that influenza caused all of these conditions, but, by careful history-taking and observation, it was found that they followed the influenzal attack. Time and again patients will say that the trouble began after an attack of influenza, especially if they had an associated pneumonia. I have seen patients who have had 2 or 3 attacks of influenza over a period of years, each attack having been followed by bronchial asthma.

The case to be presented for consideration may explain some of the strange sequelæ mentioned. It is one in which the severe symptoms began when usually patients are over the attack. During the 1918 epidemic most of the patients were convalescing in 7 or 10 days.

REPORT OF CASE

W. L., male, age 21, single, white, American, admitted to Graduate Hospital April 19, 1932, and discharged May 11, 1932. During the latter part of the 2 weeks of his illness before I first saw him, there was a severe northeast storm, cold, chilling rain, day and night. Although he had been in bed for several days, he insisted against the advice of his physician and parents on going out, and although he had a temperature of 100° F. to 101° F. he was out 3 days and nights in succession, which no doubt accounts for some of the severity of the symptoms.

Examination of the patient when I saw him first in his home: He was lying in bed, feverish, prostrated, complaining of intense frontal headache, and extreme tenderness over the frontal sinuses. Transillumination at the bedside showed dark frontal sinuses, cloudy anterior ethmoids, and clear antra. The nose and throat were congested, there was slight stiffening of the neck and a suspicious Kernig sign. The attending physician was advised that the disease had gone beyond the sinuses and that most likely there was an intracranial involvement; medication was suggested to relieve the intense headache, mild treatment to nasal mucous membrane, atropine, codeine, phenacetin, salol, and ice-cap to the head.

The next day facial paralysis was noted. Removal to hospital was recommended.

CHIEF COMPLAINT: Severe headache above and between the eyes.

PREVIOUS HISTORY: Usual diseases of childhood, pneumonia, and tonsillitis.

HISTORY OF PRESENT CONDITION: Began 2 weeks before with slight cold, followed 2 days later by a sore throat. About 5 days after the onset of the illness, was forced to go to bed on account of fever and generalized muscular pains. One week before began having severe headaches above and between the eyes, which have persisted intermittently. No nasal or postnasal discharge. Never had headaches previously. Two days before noticed inability to close his left eye.

PHYSICAL EXAMINATION: Poorly nourished male about age 20, who appeared listless. *Head:* Scalp normal. *Eyes:* The conjunctiva was reddened and there was some limitation of the upward motion in the left eye; the pupils were regular but fixed; there was no spontaneous nystagmus; unable to close the left eye. *Ears:* Slight congestion of Shrapnell's membrane and along the handle of the malleus, no bulging, no post-

auricular tenderness. *Nasi:* Mucous membrane red and swollen, mucopurulent discharge on both sides in the region of the middle turbinate, most marked on the left side. *Face:* Unable to wrinkle forehead; paralysis of entire left side. *Throat:* Congested, tonsils small, apparently not infected. *Neck:* No abnormal lesions or pulsations. *Chest:* Respiratory excursion regular and equal. *Heart:* Regular, no murmurs, second aortic sound accentuated. Blood pressure 144/84, pulse 64. *Lungs:* Negative. *Abdomen:* Negative. *Extremities:* Knee jerks unequal, accentuated on the right. *Tentative Diagnosis:* Bilateral, frontal, ethmoid sinusitis. Localized basal meningitis. Brain abscess.

Temperature on admission to hospital was 99° F., gradually increasing to 101° F. and dropping below normal one week later; it was subnormal for a few days, returned to normal, and remained there until his discharge 22 days after admission.

The pulse on entering the hospital was 120, probably due to the excitement of going to the hospital, dropped promptly to subnormal, remained there for a few days and then varied between normal and subnormal and up to 120, and with any excitement to 130, becoming more stationary as he improved.

The respiration remained at about 20 for most of his stay in the hospital.

LABORATORY TESTS: Urinalysis on admission was practically negative except for a few hyaline casts and an occasional pus cell. One week later there was a faint trace of albumin, 5 or 6 granular and 3 or 4 hyaline casts per low power field. One morning there were uric acid crystals. *Blood,* April 25, 1932: Red blood cells, 5,810,000; hemoglobin, 75 per cent; leukocytes, 9400; polymorphonuclears, 86; and, lymphocytes, 14. Kahn and Kolmer blood tests negative. *Spinal Fluid,* April 27, 1932: Amount, 3 c.c. clear and colorless; cells, 23 cm.; red blood corpuscles, none; protein, negative; sugar, positive; cells too few for differential smear; no organisms; culture, no growth; colloidal gold reaction, 0011100000. *Special Examination of Blood,* April 28, 1932: Creatinine, 3.9; blood plasma bicarb., Co₂, 65; urea, 65; chlorides, 296. On April 30, 1932, blood plasma bicarb., Co₂, 56 and urea, 378.

SUMMARY OF ROENTGEN-RAY FINDINGS OF SINUSES: Frontals, reasonably clear; ethmoids—no evidence of disease; maxillaries appeared normal; sphenoids large in size and clear; and, comparative examination of mastoids, negative.

SUMMARY OF FLUOROSCOPIC AND ROENTGEN-RAY STUDY OF ABDOMEN: Obstruction high in the small intestinal tract possibly due to an ileus or adhesions or enlarged nodes in the root of the mesentery. The liver was normal in size and measured 12 mm. in height and 22 mm. in length. There was no enlargement of the spleen. It is of more than academic interest to add that both diaphragmatic domes were normally placed and had equal synchronous movement.

SUMMARY OF EYE FINDINGS: Bilateral iritis; limitation of ocular motility to left; bilateral papillitis (more on right); some limitation in upper rotation in each eye, with more on left; bilateral keratitis, requiring a tarsorrhaphy on the left eye.

SUMMARY OF GASTRO-INTESTINAL FINDINGS: It seemed probable that the gastro-intestinal symptoms had been the result of a general systemic infection, causing an ileus of the small bowel, roentgen-ray signs of which were still persistent to some extent. The boy was basically of splanchnoptotic build and showed enormous dilation of the duodenum down to the point where

it crosses the spine, which is only seen in viscerotropic people. This condition is called intermittent arterio-mesenteric occlusion of the duodenum. The tendency of obstruction at this point was probably increased by the generalized ileus resulting from the injection.

SUMMARY OF NEUROLOGIC FINDINGS: Facial palsy, seventh nerve (bilateral); tingling on end of tongue, chorda tympani; eye findings account for second, third, fourth, and sixth nerve involvement, mostly bilateral; teeth felt as if laid in concrete, fifth nerve bilateral; cardiac symptoms and profound constipation akin to paralytic ileus, tenth nerve; weakness and numbness of right arm, involvement of eleventh nerve and brachial plexus; paralysis of postpharyngeal muscle, difficult swallowing, ninth and twelfth nerves; obtunding of smell and taste, first nerve; for several days the feet felt as if they were in the air, bilateral involvement of the vestibular branch of eighth nerve; no involvement of cochlear branch of eighth nerve could be made out, hearing normal.

DIFFERENTIAL DIAGNOSES:

1. Pansinusitis: Without meningeal complications.
2. Meningitis: High fever, irritability, slow pulse, rash, tache cérébrale, opisthotonos, marked stiffness of neck, marked Kernig sign, Brudzinski sign, and spinal fluid suggestive.
3. Tuberculosis: Hydrocephalic cry, irritability, tache cérébrale, delirium, and spinal fluid suggestive of tuberculosis.
4. Brain tumor or abscess, localizing symptoms.
5. Syphilis, positive blood or spinal fluid.

TREATMENT

Although diagnosis is very necessary, treatment is more important. Since all but one of this type of case which the writer had seen prior to this one were fatal, his opinion is that the management of the illness during the critical period is of the utmost importance. Appropriate consultations and efficient nursing are essential.

1. The patient must be placed in a hospital.
2. There must be careful medical and nursing attention during the entire 24 hours. Eternal vigilance is the price of success. This applies to the physicians as well. Temperature, pulse and respiration should be recorded every 2 or 3 hours; blood pressure taken daily; ice-cap to head if there is elevated temperature; hot water bottles when and where indicated; enemas and gastric lavage as required; continuous enteroclysis. All operative procedures are contraindicated; even suction and slight probing produce shock. For the eyes, use atropine 2 per cent, warm boric acid solution, argyrol, black glasses, compresses, and suturing of eyelids together to prevent damaging keratitis.
3. Medication: Mild sedatives, laxatives, stimulants, digestants, febrifuges, but no coal tar depressants, as these patients are poor risks and easily shocked. Use the simplest medication; consider the adult patient a child age 6 or 7. Ephedrine in oil dropped into nose, Dobell's

spray (no suction). Normal saline hypodermically.

4. Diet: Nausea and vomiting may make it impossible to give nourishment by mouth; then glucose intravenously is a life saver. Hot broth, peptonized milk, later on fruit juices, gelatin, soft diet, high caloric diet.

5. Drugs: Calomel, soda-mint, lime water for nausea; milk of magnesia, phosphate of soda, cascara for constipation; bromides for restlessness; for great pain or extreme restlessness, morphine sulphate grain $\frac{1}{6}$, atropine sulphate grain $\frac{1}{150}$, hypodermically.

SUMMARY

The patient, a young adult, had an attack of influenza followed in 10 days by severe frontal headache simulating frontal sinus disease, which we believe was present, but much more important were the meningeal complications. The important part was to diagnose this and treat the patient accordingly, avoiding all shock or trauma, watching every symptom. Most thorough and complete coöperation between the physician, the several specialists, laboratories, interns, and nurses made it possible to obtain a complete recovery.

269 S. 19th Street.

ABSTRACT OF DISCUSSION

JOSEPH C. YASKIN (Philadelphia): Perhaps for purposes of orientation I may say that the patient presented by Dr. Stout was a young adult in whom a diagnosis of sinusitis had been made, but who really had a fairly severe attack of encephalitis, nonepidemic type, and recovered.

Nonsuppurative encephalitis and meningo-encephalitis of the nonepidemic type occur much more frequently than is usually supposed. They follow a great variety of infections, but occur especially as a complication or sequela of the respiratory infections of the grippal and influenzal types. Since these infections are often accompanied by the implication of the paranasal sinuses, the latter receive all the attention while the neurologic complications are frequently overlooked. The severe headache is all too readily ascribed to an infection with poor drainage and ventilation of the sinuses, while the slight though readily visible changes in the cranial nerves are overlooked. Yet in acute cases the early recognition of meningo-encephalitis is of extreme importance.

It has been our experience that extensive manipulation of the sinuses, including traumatizing operations, especially on the posterior sinuses, is not only of no benefit but distinctly harmful in the presence of meningo-encephalitis. It is well to bear in mind that these infections are nonsuppurative in the majority of cases due to a specific neurotrophic virus and that recovery depends not so much upon drainage of possible foci as upon the development of immunity. In fairly well-developed cases such as the one reported by Dr. Stout, there is a selective involvement of the ganglion cells or of the white matter of the brain, a condition allied to the acute stage of epidemic encephalitis of the leth-

argic or St. Louis types, in which surgery is obviously contraindicated. The situation is entirely different in cases in which the nervous system is invaded by a purulent process from the sinuses or from ear disease. In these cases there are characteristic evidences of meningitis or of unilateral focal brain disease. But even in these cases considerable judgment should be exercised in operative procedures. It is well to clear out infected mastoid cells, but in the majority of cases it is better to avoid radical surgery on the posterior sinuses.

The diagnosis of nonsuppurative encephalitis is based upon the chronologic development of the symptoms, the objective neurologic findings, and the spinal fluid studies. Since we have no specific serum and depend upon spontaneous development of immunity, the treatment is entirely symptomatic. In order to treat these cases successfully, we must, in addition to using general supportive and comforting measures, formulate a clear idea as to the condition of the intracranial contents. If there is evidence of increased intracranial pressure as revealed by increased spinal fluid pressure reading, papilledema, slow pulse or vomiting, the best agents are hypertonic solutions, such as 50 per cent glucose intravenously, and at times repeated lumbar punctures. Two cases of aseptic meningitis due to sinusitis at the Graduate Hospital last winter recovered following repeated lumbar punctures, intravenous use of hypertonic solutions, and shrinking of the nasal mucosa.

Hypertonic solutions are useful in edema of the brain which may be signalized by mental dullness, headache, and vomiting. In the case reported by Dr. Stout the vomiting, consequent dehydration, and alkalosis were in my opinion due to edema of the brain stem with irritation of the vomiting center in the medulla. The patient's condition remained precarious until hypertonic solutions and chlorides were administered intravenously. Both increased intracranial pressure and edema of the brain may be helped by limiting the intake of fluids, but this is often considered inadvisable on account of the general toxic condition of the patient.

E. B. GLEASON (Philadelphia): The favorable outcome of this unusual case is due largely to the conservative manner in which drugs were employed. Children and the aged require much smaller doses than those in middle life. The same is true, but not as frequently recognized, in individuals who are desperately ill, and under such circumstances coal-tar products and other depressants are to be avoided. It is remarkable in this case how efficient the old-fashioned remedy of sweet spirits of niter was in bringing down the temperature. If, instead of sweet spirits of niter, some coal-tar product had been used, the result might have been fatal. Also, the fact should be stressed that any attempt to use strenuous local treatment was followed by partial collapse.

Apparently the condition was one of basilar meningitis, not extending, however, from the adnasal sinuses. The presence of sinusitis was, therefore, incidental and concomitant rather than causative, and the individual recovered from the inflammation of the adnasal sinuses practically without treatment in so far as the disappearance of the Pfeiffer bacillus is concerned. However, gripe inflammation of the mucous membranes often leaves patients with less resistance to other bacterial invasions.

EDMUND B. SPAETH (Philadelphia): This case of Dr. Stout's is quite interesting from one standpoint alone, in that it is a recovery following a definite and severe generalized encephalitis, influenzal in origin. Re-

covery from epidemic or lethargic encephalitis is the common outcome, but this is not the case in the other varieties.

The optic nerves were both involved in an inflammatory process, the third nerves bilaterally, the sixth certainly on the left and probably on the right as well, the seventh in its conduction of orbicularis fibers, and considering the severity of the accompanying keratitis the fifth nerve on both sides. In addition, the patient had a bilateral involved iris showing an acute plastic iritis. The severe keratitis on the left was probably an exposure keratitis, lagophthalmic keratitis, but it is quite doubtful if the bilateral iritis had anything to do with this.

It is quite likely that these manifestations represent both nuclear as well as nerve trunk involvement. The third nerve with its selection of the superior recti could hardly be through the nerve trunk. The sixth nerve involvement could be either one or the other, the seventh was most likely a nerve trunk condition, as also was that present in the fifth. The optic nerve involvement was a frank inflammatory papillitis and may well represent the type of inflammation present in the other nerve trunks. If this is true it can be seen why the orbicularis fibers from the third nerve nuclei, which were carried by the seventh nerve to their termination, should have shown such a complete paralysis. It cannot be stated definitely that the fourth nerve on the right was involved because it did not show positive oblique paralysis, but on the left there were signs rather suggestive of a palsy of this nerve. Here, also, it would be difficult to differentiate nuclear from nerve trunk involvement. At one time the pupils were fixed in dilation. If this observation was certain, then the bilateral internal ophthalmoplegia may be considered either as central or peripheral in origin. The plastic iritis must be considered as a rather separate entity, probably indicative of a blood-borne infection and having no direct relationship to or with the intracranial condition.

The addition of the impairment seen in practically all the other cranial nerves indicates the tremendous intracranial involvement present in the case. It is doubtful whether any other type of encephalitis, save that of lethargic encephalitis, is comparable, at least from an ophthalmologic standpoint.

One fact in the ophthalmologic treatment of this case is most important. Severe permanent impairment of vision would have occurred in the left eye if the permanent tarsorrhaphy had not been done. An exposure keratitis, present in a patient as severely ill as this man was, cannot be satisfactorily treated nor controlled without some type of protection to the cornea. Compresses, irrigation, and oil all help decidedly; but sooner or later corneal abrasion develops, secondary infection occurs, and the eyeball, if not lost, has permanent impairment remaining. Through the tarsorrhaphy the integrity of the cornea is almost certainly guaranteed. It is such a worth-while procedure and so readily done.

GEORGE W. MACKENZIE (Philadelphia): There are two points I would like to mention. One is that the influenza bacillus is hard to culture. As I understand, the petri dishes were put outside the room, but only one culture medium picked up the organism. I would like to know what culture medium was used. (Dr. Stout did not know.)

There can be no doubt from the clinical standpoint that this patient had basilar meningitis secondary to frontal sinusitis, probably pansinusitis.

Regarding the admonition against operation in cases

of this kind I do not quite agree with the essayist. If a patient is as sick as this one was it appears to me it would have been safer to operate than not. If you decide to operate, operate thoroughly. The fatalities do not come from overoperating, but from underoperating. Many patients with frontal sinusitis also have the ethmoids and other sinuses involved.

A Philadelphia roentgenologist diagnosed a case of my own as frontal sinusitis, and the patient was very ill. Operation was done a few days later at the Crozier Hospital in Chester, and the roentgenogram taken there was interpreted as ethmoiditis. At operation the frontal sinus was opened and nothing found. There was a partition, and the pictures showed the frontal sinus extending lateralward. The patient had 2 frontal sinuses and the lateral was an ethmoid which was drained with very satisfactory results.

In those cases of frontal sinusitis which have been most severe, if one is bold enough to operate thoroughly, including every sinus, the patient should make an excellent recovery with no temperature rise. There are atypical ethmoid sinuses extending in all directions, and if they are not included the patient will be quite sick afterwards.

J. J. SULLIVAN (Scranton): I should like to ask Dr. Mackenzie why he would have operated on this case that showed no manifestation, roentgen ray or otherwise, of an acute frontal sinusitis.

I should like to ask Dr. Stout on what he based his diagnosis. This case is more like a basilar meningitis. I cannot see why it is attributed to disease in the frontal sinus, when there were no symptoms of the latter. I saw a boy recently who had paralysis of the left facial nerve, inflammation of the eighth nerve, marked pain in the ear with perforation of the ear drum, vertigo, nausea and vomiting, and herpes zoster on the right tonsil; all of which were cured in 2 weeks with surgical pituitrin, 1 c.c. twice each day until cramps were produced. The large opening in the membrana tympani was produced by an otologist incising the drum on account of pain. The perforation was trophic and healed within a month. Roentgenogram of the mastoid and

middle ear was negative. There was no discharge. I agree with Dr. Stout as to the treatment pursued.

DR. SROUT (in closing): Regarding the discussion of Dr. George Mackenzie, I have assisted in operating upon some of these patients. The operation would be performed around 1 p.m. and by 7:30 p.m. the patient would be in the mortuary.

These patients with encephalitis do not stand shock. Therefore, weigh carefully all the evidence for and against operative procedure, for if you happen to operate on a patient such as the one I have reported that patient surely will die.

I believe that Dr. Sullivan's patient had a mild attack of encephalitis. The differential diagnosis is always difficult. Call in the neurologist, the ophthalmologist, the roentgenologist, and any other specialists who may be indicated. Even then proceed slowly in your decision to do a radical sinus operation.

I will give you an instance of encephalitis following an influenzal infection. A young man, age 20, attended a funeral Sept. 3, 1933. Two days later he developed fever, headache, and strange mental symptoms. He was examined and reexamined, and was in various hospitals and institutions with various diagnoses—dementia, dementia praecox, etc. Incidentally, his fever lasted about one week. He could walk around but he was weak and lost weight rapidly, dropping from 160 pounds to 130 pounds. He could not remember his name, could not spell although he had prepared for college, could not remember even his father or mother. All the laboratory reports were nearly negative. The head pains were present for some time after the beginning of the attack. Finally, about the middle of March, 1934, he awoke one morning and saw snow on the ground. He remarked, "That is strange. Last night when I went to bed it was nice and warm and this morning there is snow on the ground." He remembered nothing from Sept. 5 to the middle of March except once when he was pushed down stairs by another patient. As he landed at the bottom he awoke for a few seconds. After the middle of March he gained weight rapidly, nearly a pound a day, until he was back to 160 pounds. He is home and well.

THE MANAGEMENT OF CUTANEOUS RINGWORM INFECTIONS*

J. P. GUEQUIERRE, M.D., PHILADELPHIA

When the term "athlete's foot" appeared in print, patent medicine men seized their opportunity and the public was treated to a series of interesting advertisements. These men knew their psychology. They aroused the curiosity of some and appealed to the pride of others. Such advertisements as "She is a pretty girl, but she has ringworm of her feet" and "He is a desk-worker, but he has athlete's foot" led people to investigate themselves just as have those advertisements about halitosis and body odor. The result, of course, has been an increased public interest leading to a demand for the product advertised. But it has not stopped here. These

people want to be cured and eventually most of them consult a physician.

We should not resent this seeming intrusion into the field of medicine. These advertisements are serving a good purpose. They help the public by arousing its interest and ultimately leading patients into a physician's office, where other and more serious conditions may be discovered.

Ringworm infections are more common where large groups congregate than in the less densely populated areas. Swimming pools, locker rooms, and gymnasiums play a large part. With the younger people at college and summer resorts and the older ones at golf clubs, we may expect its incidence to increase in the rural districts. And that brings us to the purpose of this paper: A plea to all physicians to familiarize

*Read before the Section on Dermatology of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 3, 1934.

themselves with the clinical appearance of ringworm infections and the fundamentals of treatment so that they may extend relief and cure to patients consulting them.

The more common types of ringworm infections will be discussed.

Intertriginous Infection.—This occurs in webs of fingers and toes, groin, intergluteal crease, submammary folds. Between the toes, fissures accompanied by vesiculation and maceration of the epidermis are common. Maceration shows as white sodden tissue of various degrees of thickness. Fissures may become painful and secondarily infected.

The first step in the treatment of intertriginous infection is the careful removal of the macerated skin. If acute, use wet dressings or foot soaks—potassium permanganate 1:5000 or boric acid and resorcin $\approx$ 4.0 to a liter of hot water. Compress or soak feet for 1 hour 3 times a day. Follow with calamine lotion. Later use Whitfield's ointment, full or half strength. Some prefer to omit the benzoic acid and substitute ammoniated mercury or sulphur 4 to 5 per cent. Tar also has its advocates. The salve should be used only at night as it will cause irritation when shoes are worn. Three to 4 per cent salicylic in alcohol applied night and morning is efficacious. The addition of castor oil to the above reduces its sting and seems to hasten its action. For use during the day a dusting powder of 6 per cent salicylic and benzoic acid is invaluable. This should also be dusted into the socks, shoes, and slippers.

Vesicular Infection.—This is the most common type and is limited largely to fingers, palms, toes, and soles. Only rarely does it occur on dorsal surfaces. Vesicles should be opened and edges trimmed. Foot soaks, ointments, and dusting powder should be prescribed as in the intertriginous type. Roentgen rays are of great help, more so than in the intertriginous or circinate types.

Tinea Corporis and Tinea Cruris.—These types appear as circinate erythematous superficial scaly lesions with peripheral vesiculation and a tendency to clear in the center while extending peripherally. The treatment is largely medicinal. Use calamine lotion if acute, later salicylic acid 3 per cent in alcohol, one-fourth to one-half strength Whitfield's ointment at night and a Whitfield dusting powder in the morning.

Eczematoid Infection.—This is commonly observed on sides of fingers, palms, toes, soles, or on dorsum of foot. It usually yields to treatment outlined above.

Tinea Capitis.—This is essentially a disease of

childhood that clears spontaneously at time of puberty. It begins as a red papule or a scaly red spot around a hair follicle. This spreads peripherally with formation of a round circumscribed scaly gray patch. As disease persists the hair becomes lusterless and brittle, and breaks off, leaving the patch more or less bald. The alopecia, however, is only rarely complete. Usually there are broken, bent, twisted hair stumps to be seen.

Tinea capitis is highly infectious and a child so afflicted must be kept from school. Other children in his home or playing with him should be shielded from infection through precautionary measures. These include clipping his hair, shampooing every 3 or 4 days, wearing paper caps which may be burned each day, and the application of a medicated grease that will keep loose hairs from flying about.

Painting the patches with tincture of iodine several times daily until a crust is formed or the faithful application of a strong ammoniated mercury and salicylic acid ointment has cured many cases.

In the hands of an expert, roentgen-ray epilation is a clean and rapid cure. The use of thallium acetate, 8 milligrams per kilogram of body weight nude, is regarded by some as an accepted method of treatment. I prefer not to use it.

SUMMARY

Use soothing measures in acute conditions and stimulating in chronic. Individualize treatment. Vary percentage strength of drugs employed to meet the needs of the case at hand.

There are a number of drugs and a variety of prescriptions that can be used. All have merit, but none is 100 per cent in every case. Be prepared to vary the attack. Treat adequately but do not overtrear.

1930 Chestnut Street.

ABSTRACT OF DISCUSSION

FRED D. WEIDMAN (Philadelphia): Ringworm, particularly dermatophytosis, is not a clinical or etiologic entity. We think of syphilis and tuberculosis as examples of a protean disease, but Dr. Guequierre's lantern slides show that athlete's foot is not solely of the foot but appears also in the thighs, axillæ, and sometimes almost generalized. Therefore, there is no A. B. C. method of treatment of epidermophytosis. You must individualize and treat each case according to the stage at which the dermatophytosis presents itself on the patient as he appears in your office. No dermatologist will adhere to the same drugs in his treatment of these cases. One dermatologist, just as in eczema, will prefer solutions of boric acid as the soothing agent, and another will prefer potassium permanganate, etc. It makes little difference which application you use.

The industrial aspects of dermatophytosis are discussed in some fullness in the volume on dermatology in Davis'

new system of medicine, but the important thing is the necessity for the industrial plant to save itself trouble and a lot of discussion as to whether the employee is or is not entitled to compensation. This in turn hinges very largely on whether he acquired the dermatophytosis in the plant, which again revolves around the state of that individual's hands and toes at the time he was engaged as an employee. In short, all employees should be examined particularly as to the presence or absence of the disease. The corollary to all this is that if the physician in the industrial plant is the unusually well-versed and diversified internist, a pan-specialist, he may be aware of the extensive ramifications of which dermatophytosis is capable and determine most of the

more unusual variants. But, even then, the services of the dermatologist are necessary if all of the niceties of the multiple phases of dermatophytosis have to be discussed as they are presented in court.

DONALD M. PILLSBURY (Philadelphia): In connection with the roentgen-ray treatment of dermatophytosis of the foot, I have been impressed, particularly during the last summer, with the tendency of these cases to develop a dermatophytide after the use of roentgen ray, especially when it is used in any but very small doses. This reaction is most frequently seen in the acute bullous type of dermatophytosis. It is well known in connection with roentgen-ray treatment of kerion of the scalp.

REPORT OF STATE SOCIETY COMMITTEE ON APPENDICITIS MORTALITY*

JOHN O. BOWER, M.D., PHILADELPHIA

Patients admitted to hospitals with a diagnosis of appendicitis do not die of appendicitis; 82 per cent of them die of spreading peritonitis, 10 per cent of local peritonitis, and 8 per cent of other causes.

2769 develop spreading peritonitis and 1282 die. The mortality of spreading peritonitis is greater in Pennsylvania than in the United States as a whole.

SPREADING PERITONITIS—MORTALITY
1933

TOTAL NUMBER OF DEATHS				
Year	Spreading Peritonitis	Local Peritonitis	Other Causes	Total Mortality
1928-29	237	57	12	306
1930	124	11	14	149
1931	120	10	8	138
1932	101	5	16	122
1933	112	5	17	134
Total	694	88	67	849
	81.7%	10.4%	7.9%	100%

	Phila- delphia	Pennsyl- vania	United States
Number Cases Appendicitis	3783	20,107	250,522
Number Deaths Appendicitis			
Total			
Number Cases Spreading Peritonitis	455	2769	34,497
Number Deaths Spreading Peritonitis			
Per Cent Mortality Spreading Peritonitis			
	24.61	46.29	35.48

Of every 7 patients admitted to hospitals with a diagnosis of appendicitis, 1 has a spreading peritonitis and has 1 chance in 4 of dying.

SPREADING PERITONITIS

Year	Number Cases	Per Cent of Cases Admitted	Number Deaths	Per Cent Mortality
1928-29	698	13.54	237	33.95
1930	472	15.25	124	26.25
1931	491	15.62	120	24.44
1932	457	12.89	101	22.1
1933	455	12.03	112	24.61
Total	2573	13.77	694	26.97

In the State of Pennsylvania approximately 20,000 individuals develop appendicitis. Of these,

It will take at least another decade before surgeons can materially reduce the mortality from spreading peritonitis. We know this definitely because of our experience in Philadelphia. We know this is not the surgeon's fault, because there is nothing more difficult to manage than the patient who has a laxative-induced spreading peritonitis. Gynecologists do not have the same difficulty in handling patients with spreading peritonitis due to the gonococcus; the mortality is less than 3 per cent in hospital practice. They get well without operation. Nature takes care of them, but if, in addition to aerobes, the anaerobes are added a different picture results. Death does not take a holiday.

Here is a table showing the percentage mortality of patients with gynecologic peritonitis secondary to salpingitis.

* Read before the General Meeting of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 4, 1934.

SPREADING PERITONITIS—MORTALITY
SECONDARY TO SALPINGITIS

	<i>Number Cases</i>	<i>Number Deaths</i>	<i>Per Cent Mortality</i>
Farr & Findley	600	15	2.75
Millers	600	18	3

The mortality from spreading peritonitis following a ruptured appendix is 9 times that from spreading peritonitis of gonorrheal origin. Our experience in Philadelphia where the operative mortality has not been materially reduced in 5 years is evidence that the mortality rate from appendicitis must be reduced by prophylactic measures.

During the coming year the committee has decided to concentrate on one phase of the prophylactic aspect—the education of the high school student. The reason we have decided to do this is because 35 per cent of the patients admitted to our hospitals are between 10 and 20 years of age. In the United States there are approximately 6,500,000 high school students. This includes private and denominational schools. Of these, 58,000 develop appendicitis each year and 2906 die. In Pennsylvania, including the parochial schools, there are approximately 572,277 students.

ACUTE APPENDICITIS IN THE HIGH SCHOOL AGE
(35.3 per cent of all patients are between 10 and 20 years of age)

<i>Location</i>	<i>Population</i>	<i>Number High School Students</i>	<i>Deaths</i>
Philadelphia	1,990,975	101,000	31
Pennsylvania	9,631,350	572,277	175
United States	120,000,000	6,500,000	2010

It is the intention of the committee to warn these students. Dr. James Rule of the Department of Education is willing to coöperate with The Medical Society of the State of Pennsylvania. We have, therefore, arranged for representatives of the various county medical societies to speak to the high school students. The first talk will be on Armistice Day. The high school student of today is the citizen of tomorrow, the potential head of a family. If we educate these students completely and constantly, in 10 years we shall solve the most difficult part of our problem. They must be advised that abdominal pain is a warning that something is wrong with the abdominal organs, that anyone suffering from abdominal pain should not take anything by mouth, that he should not take a laxative, that he

should call his family physician immediately, that abdominal pain which persists for 6 hours is usually serious.

It is the aim of the committee to place in the hands of the student the sticker warning, to be attached to the cover of his book, with the request that he take it home and show it to the family. He will be told that when anyone develops appendicitis delay and death walk hand in hand; that if patients are admitted to the hospital within 24 hours they have but 1 chance in 50 of dying; if they are admitted within 48 hours, 1 chance in 22; if they are admitted within 72 hours, 1 chance in 16; and if they are admitted after 72 hours, but 1 chance in 11.

MORTALITY—DELAY
1928-1933 Inclusive

<i>Total Number Cases Admitted to Hospital</i>	
5935	Within 24 hours—115 or 1 in 52 died
6608	Within 48 hours—294 or 1 in 22 died
2659	Within 72 hours—156 or 1 in 17 died
3485	After 72 hours—284 or 1 in 12 died
18,687	849 or 1 in 22 died

He will be advised that laxatives cause death in patients with appendicitis because they increase the activity of the intestines. This activity spreads the inflammation and a spreading peritonitis develops. Of all patients who develop a spreading peritonitis as the result of a ruptured appendix (there were 34,497 such cases in the United States during 1933), approximately 12,240 or 1 in 3 die. Laxatives cause death by producing spreading peritonitis. Patients do not die from appendicitis; they die from spreading peritonitis. Laxatives, spreading peritonitis, and death walk hand in hand. A patient admitted to the hospital with the diagnosis of acute appendicitis has only 1 chance in 57 of dying if he has not taken a laxative.

MORTALITY—LAXATIVES
Laxatives Not Administered

<i>Year</i>	<i>Total Number Cases</i>	<i>Number Patients Not Given Laxatives</i>	<i>Deaths</i>
1928-29	5121	393	12—1 in 33 died
1930	3095	402	5—1 in 80 died
1931	3142	390	2—1 in 195 died
1932	3546	508	5—1 in 103 died
1933	3783	1322	29—1 in 45 died
Total	18,687	3015	53—1 in 57 died

If a patient has taken 1 laxative, he has 1 chance in 18 of dying.

MORTALITY—LAXATIVES
One Laxative Administered

Year	Total Number Cases	Number Patients Given One Laxative	Deaths
1928-29	5121	1508	85—1 in 18 died
1930	3095	889	62—1 in 14 died
1931	3142	1015	57—1 in 18 died
1932	3546	987	43—1 in 23 died
1933	3783	905	39—1 in 23 died
Total	18,687	5304	286—1 in 18 died

If a patient has taken more than 1 laxative, he has 1 chance in 9 of dying.

MORTALITY—LAXATIVES
More Than One Laxative Administered

Year	Number Cases	Number Patients Given More Than One Laxative	Deaths
1928-29	5121	163	32—1 in 5 died
1930	3095	103	15—1 in 7 died
1931	3142	112	12—1 in 9 died
1932	3546	187	13—1 in 14 died
1933	3783	164	9—1 in 18 died
Total	18,687	729	81—1 in 9 died

In Philadelphia during the past 4 years:

644 took citrate of magnesia	58 died
595 took castor oil	41 died
590 took salts	37 died
321 took milk of magnesia	13 died
256 took ex-lax	10 died
52 took cascara	1 died
34 took sal hepatica	5 died
32 took feenamint	1 died
28 took alophen	2 died
15 took calomel	1 died
15 took castoria	3 died
6 took rhubarb	1 died
6 took phosphate of soda	1 died

This table shows the deaths in decades and the number who died in the high school age.

DEATHS IN DECADES

	1 to 10	11 to 20	21 to 30	31 to 40	41* to 50	51 to 60	61 to 70	71 to 80	81 to 90
1928-29									
Cases	621	1803	1413	697	323	181	79	4	..
Deaths ...	42	61	48	58	42	34	19	2	..
Mortality .	6.8	3.4	3.4	8.5	9.9	18.8	25.5	50.0	..
1930									
Cases	336	1097	848	419	225	118	44	7	1
Deaths ...	13	31	21	26	27	19	9	3	..
Mortality .	3.9	2.8	2.5	6.2	12.0	16.1	20.5	42.2	0

The president of each county society will be asked to appoint speakers for each high school and to supply them with information, sticker warnings, and slides if necessary. The sticker warning sent out is as follows:

WARNING

In the presence of abdominal pain
Never give a laxative or physic
Give nothing by mouth
Call your family doctor

Abdominal pain, cramps, or soreness which lasts over 4 hours is usually serious.
This warning is published by The Medical Society of the State of Pennsylvania.

How much will it cost?

COST OF APPENDICITIS CAMPAIGN
Philadelphia 1928-1933

20,000 Public Health Bulletins	\$2165.00
20,000 Health Fax	400.00
270,000 Stickers	276.00
Salaries	4200.00
Total	\$7034.00
Approximate cost per year	\$1500.00

COST OF PUBLICIZING UNITED STATES

\$1500 for each 2,000,000 persons.
\$90,000 to publicize 120,000,000 for 1 year.
\$450,000 to publicize 120,000,000 for 5 years.
20,000 die annually in United States from appendicitis.
Reduction in mortality—41 per cent.
8200 saved at end of 5 years.
Each life saved cost \$55.00.

2008 Walnut Street.

ABSTRACT OF DISCUSSION

JOSEPH F. REPLOGLE (Johnstown): During the past 20 years many articles have been written on the diagnosis and treatment of appendicitis, many symposia on the subject have been held, and the public has been given considerable propaganda. We began to feel that we knew everything that was to be known about appendicitis. It became a trite subject. We sat back in smug contentment, and with what result? Finally we were rudely awakened to find that from 1910 to 1928 the mortality from acute appendicitis had not decreased but had actually increased 36.05 per cent. The statement that the mortality in the United States from acute appendicitis is higher than in any other civilized country in the world seems to indicate that we as a profession must stand indicted and be found guilty.

Besides delay in hospitalization and laxative administration certain other factors responsible for this high mortality should be emphasized. First, consider the druggist. Often a person will go to a druggist for pain in the abdomen or indigestion and ask for something for relief. Too frequently he is given a dose of castor oil, citrate of magnesia, paregoric, or even the druggist's pet proprietary dyspepsia compound. Second, consider the teaching in the medical schools. The typical picture of acute catarrhal appendicitis as taught does not portray acute catarrhal appendicitis, the stage in which the surgeon wishes to receive the case, but is rather

that of an early local peritonitis. Also consider pain, tenderness, fever, nausea and vomiting, rigidity, accelerated pulse, and leukocytosis. Only about 69 per cent of cases are typical in their picture; only about the same percentage show fever, and that usually of a very minor degree. In a survey in the Johnstown, Pa., area the average temperature was 99° F. Only about 55 to 60 per cent of all patients have an accelerated pulse, and only 80 per cent have leukocytosis. There is only one constant symptom present in 100 per cent of cases, and that is pain; there is only one constant physical finding and that is tenderness; also there is only one corroborative laboratory test, and that is for leukocytosis, which fails in 20 per cent of the cases. I challenge the diagnostic acumen of the surgeon who claims to be able to tell the severity of the disease by the degree of tenderness of the abdomen. Apparently only the parietal peritoneum is sensitive to pain, and a retrocecal appendix may be gangrenous or of the acute plastic type with only moderate tenderness. Only pain and tenderness need be present to make a diagnosis of acute catarrhal appendicitis.

Eighty to 85 per cent of deaths occurring from acute appendicitis are due to spreading peritonitis. Many surgeons make their greatest error of omission in failing to auscult the abdomen properly. It is infinitely more important and more logical to auscult an abdomen with the ear or by a stethoscope than to auscult the

heart and lungs. Almost regardless of the pathologic condition of the heart and lungs, operation must be performed in acute appendicitis; but the decision to operate and the determination of the time of the operation may depend wholly upon the findings of auscultation of the abdomen. If on listening to an abdomen there is exaggerated, increased peristalsis, particularly after castor oil has been given, we had better do as Dr. Deaver used to tell his interns: "Well, boys, we will operate and cut out the castor oil." And, conversely, if the abdomen is silent or if there is a faint tinkling indicating early distention of intestinal loops, even without any general abdominal distention, it is best to wait, for nature already has begun to localize the infection and already has begun to immunize against that infection. It is somewhat akin to operating upon a case of acute lymphangitis before localization. Peristalsis ceases very rapidly after perforation of an appendix; consequently, proper auscultation is important.

The problem seems to be to conduct new and up-to-date surveys throughout the state, as has been done in Philadelphia, so that the profession and the public can be shown just what the situation is today; so that the public may be made appendicitis conscious and the profession not only appendicitis conscious but acute catarrhal appendicitis conscious. By so doing the mortality from acute appendicitis will not only be reduced but also the mortality from other acute abdominal lesions.

THE MEDICAL CARE OF THE AGED*

R. R. SNOWDEN, M.D., PITTSBURGH

The successful treatment of the illnesses of the aged does not depend on any specialized knowledge, but only on a conscientious application of ordinary medical skill guided by a realization of the psychologic and physiologic changes that may accompany advancing years. The discussion of this subject, therefore, resolves itself into a plea rather than an exposition—a plea that the physician give careful and intelligent attention to those who, in the twilight of life, seek his professional help. Too often the tendency is to look upon the minor infirmities of old age as inevitable ones which the sufferer should bear in silence and the more acute illnesses as the beginning of the end. Such an attitude on the part of the physician is unjustified and cruel—unjustified because there is much that can be done to relieve minor ailments or to help in a major illness, cruel because the patient quickly senses that little real effort is being made to help him.

Before considering the treatment of illnesses in the aged, let us briefly review those physiologic and metabolic changes peculiar to advancing years and their effects on disease. Perhaps the most universal of these changes is arteriosclerosis. As a result of the thickened capillaries the normal exchange of metabolites is impeded.

Muscular activity is slower, and the onset of fatigue is rapid. The normal reactions to heat and cold are impaired, and resistance to infection is lowered. The cardiovascular system loses its resiliency and reserve powers, and the gastrointestinal tract is sluggish and easily disorganized. Another characteristic change of old age is a diminution of the physiologic processes, especially those dependent on certain glands of internal secretion. The metabolism becomes sluggish, ambitions are dulled, the love of conquest is supplanted by a yearning for peace and security. Courage of the physical type is lost, although often replaced by the higher type of courage based on intellect and philosophy. Finally, there are certain mental and physical changes in old age which the physician must bear in mind. Memory, especially for recent events, may be dulled and the capacity to explore new fields of thought may be impaired. On the other hand psychologic insight is frequently at its best, and an elderly individual who may seem to be almost childish will at the same time be sharply observant and have a keener understanding of those about him than perhaps they have of him.

All of these changes—arterial, glandular, and psychic—combine to influence the manifestations and course of any illness in old age. In the acute conditions the signs and symptoms are often

* Read before the General Meeting of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 3, 1934.

atypical, and the clinical course is difficult to predict. In the chronic and less severe disturbances the symptoms are exaggerated, and minor discomforts may be of major importance.

In light of these facts let us now consider the distinctive features of the treatment of medical conditions in the aged, considering details only to the extent of illustrating certain principles that are especially important.

The acute and serious diseases are best treated by their early recognition, and early recognition depends on their possibility always being borne in mind. A mild chill or an unusual feeling of exhaustion may be the only sign of beginning pneumonia. Dyspnea may be due to an extensive pleural effusion. Several times I have seen diarrhea usher in a fatal septicemia, the portal entry being probably through the irritated intestinal mucosa. Such examples are mentioned only to illustrate the general principle that a fulminating illness may begin insidiously with mild disturbances. Therefore the physician should routinely examine the elderly patient thoroughly when first called and should never make light of apparently trivial complaints.

Once the acute illness is fully under way treatment is basically the same as in the case of any adult, but in addition special mention should be made of 2 points. First, one should never give up hope simply because the patient is advanced in years. Many an older patient has lived to poke fun at the physician or read, perhaps with a pardonable smile, his death notice. Second, particular attention should be given to the comfort of the patient, because pain and distress are peculiarly disturbing to elderly people. General malaise and headaches call for salicylates and phenacetin; vomiting or intestinal irritation should be promptly relieved by bismuth or cerium oxalate; pain must be alleviated by small doses (gr. 1/16) of morphine; loss of sleep, always a serious handicap even in a delirious patient, should be treated with a hypnotic.

Attention to all these phases of treatment is comparatively easy if the physician follows certain routines of procedure. At each visit, after receiving the report of the family or nurse, he should examine the patient thoroughly with a view of locating promptly any new development or minor complication such as ulcerations in the mouth, beginning bed sores, inflamed hemorrhoids, or distended bladder. He should then ask himself the question, "Is the patient comfortable?" Consideration should be given to sleep, position in bed, pain, malaise, dyspnea, racking cough, and all the many conditions that may interfere with rest. The physician who

thus methodically covers the minor as well as the major aspects of the case is prepared to give orders that are intelligent and useful. Certainly a higher percentage of his patients will be cured than will those of the physician who tiptoes into the room, scans the temperature record, glances at the patient, and wags his head over the prospective death of another elderly citizen.

In the treatment of minor illnesses and complaints incident to old age therapeutic success depends on thoroughness of physical examination, attention to seemingly minor symptoms, and an attitude of intelligent optimism.

The discussion of treatment will be under 3 general topics; namely, the use of drugs, the extraordinary benefits of rest, and a plea for attention to the psychologic state of the aged.

The right tendency in the treatment of young or middle-aged individuals is to limit the use of drugs, relying more on other fundamental corrective measures; but in the aged drug therapy can be exceedingly useful, and with experience and judgment can be developed into a fine art. Tonics such as strychnine, arsenic, and phosphorus will often restore a feeling of energy and well-being. The appetite can be stimulated by small doses of whiskey or wine, which may also cause a general sense of mild exhilaration that helps digestion and gives widespread beneficial effects. Sedatives such as bromides, chloral, hyoscyamus, and phenobarbital will relieve mental depression and remove the terrors of long, wakeful nights. Salicylates for rheumatic pains; phenacetin for headache; hydrochloric acid, charcoal, and peppermint for flatulence; mild laxatives such as yeast, or oil and agar, for constipation; iron for anemia—these constitute only a part of the therapeutic armamentarium. Such measures as these must be used intelligently and in particular overdosage must be avoided. Old people may be seen in a state of stupidity as a result of overdosage with sedatives. But the careful and judicious use of drugs will often change the entire clinical picture of old age.

Nothing is so useful to an elderly person as rest. I do not mean confinement to bed, which predisposes to pneumonia, but only to the house in winter or to the porch and the yard in the summer. The ideal routine is to arise at a convenient hour in the morning, eat breakfast alone so that it can be done leisurely, then spend the day sitting in a comfortable chair or reclining on a couch, reading or dozing as the inclination dictates. In some cases a mild sedative will help bring about a state of lazy contentment which is so much desired. If the household consists of busy, talkative, energetic people, the patient

should have a room to which, it is tacitly understood, he can retire and be alone. Too often we fail to realize that to some elderly people an atmosphere of energetic activity becomes increasingly tiring, and yet they often hesitate for one reason or another to seek the peaceful solitude which they crave and need. During these days of rest all contacts with business responsibilities should be severed. The reading should be light and interesting. Visitors should be few or none through the day, although an hour or two in the evening with agreeable friends is often helpful.

Sometimes it requires insight to realize that rest is needed. Appearance may be deceptive. A grandmother, in the home of a son or daughter and with apparently nothing to do, may be tied down by tedious minor duties; or a senior business partner, actually freed from responsibilities, may be dragging himself faithfully down town each day through force of habit to sit in his office and worry more than his younger, active associates. Occasional days or weeks at home will restore vitality to such persons and relieve many vague physical complaints. If prolonged rest is impossible because of unavoidable responsibilities, half days or alternating whole days of rest may solve the difficulty. I have in mind 2 elderly patients, carrying the burdens of business in this time of depression, who have been greatly helped by resting at home every other day. When the schedule was at first proposed they laughed at it, somewhat bitterly, as impossible, but after a few weeks' trial they were ready to concede that the increased vitality, mental acuteness, and courage more than compensated for the time lost from the office.

The physician must not neglect the psychologic state of the aged patient. It is not my purpose to go into the many and varied aspects of the mental reactions of old age, to bring out the importance of a correct attitude on the part of the physician toward the patient—an attitude of consideration and respect, of insight, and a desire to be of real service. The type of patient under discussion is not the psychoneurotic with selfish ego and fixed introspection who has always been a complainer and who never ceased to enjoy poor health; but it is the individual who after years of normal activity, self-sacrifice, disappointments, and achievements, becomes a victim of arteriosclerosis, physiologic disturbances, and all the resulting mental and physical discomforts of age. These patients may be garrulous or cranky; their worries may seem trivial, their complaints unreasonable. But they need help, and deserve help, and yet how often we fail to render it! We listen to complaints of weakness, lack of energy, rheumatism, dyspnea on exertion,

gas after eating, insomnia, or perhaps merely one all-inclusive blanket complaint—sick all over. Do we view the picture of misery across the desk with a feeling of helplessness and wish that he or she would carry the burdens of old age with a little more fortitude? Or do we give the patient time and courteous attention, sort out the complaints into logical groups, make a real examination, and institute treatment designed to correct evident disturbances and alleviate distressing symptoms? Let each one of us place himself on the other side of the consulting table and decide which of these professional attitudes he would seek.

There is nothing more satisfactory in the practice of medicine than to restore these patients to a state of reasonable comfort, physical activity, and mental peace. Success depends on confidence in the ultimate benefits of careful treatment—confidence on the part of the physician based on experience with similar cases, confidence on the part of the patient because he recognizes the fact that he is receiving thorough and intelligent study.

121 University Place.

ABSTRACT OF DISCUSSION

CHARLES FALKOWSKY, JR. (Scranton): Dr. Snowden's conception of the life limit is somewhat similar to mine; he inclines to the physiologic rather than the pathologic. For some time we have been pushing forward the life limit. The curve of life is a curve of evolution rather than involution. People die a purely biologic death which is probably cardiac. Arteriosclerosis covers a great multitude of pathologic conditions which are necessary evils of advancing age. Few individuals ever achieve the full life limit and the so-called biologic death. The senile death usually is cardiac.

Theoretically, the life limit is 100 years; but there are probably few of us who will reach age 70. Only about 4.8 per cent of people attain age 60; 2.4 per cent reach age 80; and with all our improved hygiene and modern disease prevention we have not succeeded in increasing the number of senile over age 90. The life limit has not been extended; I do not think it can be. Life extension work has extended slightly the average longevity; but as far as the total span of life is concerned, I doubt if life extension work can do that because the biological limit as regards age is quite well fixed.

There is no question about the tremendous psychologic side which this class of patients presents. But there is one thing about which I am almost rabid, and that is the steadfast use of barbitol preparations in the treatment of these patients. So frequently we see a case of arteriosclerosis in an elderly patient and find him mentally incompetent. We ask what has been done and find that he is filled with some barbitol preparation. By the simple withdrawal of the drug the mental condition disappears completely in a few days.

We cannot escape old age, we cannot defer it; all we ask as we grow older is that we may be made comfortable.

EDITORIALS

NEW YEAR'S GREETING

The year 1934 will stand out as an epochal year for organized medicine, with the medical profession demonstrating that it can solve its problems satisfactorily. This was made possible by the unprecedented support given the officers of the State Society by the ever loyal membership.

Organization, which is group teamwork, has invaded practically every endeavor and has played an active and prominent part in the economic, social, and governmental development of the nation.

The medical profession, one of the pioneers in the modern program of organized efforts, has for decades realized the value of united and organized activity in advancing the cause of scientific medicine and public health, and in rendering satisfactory medical services to all peoples at all times and under all circumstances. Thus it has fulfilled its mission.

The membership may be justly proud of the accomplishments and achievements of the State Society during the past 12 months.

Nineteen hundred and thirty-five lies before us. There is much to be anticipated and much to be accomplished.

Teamwork under continued efficient leadership will enable organized medicine to finish the year with a splendid record of substantial and tangible achievements.

Happy New Year!

DEDICATORY EXERCISES OF HEADQUARTERS AND LIBRARY BUILDING

It was a very happy occasion and an epoch in the history of The Medical Society of the State of Pennsylvania, a dream that came true, when on Tuesday, December 11, at 3:30 p. m., the new headquarters and library building at 230 State Street, Harrisburg, were dedicated.

Dr. Edgar S. Buyers, chairman of the Board of Trustees, presided. Dr. Buyers, in behalf of the Board of Trustees and of the membership of 8000 physicians, expressed the thanks and appreciation to the Building Improvements Committee of the Board of Trustees for the very efficient services rendered. The committee spent many hours in Harrisburg during the erection of the structure. The committee appointed in 1933 consists of Drs. Augustus S. Kech, Altoona, *chairman*; Frederick J. Bishop, Scranton; and Clarence R. Phillips, Harrisburg.

The invocation was given by Rev. Wilbur V. Mallalieu, pastor, Grace Methodist Church, Harrisburg.

The presentation of keys was made by Mr. Edwin Green, representing the architects, Lawrie and Green, Harrisburg.

Dr. Kech upon receiving the keys and in presenting the building stated that in 1923 the Board of Trustees purchased the property with a view to the erection of this building at some future time. At the time of purchase the building was a three-story brick structure which was remodeled to accommodate the offices in front and the apartments above. The foresight and judgment of the Board of Trustees at that time is best expressed by the fact that during the 12 years of ownership all work on the building including taxes has been paid for, the Society has had offices rent free, and \$3118.92 has been turned over to the building fund.

The economic changes of the times make it necessary for the officers and members of the State Society to serve as never before. They are called upon by governmental, private, and semiprivate agencies, and the new building and the library facilities will afford the opportunity to serve the State and also give inspiration to every county society.

The front of the building is of Indiana limestone, ornamented by various medical symbols. The shrubbery has been arranged to augment its beauty. The main offices are in front and the apartments above. The Board of Trustees' room is in the rear of the first floor, and in front of it are 2 small committee rooms. In the basement are a fire- and theft-proof vault to house archives of the State Society, and the library. It is not the purpose of the Trustees to accumulate vast numbers of valueless volumes, but to assemble for the service of the members of the State Society, addresses, papers, and material delivered at meetings throughout the State. This is patterned after the plans of the American Medical Association, and Pennsylvania is the fourth State in the Union to have such a building. It should be of marked value to the members.

This building of steel and stone is dedicated to the members of the State Society who are devoting their lives to the healing of the sick in Pennsylvania.

In accepting the building President Moses Behrend said that here will gather men to study,

learn, and interpret, if necessary, those rights which belong to all physicians.

In the unavoidable absence of Dr. James N. Rule, superintendent of the Department of Public Instruction, greetings were extended in behalf of that department by Mr. William M. Denison, deputy superintendent of Public Instruction, who said in part: The afternoon's program quotes from Sir William Osler a statement to the effect that "the promotion and dissemination of medical knowledge throughout the State remains our important function." Fundamental to this pronouncement are 2 functions of the State Department of Public Instruction.

First, if medical knowledge is to be promoted and disseminated, it is essential that the constituency of the medical profession, as a whole, be composed of educated citizens. The State of Pennsylvania by constitutional pronouncement has provided for this; thus public education is definitely established in this State as a state function to the end that illiteracy may be banished and an educational background established which shall enable our people to evaluate intelligently the problems which confront them and to perform in a commendable manner their duties as citizens of the great Commonwealth.

The education of a people may be the outcome of a formal educational program maintained and encouraged by the state or it may be developed and enhanced by other agencies and one of the chief of these is the public library or private libraries available to the public. Without question, the library which we are dedicating this afternoon established by The Medical Society of the State of Pennsylvania will have a far-reaching effect not only in the education of the people at large but more particularly in the dissemination of medical knowledge within the medical profession itself. Public education, therefore, makes a distinct contribution to the profession by aiding in the abolishment of popular superstitions which for ages dominated human action and by developing an educational background among the people at large which will enable them to appreciate and to benefit by the services rendered by the medical profession.

Secondly, if medical knowledge is to be disseminated throughout the State by a group designated as the medical profession, the people must be guaranteed, as far as possible, by the State that those who will disseminate this knowledge are professionally and personally prepared to do so. The Department of Public Instruction through the State Board of Medical Education and Licensure as an administrative board of the Department guarantees to the people of this State that those who shall minister to the sick

and the suffering shall be adequately trained and properly equipped to render this service. There are approximately 13,000 persons licensed by the Department of Public Instruction as legally and professionally qualified to render medical service to those in need of such assistance.

Greetings were extended by Dr. Arthur W. Booth, Elmira, N. Y., representing the Board of Trustees of the American Medical Association who said that Pennsylvania is looked upon as the cradle of liberty and medical education. The hospitals in Pennsylvania were the earliest civic movements. No other state sponsors so many splendid institutions in remote districts, such as the one recently rededicated at Sayre. Your pioneering goes on in the medical postgraduate work started within the last few years so that professional men from your centers of research work can bring to country physicians knowledge that they need and are unable to return to their schools to procure. You are now pioneering again in erecting this building.

All these things in Pennsylvania seem a most adequate challenge to those calling for state medicine. No one could look upon such a group of men as are gathered here and say that 75 per cent of the people in Pennsylvania are receiving no medical attention today. No one could believe that the poor are being neglected. As a representative of the American Medical Association, Board of Trustees, he said, unofficially however, that he is not so much worried as a few months ago. Some of our opponents are beginning to see the light. We can breathe much easier on the topic of health insurance. There may have to be some change. But if you will bear with and have patience with the officers of the American Medical Association and with your own officers, we can accomplish something.

In extending greetings from the Commonwealth, Governor Pinchot expressed his delight in being able to make possible the work of the State Society in 52 counties throughout the State in Emergency Child Health work; but he wanted to say a few words from a different point of view. In a very real sense he wanted to acclaim the entrance of the State Society into politics; there are few things in his present term which have meant so much to him as the Medical Society taking a hand in the civic affairs of the Commonwealth.

We cannot have a happy state nor build up a well people without the conservation of the health of the people.

It is fitting that this building should center the interest of your Society in Harrisburg where the laws of our Commonwealth are made. Nothing is more necessary than that a body of men

such as this should take part in the making of the laws that will see to it that the health of the people is maintained.

In extending greetings Dr. Theodore B. Appel, State Secretary of Health, said the State Department of Health is second to no other in close relationship to The Medical Society of the State of Pennsylvania. Their work cannot be done without the whole-hearted coöperation of the Medical Society.

Reference has been made to the Emergency Child Health work. He called attention to another phase of the work in the State—the Emergency Relief Board on Medical Care under the direction of Dr. Harold Miller. Within the last 2 years the State Government definitely has recognized organized medicine by asking advice in large governmental work which means we have gained in power and influence.

It was back in the days of the late Dr. John B. Roberts that the necessity for a permanent home became apparent. The first step was the purchase of a building which was not satisfactory but with the thought of one day having such a home as this.

Dr. Edward B. Heckel, Pittsburgh, a former president of the State Society, extended felicitations.

A portrait of the late Dr. Cyrus Lee Stevens was unveiled by Dr. Stanley D. Conklin, representing the Bradford County Medical Society, who said in part: Anyone at all familiar with The Medical Society of the State of Pennsylvania knows of Cyrus Lee Stevens' long term of faithful service. He typified the doctor of the old school. His work in the various offices which he held in organized medicine of the State stands out preëminently as a milestone for the younger members of the profession.

Cyrus Lee Stevens was born at Stevensville, Pennsylvania, March 10, 1851. He was graduated at Lafayette College in 1876, with the degree of A.B., receiving the degree of M.A. from that institution in 1880. From 1876 to 1878 he was tutor in Natural Science at Parsons College, Fairfield, Iowa. He was graduated at the College of Physicians and Surgeons, Keokuk, Iowa, in 1880. This same year he received an appointment to the Central Turkey Mission as missionary physician, and was made professor of surgery and medicine in the Medical Department of Central Turkey College at Aintab, Turkey-in-Asia, where he remained 3 years. Returning to New York he served as superintendent of the New York Postgraduate Medical School and Hospital during 1884-85. Since the latter year he was in general practice at Athens, Pennsylvania.

Dr. Stevens was secretary of The Medical Society of the State of Pennsylvania from 1897 to 1918, and its president in 1919, also serving the Society as a member of its Board of Trustees and chairman of the Committee on Increase of Membership and Extension of Polyclinic Teaching; for 3 years was a member of the Reference Committee on Amendments to the Constitution and By-Laws, and chairman of the Reference Committee on Credentials for one year. He was also a member of the American Association for the Advancement of Science.

He was one of the founders of the PENNSYLVANIA MEDICAL JOURNAL and its editor from 1904 to 1920, and by his unselfish devotion to the work he was largely instrumental in placing it among the high class of medical publications of the United States.

He was admitted as a member of the Bradford County Medical Society in 1885, was president for the year 1890-1, and served as its faithful secretary for the year 1888-9, and from 1909 to the time of his death in 1923.

The members of Bradford County Medical Society welcome the opportunity of giving this portrait of Dr. Stevens, whom they loved, honored, and revered, to the State Medical Society for its new building.

Physicians visiting Harrisburg are urged to inspect the new headquarters and library building.

THE EARLY SIGNS AND SYMPTOMS OF CANCER

Attention of our members! During the first week in January there was mailed to all practitioners in Pennsylvania outside of Philadelphia a pamphlet entitled "The Early Signs and Symptoms of Cancer." This pamphlet was prepared by the Committee on Cancer Control of the Philadelphia County Medical Society and had already been distributed to the practitioners in Philadelphia.

Through the activities of the Commission on Cancer Control of our State Society this pamphlet has been sent to all members in Pennsylvania outside of Philadelphia with the following objects in view.

1. To furnish to the physician a summary of the available knowledge regarding the most important features of cancer, because if cancer is recognized in its *early stage* and thoroughly and skillfully treated, the majority of these patients should get well; and in the more superficial group, such as the skin and lip, nearly all should get well.

2. To have at hand a convenient abstract for

reference and as a reminder, so that no patient will lose the best chances for life.

3. To enlist the coöperation of every practitioner of medicine in a real effort to reduce the deaths from cancer by curing the early cancer or the precancerous conditions.

4. To remind all physicians that a thorough physical examination on the patient's birthday, or better each six months, will enable him to recognize many early cancers or precancerous conditions that are now being neglected by the patient.

It is hoped that our readers opened the envelope containing this particular information and did not throw it in the waste paper basket unopened. There was placed at the upper left-hand corner of the envelope printed notice to the effect that the envelope was from the Medical Society of the State of Pennsylvania. As further mail will be received by the membership so designated, we trust that all members will be on the lookout for all mail marked as coming from the State Society.

BUYING HEALTH

While the country looks forward to the recommendations of President Roosevelt's Committee on Economic Security, with its national advisory council and collaborating committee of physicians, *Survey Graphic* brings out a special December number, "Buying Health," which gathers together for the first time formulations of policy that have appeared in the last 6 months from one professional body after another. They are impressive evidence of the mounting interest and conflict in group medicine and health insurance. Last summer statements of policy came in rapid succession from the American College of Surgeons (June 10); American Medical Association (June 12); The Committee on Economics, Canadian Medical Association (June 22); American Dental Association (August 9).

President Roosevelt's message in June made security of health an issue of national policy. *Survey Graphic* discloses how by fall it had become an issue in politics. It cites a preëlection editorial entitled, "The Doctor and the Legislator" in the *Journal of the American Medical Association*, which warned its readers to scrutinize carefully the view of the legislators they intended to support at the polls and to keep them steadily informed of their "feelings." At the same time a bulletin signed by the secretary of the Association, Dr. Olin West, went out to secretaries of the State and territorial medical associations and editors of state medical journals, declaring, "Since the American Medical

Association and many of its constituent medical associations have gone on record in opposition to sickness insurance, it is extremely desirable that the views of the organized medical profession should be made known to members of Congress and to candidates for reelection."

Lengths to which "feeling" runs is shown by an editorial exhortation of *The Journal of the Indiana State Medical Association*:

"Let us inquiringly search out the legislative mesquite and the administrative underbrush and unmistakably brand with blackball votes this coming fall those mavericks whom we have reason to suspect of long-haired theories and pop-eyed reforms as regards goose-stepping the medical profession. Politely, yet firmly insistent, let us present the wool gatherers with one-way tickets to their farms and forges and ribbon counters and trash-littered desks and dust-covered law books."

In contrast the *New England Journal of Medicine* declared editorially:

"... The strange feature of the situation is that doctors have seemed to be willing to wait for others to put into operation regulations governing medical practice, in the face of the history of other countries."

For lay opinion, a sharp newspaper editorial is quoted. "Shall we plow under every third hospital bed?" asked *The Philadelphia Record* when the American Hospital Association met in that city and listened to reports of private institutions half empty because of the financial inability of people to make use of them. "Such an editorial is one of many straws in a strong wind that is blowing in the direction of practical action," writes Mary Ross, editor of the special number, who goes on, "Perhaps in the spirit of the times one might add—Shall we colonize our half-employed doctors and nurses in Alaska or set them up on subsistence homesteads?"

"What we spent in 1929 for the scanty service," Miss Ross points out, "was very nearly enough to have provided adequate care for every one who needed it with an adequate return to the professions who typically, even then, were so badly paid. A social solution of our insecurity in sickness costs is a far simpler matter than the solution of many of the other great insecurities with which we are faced, for it means in general a redistribution of the expenditures to which we are accustomed rather than the assumption of new costs."

Recent developments are listed in the field of practical action opened up by the 5 years' study (1927-1932) of the Committee on the Costs of Medical Care, under the chairmanship of Dr. Ray Lyman Wilbur, member of the Hoover Cabinet and president of Leland Stanford University. Voluntary arrangements for group insurance against hospital costs have grown by leaps and bounds during the past year. In some

parts of the country similar voluntary plans for physicians' services also have made a thriving start. The report of the Committee on the Grading of Nursing Schools brought recommendations for greater organization of that profession's services. Within a few weeks a legislative commission in California will bring in a report on state health insurance. Dr. Wilbur is quoted:

"Does it make any real difference to the doctor whether his payments come from collective savings rather than from the pocket of a patient who has usually through illness lost his earning power? I have hopes that a consistent and intelligent discussion of the health insurance problem here in California will lead to its trial....."

In Michigan, the State Medical Society has pioneered in formulating a state-wide plan described by the Society's former secretary, Dr. Frederick C. Warnshuis.

Voluntary use of the insurance principle *Survey Graphic* points out is the basis of the plan of the Michigan State Medical Society and of programs approved in principle or practice or both by a growing number of other state medical societies. It is the basis of the principles laid down by the American College of Surgeons last June and is consistent with the principles adopted in August by the House of Delegates of the American Dental Association.

Compulsory health insurance, rather than voluntary, is the basis of the plan before the Canadian Medical Association, as well as reports offered by lay groups in this country, including the American Association for Social Security and the technical staff of the Milbank Memorial Fund. The proponents of compulsory health insurance point to experience abroad and under our own use of workmen's compensation measures as an indication of the greater economy and effectiveness of a compulsory system, from the viewpoint of the community, the employers, and the insured. A study by the staff of the Milbank Memorial Fund indicates that a comprehensive and adequate compulsory service, including the services of general practitioner, specialist, nurse, general and special hospital, drugs, basic dentistry, laboratory, and so on could be obtained at a cost of about \$27 a year if the entire population were insured and for less if all but the well-to-do are covered. That \$27 is little more than the average of \$24 a year that Americans have been accustomed to pay privately for such services, though all classes, and especially the lower income groups, receive inadequate amounts of care.

Analysis of these sets of recommendations leads the *Survey Graphic* to underscore that each

maintains so far as professional service is concerned the personal relationship between doctor and patient which the American Medical Association so often has emphasized. "Compulsory" or "voluntary" in respect to any of these proposals applies merely to payment; there is no measure in any of them to require physicians to work under the plan, to limit the patient's choice of a physician or the physician's acceptance of a patient. All insisted on professional direction of professional services and on the exclusion of commercial intermediaries.

In an article on "Medicine's Right to Control," William Trufant Foster, director of the Pollak Foundation for Economic Research, declares:

"Nobody proposes to turn over medical services to the control of politicians. Nobody contends that a board of aldermen should decide when to operate for appendicitis. Nobody wishes to disturb, in the slightest degree, those precious personal relations between the individual patient and the individual practitioner. Doctors' bills, however, are not among those precious personal relations; and they are not medical services.....If by the 'right to control its own affairs' the organized profession means the right to decide how consumers of medical services shall pay for those services, the profession is demanding a kind of control which is granted to no other profession."

Other contributions from laymen and professionals are "The Public's Impatience" by Lee M. Merriman, city editor of the *Pasadena (Calif.) Post*; "The Old Family Doctor—and the New," by Nathan B. Van Eppen, M.D. (New York City), vice-speaker of the House of Delegates of the American Medical Association; "We Believe in Group Medicine," by Dr. Rexwald Brown, surgeon of Santa Barbara, founder of a clinic for group medicine in that city, and one of the medical advisors of the President's Committee on Economic Security; "The Challenge of Socialized Medicine," by Dr. Joseph Slavitt (New York), chairman of The Medical League for Socialized Medicine; "What of Dentistry?" by Bissell B. Palmer, D.D.S., president in 1934 of the American College of Dentists; "I Speak As a Nurse," by Elizabeth C. Burgess, past president of the National League of Nursing Education; "Half-Empty Hospitals," by Dr. N. W. Faxon, director of the Strong Memorial Hospital in Rochester, N. Y., and 1934 president of the American Hospital Association; "How I Got That Way: An Employer's Viewpoint," by Edward A. Filene, president of William Filene's Sons Company in Boston and founder and president of the Twentieth Century Fund; "Can Health Be Bought?" by C.-E. A. Winslow, professor of public health at the Yale School of Medicine, and chairman of the Committee on Administrative Practice of the Ameri-

can Public Health Association; "We Learn from Workmen's Compensation," by Dr. R. G. Leland, director of the Bureau of Medical Economics of the American Medical Association; "How Europeans Pay Sickness Bills," by Michael M. Davis, director for medical services of the Julius Rosenwald Fund, Chicago.

The symposium closes with an article by Frances Perkins, Secretary of Labor and chairman of the President's Committee on Economic Security. (Released by *Survey Graphic*.)

PRESIDENT ROOSEVELT'S COMMITTEE ON ECONOMIC SECURITY

Some features of the report to be brought by President Roosevelt's Committee on Economic Security are forecast by its chairman, Frances Perkins, Secretary of Labor, in discussing the committee's task in an authoritative article in the December issue of *Survey Graphic*.

Of unemployment insurance, Miss Perkins says: "I have little doubt that our Committee will recommend the enactment of a national unemployment-insurance law, which, however, as the President indicated in his message in June, will require coöperation by the states. I believe that the coming winter offers the best opportunity we are likely to have for a generation to gain unemployment insurance in this country."

Of old-age pensions: "Twenty-eight states now have some system of old-age pensions and the coverage is being constantly extended to a larger group. There are, however, several obvious defects in the present schemes. Residence requirements are high; the age at which persons become eligible, usually 70, is too late; and the system of local administration is open to serious criticism. The chief objection, however, is that financial provisions are usually meager. . . . Some form of government subsidy, granted on the acceptance of standard requirements, is obviously indicated."

Of sickness insurance: "Medical care for a large segment of our population has been both inadequate and an unfair burden on the medical profession which alone of all professions has been expected to render free service to the poor. . . . Compulsory health insurance has been accepted abroad by both physicians and lay persons as a great public benefaction. . . . The possibilities of some advance-payment plan for medical and hospital care, developed along lines adapted to our American conditions, are being studied for our committee."

Of mothers' pensions: "With 7 million children under age 16 on relief rolls, the necessity of providing for security for this group of future citizens is obvious, both through a comprehensive health program and by an amplification of the mothers' pension laws."

Of relief and public works: "More important than all social insurance devices together is employment. . . . There are many people who cannot be brought under an unemployment-insurance system and even the insured worker, especially during periods of depression, may exhaust his right to benefits. Other countries with long-established insurance systems have found it necessary to supplement insurance benefits through public-

assistance grants and public-works projects. . . . Our report certainly will include recommendations on employment and it is to be hoped that legislation may result from them this winter."

In conclusion, Miss Perkins writes: "I believe that actually the voice of opposition will be drowned by the wave of enthusiasm for social insurance which is sweeping the country. It is growing so rapidly that our concern must be rather to avoid being swept into hasty or ill-considered action. With a well-conceived program carefully thought through, we can move with confidence, slowly but surely, on that way of security to which we are committed." (Released by *Survey Graphic*.)

JOHN MONTGOMERY BALDY, M.D.

Dr. John Montgomery Baldy died suddenly of a self-inflicted gunshot wound December 12, 1934, at his home in Devon, aged 74.

The tragic death of Dr. Baldy removes a noted figure from the medical profession, particularly in relation to his activities over many years. Dr. Baldy had been ill from a nervous breakdown and had become despondent. He was born in Danville, Pa., June 16, 1860, a son of Edward Hurley and Henrietta Cooper Montgomery Baldy; received his preliminary education at St. Paul's School, Concord, N. H., and was graduated from the University of Pennsylvania School of Medicine in 1884. He began practice in Scranton, Pa., and after several years came to Philadelphia. He was one of the pioneers in gynecologic surgery, having founded the Gynecean Hospital, Philadelphia, in association with the late Dr. Charles B. Penrose. Those were the days of marine sponges and the gloveless hand.

In 1891 he was appointed professor of gynecology at the old Polyclinic Hospital. He served as consulting gynecologist to the St. Agnes Hospital, the Pennsylvania Hospital, the Jewish Hospital, and the Frederick Douglas Memorial Hospital.

For a number of years he was very active in his county and State societies and the American Medical Association, a member of the American Gynecological Society (past president), the Obstetrical Society of Philadelphia (past president), and a member of many other professional and social organizations. In 1898 he was American delegate to the International Medical Conference held in Amsterdam.

In 1912 he was appointed a member of the Pennsylvania State Board of Medical Education and Licensure, immediately elected its president and continued in this capacity until his resignation in 1921. To his administrative acumen can be attributed the very high standards maintained by this Board which placed Pennsylvania

in the forerank of medical licensure. He was the factor in a great measure in obtaining legislation enhancing the value of the Board and having as a requirement for licensure an internship. In his administration of the State Board he was known throughout the country as an ardent, fearless administrator and did much to show the integrity of the Pennsylvania Board in the field of medical licensure.

In August, 1921, Governor William C. Sproul appointed him Commissioner of Welfare with the power to organize the newly created department. It supplanted the old Board of Public Charities and allied bodies including the Lunacy Commission, the Prison Board, and the Mothers' Assistance Fund. Dr. Baldy served as Commissioner of Welfare until January, 1923, when the first Pinchot administration began, at which time he was succeeded by Dr. Ellen C. Potter, whom Dr. Baldy himself had brought into the department as chief of the Children's Bureau.

Through his work as head of the Board of Medical Education and Licensure and Commissioner of Welfare, Dr. Baldy did much to raise the standards of medical practice, to improve the hospital system of the State, and to broaden the work of penal and charitable institutions.

Several years ago he was appointed medical director of the Philadelphia Municipal Court and occupied that position at the time of his death.

He was an extensive contributor to the medical literature, many of the articles being original and important, covering every phase of his specialty. He was the editor of *An American Text-book of Gynecology* which appeared in 1894.

Dr. Baldy was a most lovable character, militant and fearless in debate, and indefatigable in the devotion to details of any task which he assumed. Recognition of his ability, industry, and knowledge was general. His medical and civic attainments are no measure of the respect and warm affection in which he was held by the members of his profession. Those who knew him were aware also of his good companionship, of his high standards of sportsmanship, of his fine artistic feeling and execution, and of his broad learning. The only lesson he never learned was the conservation of his own great energy.

Dr. Baldy was married twice. His second wife, the former Miss Helen M. Constein, of Ashland, Pa., whom he married in 1919, survives.

EDWARD BALDWIN GLEASON, M.D.

Dr. Edward Baldwin Gleason, of Philadelphia, died at his home from heart disease November 30, 1934, aged 80. Dr. Gleason was born in

Philadelphia, October 13, 1854, a son of Dr. and Mrs. Cloyes W. Gleason. He was graduated from the University of Pennsylvania with the degree of Bachelor of Science in 1875 and from the University of Pennsylvania School of Medicine in 1878, being the third generation of his family to graduate from this medical school, his maternal grandfather having graduated in 1807 and his father in 1844. He was a direct descendant of Thomas Gleason who left Northampton, England, to join members in the Massachusetts Bay Colony in 1636; also of a Captain Samuel Gleason who as ensign and captain of Nixon's Minute Men fought in the battle of Bunker Hill. His maternal grandfather, Dr. William Baldwin, was a distinguished botanist and surgeon in the United States Navy.

Dr. Gleason was active in the civic affairs of Philadelphia for a number of years, having served in the old Common Council and at one time was its president. In 1894 he was elected professor of otology in the Medical Department of the Medico-Chirurgical College of Philadelphia; and professor of oral surgery in the Dental Department of the same institution in 1909. He continued the former professorship until the institution was merged with the University of Pennsylvania when he was elected professor of otology in the Graduate School of the University of Pennsylvania. In 1899 the degree of M.D. was conferred upon him by the Medico-Chirurgical College. The honorary degree of LL.D. was conferred upon him by Villa Nova College in 1905. He was former laryngologist to the Philadelphia General Hospital, surgeon-in-charge of the nose, throat, and ear department of the Northern Dispensary, and on the surgical staff of the Seaside Sanatorium for Children.

He was a member of his county and State societies and a Fellow of the American Medical Association; Fellow of the American Academy of Medicine; member of the American Academy of Ophthalmology and Oto-Laryngology; Philadelphia Laryngological Association (former president); Pennsylvania Society Order Founders and Patriots of America.

In 1887 Dr. Gleason was married to Miss Marion E. Currie of Ashaway, R. I., who with their daughter, Miss Helen Baldwin Gleason, survive.

Dr. Gleason was the author of *The Essentials of Diseases of the Nose and Throat*, 1901; *The Essentials of Diseases of the Ear*, 1902; and *Diseases of the Nose, Throat and Ear*, 1907.

Dr. Gleason was a gentleman, physician, teacher, civic leader, and writer, and to the end led a busy and useful life, devoting much time and labor on behalf of civic affairs. He did much

for his fellow men through his hard and successful work in the clinics for so many years, as well as the devoted care and tactful sympathy he bestowed upon his private patients. He wrote in a clear, logical, and scholarly style, contributing many articles to the medical literature in addition to his textbooks.

NEW STATE SECRETARIES OF HEALTH AND WELFARE

Governor George H. Earle has appointed as members of his cabinet Dr. Edith MacBride-Dexter, of Sharon, Mercer County, Secretary of Health, and Dr. J. Evans Scheehle of Llanerch, Delaware County, Secretary of Welfare.

Dr. Dexter succeeds Dr. Theodore B. Appel of Lancaster, who served 2 consecutive terms as Secretary of Health, having been appointed 8 years ago by Governor John Fisher and reappointed by Governor Gifford Pinchot.

Dr. Dexter is the first woman in the history of the Health Department of the State of Pennsylvania to be appointed head of that department, and will be the only woman to sit in the Governor's official family.

Dr. Dexter was graduated from the Woman's Medical College of Pennsylvania in 1910 and devotes her practice exclusively to ophthalmology. She is a member of her county and State medical societies and a Fellow of the American Medical Association. She served for some time as secretary of the Mercer County Medical Society and has been very active in the affairs of the State Society, for several years having served in its House of Delegates.

Dr. Dexter is the only woman chairman of a Democratic Committee in Pennsylvania, being chairman of the Mercer County Democratic Association. For some time she has been prominent in civic activities in her home county and in other sections of the State. Last spring she was appointed chairman of her county committee to lead its 1934 campaign, having served as vice-chairman in 1928.

Dr. Dexter was born in Grove City, Pa., where she received her early education, having graduated from Grove City College in 1906, and served as its attending physician from 1912 to 1916. She is the daughter of Robert and Ellen Bigler MacBride, and is a descendant of William and John Bigler.

Upon graduation from medical school Dr. Dexter became the first resident physician at St. Vincent's Hospital in Erie. She pursued postgraduate work in the New York Eye and Ear Infirmary, returning to Erie in 1917, and in 1919 returned to her home in Sharon where she has since been in active practice. In 1925 she attended the International Convention of Ophthalmologists in London and in 1927 spent a year doing postgraduate work in ophthalmology in Vienna and London.

Her husband is Allen I. Dexter, engineer for the National Malleable Steel Company. They have no children.

Dr. J. Evans Scheehle has been a warm personal friend for many years of Governor Earle. The Governor decided to name a man Secretary of Welfare because the penal institutions of the State are under his direction; Dr. Scheehle succeeds Mrs. Alice Livright. Dr. Scheehle at the time of his appointment was Republican Coroner of Delaware County, having

been first appointed by Governor Fisher and in 1929 elected to a full term.

Dr. Scheehle was born in Philadelphia, is a graduate of the Central High School, and was graduated from the Medico-Chirurgical College of Philadelphia in 1906, serving an internship at the State Hospital, Fountain Springs, Schuylkill County, Pa. He began practice in Philadelphia and was one of the earliest school medical inspectors. He is a member of his county and State medical societies and a Fellow of the American Medical Association.

During his term of office as Coroner of Delaware County he rendered most efficient service and did much to help place the office of Coroner in the State of Pennsylvania on a much higher plane. For several years Dr. Scheehle was lecturer on materia medica and therapeutics in the Temple University Medical School.

The Governor and Dr. Scheehle served together in the Navy during the World War. Immediately after the United States entered the war Governor Earle and Dr. Scheehle were in almost constant contact, the former being the head of a recruiting station and the latter examining surgeon. Dr. Scheehle saw active service on the U. S. S. *Anniston* in convoy work, the ship being on convoy duty in the Azores and Mediterranean Sea. At the time the Armistice was signed he was at sea on convoy detail as medical officer.

Dr. Scheehle will be the first man to direct the affairs of the Department of Health since the organization of this department, at which time the department was organized by the late Dr. John Montgomery Baldy, who served as the first Secretary of Welfare. Dr. Scheehle is one of the leaders of the laudable welfare activities of the American Legion. He is past commander of the Nunan-Slook Post, of Haverford Township; Welfare Chairman of the Department of Pennsylvania, American Legion; and member of Delaware County Voiture, No. 518, of the 40 and 8.

Dr. Scheehle is married and has a daughter.

We extend best wishes to these new incumbents for successful administrations.

ORGANIZATION FOR STATE-WIDE SURVEY OF MATERNAL WELFARE

Each component county society is requested to appoint 3 members to a local Committee on Maternal Welfare, whose chairman will automatically become a member of the Councilor District Committee on Maternal Welfare, whose chairman will be the member of the State Society's Commission from that district.

The above set-up should be considered as an obligation of each county society for a complete survey of the problem, which is to be observed throughout the State.

Each county society committee will be directly responsible for the survey in its own county, and no county must fall down in this duty.

Philadelphia County has shown the way to the State and Allegheny County is caring for its problem. The adjoining states of New Jersey and Ohio are away ahead of Pennsylvania in a proper appraisal of this problem. We must protect the profession, and we must not fail in our duty to the trusting public.

The completeness of this survey will depend entirely on the willingness of all physicians (whether in the urban or rural districts, whether they are obstetricians or general practitioners) to cooperate with the commission's efforts, which are being expended unstintingly.

Full confidence must be placed in the commission if results are to accrue. No attempt is being made, nor will it, to arrive at anything but a proper realization of the truth of maternal mortality as it exists in our midst.

Will each society county secretary please forward the personnel of this committee to the state chairman, Dr. James S. Taylor, Penn Central Building, Altoona, Pa.?

THE COMMISSION ON MATERNAL WELFARE,
THE MEDICAL SOCIETY OF THE STATE OF
PENNSYLVANIA.

COMMENTS AND EXCERPTS

Science and Research

Widespread use of 2 dangerous drugs—one which destroys the liver and the other which kills the white corpuscles of the blood—recently brought a warning from the Federal Food and Drug Administration. These drugs are cinchophen and amidopyrine. Cinchophen, a chemical anodyne and sedative, is sometimes used by sufferers from neuralgia, rheumatic pains, neuritis, and similar conditions. Amidopyrine is frequently found in headache remedies and other pain killers.

Current medical literature contains many reports which clearly indicate that these drugs are dangerous to health and life. The gradual development of serious poisoning from the use of these drugs is often so insidious that the danger is not recognized by the user. Cinchophen causes a degeneration of the liver cells. Amidopyrine may cause a reduction in the number of white blood cells or agranulocytosis.

In issuing the warning, the Chief of the Federal Food and Drug Administration made it plain that he was not implying that all headache and rheumatism remedies contained these dangerous drugs. But the fact that some of them do is sufficient reason for the public to be careful. Several manufacturers declare on their labels the presence of these drugs in their medicines, but others do not. There is no provision in the Food and Drugs Act to compel manufacturers to declare either of these drugs.

The Federal Food and Drugs Act requires manufacturers to declare upon the labels of their products the presence of several narcotic drugs. When the law was passed cinchophen was unknown and the dangerous effects of amidopyrine had not been recognized. For these reasons these drugs were not included in the list.

Under present conditions buyers should observe two precautions, according to Mr. Campbell. "First, read the label and look for statements of the presence of these drugs. If they are not declared and there is any doubt ask the druggist or write to the Food and Drug Administration in Washington and ask for the facts."—*Am. Jour. Pharm.*, Nov., 1934.

Only one kind of streptococcus germ, known as Group-A strain of hemolytic streptococci, is capable of causing definite infection in childbirth, Rebecca C. Lancefield of the Hospital of the Rockefeller Institute, New York, and Ronald Hare of Queen Charlotte's Hospital, London, reported to the Society of American Bacteriologists. If this kind of streptococcus is present in the birth canal, the mother is almost sure to develop infection, which is a serious threat to her life. Other kinds of hemolytic streptococci, however, may be present without causing disease.

Over 100 patients at Queen Charlotte's Hospital were examined for the presence of the different strains of streptococci at the time of childbirth. All strains ob-

tained from patients definitely sick with puerperal fever belonged to Group A, whereas only one Group-A strain was obtained from patients who did not have fever. All other strains of streptococcus germs from the mothers not having fever belonged to groups other than Group A.—*Science News Letter*, Jan. 5, 1935.

According to *Science News Letter*, scientists have produced a new derivative of morphine in the course of experiments directed toward the discovery of a non-addicting form of morphine.

Dihydrodesoxymorphine-D is the name of the new drug. It was made by Dr. Lyndon F. Small, University of Virginia research chemist. It is 10 times as effective as morphine in relieving pain.

Given as a substitute for morphine to persons addicted to the latter drug, the new product satisfied the cravings of the addicts and relieved the painful abstinence symptoms that follow withdrawal of morphine. This indicated that it also might be habit-forming.

Tests with monkeys and other animals indicate that these animals develop tolerance to the new drug as they do to morphine. It is not certain, however, that experiments on monkeys are a correct index of the new drug's addiction or habit-forming property for man.

The final test of this point is now about to be made. A group of patients suffering from severe cancer and advanced tuberculosis will soon be given the new drug instead of morphine to relieve their suffering. If they fail to develop addiction to the new drug, dihydrodesoxymorphine-D may be used as a safe substitute for morphine and possibly as an aid in the prevention of narcotic drug addiction. If it can be used in the case of persons already addicted to narcotic drugs, it might aid in their "cure."

Since Dr. Small can produce only a limited amount of the new morphine in his laboratory, he has patented his discovery and given the patent rights to the Secretary of the Treasury. The Commissioner of Narcotics is now able to license manufacturing firms to produce enough of the new drug to complete the clinical trials.

Cancer Cure Vendor Escapes Prosecution: Dies with Cancer

Charles W. Mixer, self-styled cancer specialist of Hastings, Mich., is dead of cancer on the eve of his prosecution on charges of violating the Federal Food and Drugs Act. His principal medicine, Mixer's Cancer and Scrofula Syrup, composed of potassium iodide, senna, licorice, yellow dock root, sarsaparilla, wintergreen, glycerine, alcohol, and sugar syrup, evaded the Federal Law until food and drug inspectors intercepted a shipment to Chicago in July, 1932, and based the recent case on it.

Reputable physicians are unanimously of the opinion that there is no medicinal cure for cancer. The manufacturer employed a physician to care for his own cancer. By correspondence he "diagnosed" his unseen patients, frequently without even a statement from them of their condition or symptoms. When they finally ordered some of his preparations, he sent them something else selling for slightly less, carefully explaining that his experience had shown it would be better to take this other medicine until the system became accustomed to the treatment. This procedure left a so-called credit which was not enough for additional treatment, but which Mixer used as an inducement to the patient to purchase more on the payment of a little more money. In this manner he dealt mostly with poverty-stricken people.

In his lengthy correspondence with each patient there usually occurred periods when the spirits of the patient rose above the gloom and discouragement ordinarily filling the letters. Mixer used these cheerful and optimistic letters as testimonials of the worth of his remedies and carefully suppressed the others.

MEDICAL ECONOMICS

Medical Services in Isolated Communities.—

The proponents of socialized medicine try at times to justify the complete communization of medicine by the conditions which exist in sparsely settled isolated communities.

There are sparsely settled communities without adequate medical service. In these same communities there are no facilities for communication, for education, or for religious services. The facts are that as communities they have few or none of the improvements or conveniences which constitute a part of a modern community.

It is, therefore, proper to raise the question as to whether or not it would be better to move the few people who live in such communities out into communities where modern conveniences already exist rather than tax the people into bankruptcy in order to take modern civilization to the people who prefer isolated communities.

Certainly it would be cheaper to move them out than it would be to take civilization in to them because if we put doctors into the communities they must be maintained and must continue to be maintained at public expense on and on unless the community is capable of supporting itself in addition to paying for the services.

If the natural resources of the community are such that this cannot be done or if the people are indisposed to develop their resources, it still would mean that the state will maintain their roads, their schools, their churches, and their medical care.

Many of the people who live in these sparsely settled sections prefer their isolation, with its associated inconveniences and privations. They would rather do without some of the services we regard as necessary and enjoy their isolation with its freedom rather than become cramped and unhappy as they sometimes do in the tenement quarters of a modern city.

In our opinion these people constitute the smallest problem that confronts America today. They are not talking about revolutions. The fact is the congested centers constitute the biggest problem that exists. The problem is to get people to live together in peace and harmony.

The mortality and morbidity rate in these remote sections is not such as to cause alarm. The tenement sections of our large cities, in spite of modern hospitals and modern health departments, have a higher morbidity and mortality rate.

There are health-giving qualities in the very life these people lead. They are not worn out and exhausted by arduous tasks performed in unhygienic surroundings. They get the full benefits of the health-giving qualities of the sunshine—and sunshine is a wonderful disinfectant. The body resistance of these people is kept at a pretty high level. Contagions are least likely to become widespread among them because of their isolation. In the main these people are not begging for sympathy. It seems there is a sort of reckless squandering of human sympathy and money on them which might well be spent in improving the habits, the lives, the diet, and the work of some intellectuals in congested centers who try to find a problem in the remote section when it

actually exists at their own doorstep.—Editorial, *The Journal of the Tennessee State Medical Association*, April, 1934.

Medical Care of Students.—D. F. Smiley, M.D., of Cornell University, Ithaca, N. Y., in his presidential address of the American Student Health Association, Chicago, Ill., Dec. 28, 1933, states that a study of the 1078 colleges, universities, and professional schools of the country would show their student health services organized upon bases as far apart in general principles as the 2 poles—some proving only an administrative organization and depending almost entirely upon the general practitioners of the community for the actual medical work, some providing college physicians to take over the complete medical and surgical care of their students and using the general practitioners of the community little or none at all. Nothing will be likely to change the policy of those institutions already well organized on either one of these diverse bases. When, however, institutions are contemplating the organization of a student health service they should look for advice to the American Student Health Commission.

His conclusions are as follows:

(1) The physician-patient relationship as ideally found in the private practice of medicine is extremely valuable and every effort should be made to preserve it. Among the reasons for subscribing to this belief, 2 are perhaps most important: First, the right of the patient to terminate promptly the services of the physician if those services are not satisfactory is, in most instances, a potent and self-operating device for protecting the patient against inadequate medical care; second, the patient who chooses his physician and pays him directly for personal services rendered is more apt than not to value and, therefore, respect and follow the advice thus sought.

(2) We should continue to make the private practitioner of medicine the key man in the medical care of the children in our public schools but the practitioner should be making much more definite efforts to fill this important place adequately.

(3) In the majority of our colleges and other institutions of high learning where funds are limited and no medical college staff is easily available, an institutional health service and infirmary should be definitely provided but the emphasis should be placed first upon the health educational and preventive phases of medical work (such as communicable disease control, annual health examining, medical advice for minor incipient illness, and hygiene teaching) and much of the strictly therapeutic work such as that of the surgeon, internist, and ophthalmologist should be referred to those physicians and specialists practicing in the community.

(4) In those universities provided with ample funds for the purpose or with a medical college staff available, the provision of complete care for the student body in addition to the usual health educational and preventive medical facilities is both practical and proper, and the pioneer experience of these institutions in this new field of organized medical practice should be watched by all of us with the greatest interest.

(5) The development of school and college health services in medical hands and along conservative lines will meet a very real educational need and will provide for the medical profession an opportunity for even greater service. Let us hope that the medical profession will throw off its fear of treading new paths and cooperate whole-heartedly with the educational authorities in this important venture.—*The Journal-Lancet*, April 15, 1934.

Abstract of Annual Report, 1933-1934, of the Commission on Medical Economics of the Philadelphia County Medical Society.—The Commission on Medical Economics consisting of Francis F. Borzell, John T. Farrell, Francis Ashley Faught (chairman), and Seth A. Brumm, president-elect (ex-officio), appointed to serve continuously for a period of 3 years, completed its first year of service on June 1, 1934.

In attacking the many problems of medical economics in its community, the commission has been guided by the "Statement of Principles and Ethics of Practice" (Information Bulletin No. 2) adopted by our Society, June 7, 1933, supplemented from time to time by recommendations suggested by changing conditions. All suggested changes in policy have been submitted as *ad interim* reports to the Board of Directors, which body has seen fit to approve these reports.

The work outlined in Bulletin No. 2 was so comprehensive that the commission quickly discovered that it would be impossible, even with the able assistance of the members of the several sections, to make any attempt to go forward immediately with such an extensive program. Accordingly, it was found advisable to select those activities which the commission judged to be the most pressing, reserving for future consideration and action, those which appeared to be of lesser importance. The Commission on Medical Economics has not only confined itself to local problems directly affecting the public health and the physicians' income, but has made an exhaustive study of the present National medical economics problems confronting the profession and the public.

The most outstanding of these problems are: Health insurance, or state medicine, and hospitalization plans.

Pronouncements emanating from the Milbank and the Rosenwald Funds have led to the conclusion that to them we may look for the propaganda for regimentation or socialization of medical services. They have definitely committed themselves, with their capitalization of millions, to the task of bringing about legislation favoring compulsory health insurance throughout the United States.

The commission has kept before it 2 main objectives:

1. To render the best possible medical service to the patient.

2. To retain the lofty ideals, the will to serve, the incentive to progressive medicine, that has always guided our profession.

The conclusions reached are in full accord with the pronouncements of the American Medical Association.

There has been no system yet offered, or tried, that fulfills the requirements necessary to insure for the public and the profession the 2 basic aims. The commission has no such system to offer. The 10 points recently passed by the House of Delegates of the American Medical Association (see PENNSYLVANIA MEDICAL JOURNAL, page 924, Aug., 1934), so thoroughly cover their position that they recommend to the profession their unanimous acceptance as our professional decalogue.

HOSPITALIZATION INSURANCE

The commission looks with disfavor upon all of the plans thus far proposed. Plans that do not include payment for medical services fail to be attractive to sufficiently large groups to insure their success. Every scheme proposed is based on the assumption that only 10 per cent of the subscribers will be beneficiaries. Therein lies their actuarial instability. Insurance authorities tell us that all forms of medical or hospitalization insurance require at least 50 per cent margin for financial safety, as compared with about 5 per cent for

life insurance. Where hospitalization insurance plans include medical services, the benefits are always at the expense of the physician required to render the service, by virtue of his position on the hospital staff. In order to make these plans profitable, subscribers must be secured. This necessitates solicitation, with all its attendant evils, such as competition between hospital organizations or commissions to solicitors. Such plans only lead to professional disorganization, lowering of the quality of service, and unnecessary hospitalization thereby increasing, instead of reducing, the cost of medical care.

The commission has been accused of being too aggressive, but believes there is a need for immediate and militant activity. The situation is acute, particularly as regards insurance schemes to cover the cost of hospitalization during illness, and because of the fact that all indications clearly show that a bill or bills will be introduced into the State Legislature, the purpose of which will be to foist some form of state medicine upon us. In evidence of this the following is submitted:

1. There is rapidly increasing evidence which indicates that many state legislatures in 1935 will consider bills relating to these 2 subjects. These will be prepared and supported by powerful and well-financed groups which have openly advocated State Medicine.

2. In support of this plan, the Milbank Memorial Fund has recently issued a pamphlet entitled "Problems of Health Conservation." This is a report of the proceedings of the 12th Annual Conference of the Advisory Council of that Fund, which was held in New York City March 14 and 15, 1934. In this pamphlet are the following recommendations:

(a) The prompt and widespread application of the insurance principle to spread the cost of medical care, and the creation of state-wide systems, operating under a Department of Medical Care, which shall "include home and office care by the physician," *i. e.*, out and out state medicine.

(b) That all federal health activities shall be combined under a single head, in one department, which shall include federal control of the private practice of medicine under the direction of a cabinet member.

(c) They have developed and advocate a national plan of influencing state legislative proposals during the coming year, this to be accomplished largely through the widespread distribution of 2 publications now in process of preparation. The purpose of these is to—

(1) "Stimulate and facilitate the preparation of sound (?) legislative programs," and

(2) "To discourage or amend proposals which otherwise might not be altogether in the best public interests," *i. e.*, to forestall and counteract any constructive programs which might be acceptable to the medical profession.

3. In an after-dinner speech Harry L. Hopkins, director of the Federal Emergency Relief, came out definitely in favor of compulsory insurance, in evidence of which the following is quoted:

"I believe that health insurance is coming.....We could carry the American people with us, not only for employment insurance, but for sickness and health insurance, and that it could be done in the next 18 months."
(To be concluded in February.)

Additional Data on Medical Economics—

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MEDICOLEGAL

Decision Reversed.—The court jury's verdict in favor of Harvey F. Saltzer, Penbrook, in which the plaintiff was awarded damages of \$5000, has been set aside and a directed verdict given in favor of the defendant, Dr. Frank F. D. Reckord, Harrisburg.

After the jury's decision, Dr. Reckord's attorneys made a motion for judgment *non obstante veredicto*, which was granted by Judges William M. Hargest, C. V. Henry, and Frank B. Wickersham.

Physician Retained by Insurance Company May Recover from Employer.—A physician may maintain a common law action against an employer or its insurance carrier retaining him to render aid to an injured employee, although the injury is within the New York Workmen's Compensation Law. The plaintiff in this case was employed by the insurance company carrying the employer's compensation insurance, which retained the doctor, and subsequently became involved. The Municipal Court of the City of New York, Hyman v. Hudson Contracting Co., 272 N. Y. S. 670, held that the insurance company, in retaining the doctor, did so as agent of the employer, and in the event the agent did not pay for the service the employer was liable.—*Medical Record*, Dec. 5, 1934.

Number of Teeth Safely Extractable at One Time.—In an action against a physician and a dentist for malpractice in removing a patient's tonsils and extracting 16 infected teeth at one time, notwithstanding that the patient had rheumatism and a weak heart, the Colorado Supreme Court—Brown v. Hughes, 30 P. (2d) 259—reversed a judgment for plaintiff, suing for the death of the patient, her husband, for failure of the evidence to show that the defendants were negligent, or to show more than that the death might have resulted from the operations.

There was evidence that the practice followed by the defendants had been successful in similar cases in medical and dental history, and none that it had not. The general substance of the testimony of plaintiff's witness was to the effect that the particular witness did not consider it advisable practice, some saying that they would not have pulled more than 2 or 3 teeth at this time, or on the first extraction, but the majority of plaintiff's witnesses concluded that such matters were to be left, as in all cases, to the best judgment of the operator.—*Medical Record*, Dec. 5, 1934.

Pulling Unauthorized Number of Teeth at One Time.—In an action in trespass against a dentist for the unauthorized removal of 23 teeth at one time, resulting in illness of the plaintiff, in which verdicts were awarded to the patient and her husband aggregating \$2300, judgment for plaintiff was reversed by the Pennsylvania Superior Court—Moscicki v. Shor, 163 Atl. 341—and a new trial ordered for the following reason:

The plaintiff, it was held, failed to furnish sufficient evidence to submit to the jury that there existed a reasonably general agreement that it was not proper practice to remove the 23 teeth at one time and, on the contrary, did show that competent medical authority is divided, and that the practice employed by defendant was that followed by a considerable number of his professional brethren in good standing in his community.

The test is not the general opinion of the majority of dentists, the court said. And it is not for the court or jury to determine which of 2 systems is the better,

nor to decide questions of surgical science on which surgeons differ among themselves.

The plaintiff was, however, entitled to at least nominal damages, the court held. The teeth were removed while the patient was under an anesthetic and without her knowledge, although she had insisted that only the teeth in the lower jaw should be pulled. "An operation without the consent of a patient under such circumstances constitutes a technical assault," in the absence of an emergency.—*Medical Record*, Dec. 5, 1934.

PHYSICAL THERAPY

Passive Vascular Exercise

An interesting new development in the field of physical therapy is known as passive vascular exercise. Herman of Cincinnati and Landis of Philadelphia have been interested in developing this method of treatment.

It has been found that in certain obliterative structural diseases of the arteries of the extremities such as Buerger's disease, diabetic endarteritis, and arteriosclerosis, heat applications alone are of little benefit in improving circulation because the vessels are too badly diseased to dilate from heat stimulation.

The above-mentioned investigators conceived the idea of placing the diseased extremity (leg or arm) in an air-tight chamber and then applying alternatively negative and positive pressure. The pressure varying from minus 120 to plus 120 millimeters of mercury and continuing in cycles of 25 seconds negative to 5 seconds positive pressure. If such alternate negative and positive pressures are applied to the extremity for one-hour periods or longer each day there will be a mechanical dilatation and contraction of the peripheral blood vessels, and finally a considerable improvement in the blood circulation. Early superficial gangrenous lesions have been seen to heal and pain has been greatly relieved.

This method of treatment is pure physical therapy and all physicians interested in this field should familiarize themselves with it.

The passive vascular exercise apparatus offers considerable promise of future usefulness in treating peripheral vascular diseases and we venture to prophesy that much more will be heard of it in the next few years.

INDUSTRIAL MEDICINE

The Reduction of Industrial Eye Casualties.—How industry can reduce eye casualties, with resulting tremendous savings—financial as well as human—is outlined by Dr. Walter H. Snyder, of Toledo, Ohio, in the current issue of *The Sight-Saving Review*, quarterly journal of the National Society for the Prevention of Blindness. Dr. Snyder, president of the Ohio Commission for the Blind, says in part:

It is cheaper to prevent eye accidents than to pay compensation and to make up the loss in time and efficiency caused by these accidents. It seems almost inexcusable, therefore, that employers overlook any possible safeguard.

Two railroads in the United States have bought goggles at their own expense for the men who were subjected to eye dangers, and both of them report that there is a satisfying decrease in the number of blind eyes during the year. The cost of prevention has been absorbed by fewer injuries.

Before the era of mass production, most eye losses

were caused by gunfire, discharges from blasts, and, occasionally, from flying foreign bodies in machine shops; but with the advent of high-speed tool steel, which will retain its temper while at white heat, and with rapidly turning lathes, the number of foreign bodies which penetrate the globe is enormously increased. Unfortunately, many of these metallic materials are nonmagnetic and it is more difficult, therefore, to remove them from the eye without doing considerable damage.

While there has been a reduction in the number of accidents to workers using hand tools, it has been offset by a vastly increased number of accidents to machine tool workers. The use of abrasive wheels, emery, carborundum, *etc.*, together with the polishing materials, also has increased the number of accident cases having minute foreign bodies embedded in the cornea.

Electric welding, a much used technic in industry, has also taken its toll of sight. Unless the operator's eyes are carefully shielded—and many of the masks are insufficient protection—the lids may suffer a burn and blind spots may develop in the retina. It has not been realized that bystanders, especially those working in proximity, may suffer almost as much as the operator.

The electrical discharge in blasting has materially lessened one danger to the eyes. The old-fashioned lighting fuse and black powder frequently burned so slowly that, when investigated, it went off and ruined the eye of the employee.

In mass production there will always be the danger of flying particles from one machine hitting an operator at another machine, even as far away as 30 feet. It would seem that there could be a set-up of machines in irregular intervals that would lessen this danger or that a screen of plate glass could be interposed between these machines or around them to prevent accidents.

One rule which should always be enforced is that any man grinding a tool on an abrasive wheel, unless the wheel is amply protected by plate-glass guards, should wear goggles. Another regulation to which there should be no exception is that any man who has lost the vision of an eye should wear a glass on the remaining eye for protection from foreign bodies even though no correction is needed in the glass itself. Very few eyes have ever been injured by broken glass from the spectacle lens.

The safety-first programs should include instructions against the use of files and very highly tempered steel for punches if they are not intended for that purpose, and also against the use of cheap cast-iron hammers which are often thought to be good enough for household use. In industry, hammers of lead or copper should be supplied and battered punches ground off or replaced.

The factory hospital of industrial plants is an important factor in efforts to reduce eye losses. The first treatment that is given an embedded foreign body often determines what the disability will eventually be; in the smaller concerns employing 50 men or less these cases are not so likely to be treated properly as in the larger shops.

With proper protection from accidental injury; with care when accidents occur; with advice as to the prevention of diseases that may cause visual loss, including examination for glasses, the total loss of vision in modern mechanized industry could be reduced to the minimum.

HOSPITAL ACTIVITIES

If Your Board and Staff Want to Know About Group Hospitalization.—Mr. C. J. Cummings, superintendent, Tacoma General Hospital, Tacoma, Wash., prepared this summary from a study made for submission to the Washington State Hospital Conference at a meeting held Oct. 27, 1934.

The community problems which have prompted the widespread discussion of group hospitalization show that this form of protection is very likely to be a permanent solution of the payment of hospital care, not an expedient in this time of depression. It has been demonstrated through actual experience that a low annual payment will be adequate to furnish service benefits to the working people, who are at present heavily burdened in the event that illness strikes in the family, especially if it be the wage-earner.

This low annual payment has been shown to cover almost every type of hospital service benefit which the average member in this group hospitalization plan may need. It is of direct benefit to physicians that a member may provide in advance for possible hospital care.

He deals with the problems in Washington and suggests how a study of the plans now in operation throughout the United States may be applied to their case and how they may be aided through the experience of others.

WHAT IS IT?

Group hospitalization is a plan whereby the cost of hospital care is spread over a group rather than laid on the shoulders of the individual. A large number of people paying a small sum each year provide hospital care for those among them who may need it. In Tacoma, Seattle, Yakima, and elsewhere it is impossible to expect the worker to create a reserve that will meet the costs of inevitable and almost always unexpected illness.

The East, the South, and the Middle West have devised plans for group hospitalization. Two plans have served their respective communities for more than 10 years; the rest have been in operation from 2 to 5 years. On the Pacific Coast, plans are being discussed and instituted which vary from the generally accepted meaning of group hospitalization to insurance. He uses the former, the generally accepted meaning, instead of the term "insurance," because, as Dr. Rorem says, "Where hospitals assume the direct responsibility for service to subscribers, the agreements take the nature of 'service contracts' rather than insurance, and it is important that group hospital agreements be *distinguished from* rather than *identified with* insurance."

The legal status of each plan must be carefully considered. The plan again differs from insurance because it is administered by a nonprofit organization. In New York state, group hospitalization was delayed because the state laws did not provide for organizations of this kind. The last legislature passed a bill correcting this situation. In Washington, a careful survey of the laws can determine just how a nonprofit association of this kind could be organized.

CITY-WIDE OR SINGLE?

A survey of plans now in operation shows that most of them provide city-wide service. However, the 2 plans of longest standing are single hospital plans. There are many other single hospital plans; one of the most notable of these is sponsored by the Baylor Hospital, Dallas, Texas.

It is impossible to state at this time whether the single hospital or city-wide organization is most feasible in

a few Washington cities where county medical societies are driving so hard for their type of protection. He refers principally to Pierce County Medical and Surgical Bureau, which is the founder of medical and hospital protection, and to the King County Medical Service Bureau, which enrolled 8000 employees in a comparatively short time up to the midyear in 1933. The Pierce County Medical and Surgical Bureau had about 3000 at that time.

The following statements are criticisms of the present set-up: Figures prove that care is provided at a rate which gives the doctor and hospital lower compensation for the services than is comparable with present-day expense incidental to practice. Employees having a salary ample to meet sickness expenses for themselves and their families at regular rates are included with those in the low wage bracket. This fact is admitted by all but is continued as a "bribe" to secure the contract. The coverage is no longer limited to clear-cut industrial trades, but the tendency is to branch out with no clear conception as to the factors which should limit this type of practice. Cheap coverage of the worker (actually below the cost of service) is reflected in lower rates to their families. This in turn causes lower prices to relatives, acquaintances, neighbors, *etc.*, and their families, who are cared for by the contract doctor. The result is that the noncontract doctor is forced in self-protection to lower his rates.

The net result of this practice will be a lowering of the total professional income and quality of professional practice. The public may demand some form of contract medicine (state or otherwise) which will enable a *bureaucracy* to control medical practice.

When group hospitalization is being discussed, the question immediately arises as to who shall assume the sponsorship and control of this plan? The preliminary discussion begins with hospital superintendents, doctors, and interested business men. From this point there begins a general discussion among civic-minded individuals or groups. The most important point to bear in mind is making clear to the potential member the benefits which he will obtain under this plan. The American Hospital Association has endorsed the idea of group hospitalization. Michael Davis, Ph.D., in "Trends and Programs in Medical Care," says, "For several years, even before the depression, the difficulty experienced by many patients in paying for hospital service and the difficulties of hospitals in collecting patients' fees suggested the need of a practicable method of enabling patients to budget their hospital bills. The present widespread interest in group hospitalization is, therefore, not accidental or of recent or merely temporary interest; on the contrary, it reflects fundamental social need which has been recognized for a long time."

With such a recommendation as this and the support of such agencies as the community chest and the visiting nurses' association, representing social service work, *etc.*, the public may become generally informed in a comparatively short time.

When the plan is about to be organized, the fact must be stressed that the control rests with a *nonprofit* association. As time goes on and a reserve accumulates, the annual fee may be lowered or more benefits may be provided without extra cost. A very small percentage is required for the administration of this plan, but actual practice has revealed that a reserve does accumulate. The original cost of setting the plan in operation should be provided from contributed funds, but since group hospitalization makes it possible for otherwise self-supporting individuals to provide for their own hospital

care, there is, in the end, less of a drain on the community for funds for charity, and the project is indeed workable.

WHAT RATES ARE CHARGED?

The annual fee varies from \$5 to \$12 for the individual who subscribes in a group. This group subscription is preferable to individual subscription because it minimizes the details in the matters of collection and recording, thus reducing overhead costs.

It is a distinct advantage to offer these benefits to groups of employees. Payroll deductions simplify book-keeping. The fact of employment signifies reasonably good health, and by reason of employment the subscriber is less likely to abuse the privilege of hospital benefits because of the loss of wages and the uncertainty of reemployment. Self-employed individuals may be accepted by requiring them to enroll their own families or other individuals to form a group of 10. This tends to reduce the hazard of enrolling subscribers in immediate need of hospitalization.

The plans for group hospitalization include the wage-earner but do not provide for his dependents. Many practices have been and are being devised to provide for the family. Some offer hospital benefits to one of the family at the same price as to the wage-earner with a certain percentage of reduction to each succeeding member. Some offer reduced rates for subscription with reduced rates also for services not included in the hospital benefits. In almost every case a maximum sum is set for each family regardless of its size.

The annual rate varies in each locality according to the local cost of hospital care. The factors which must be considered in arriving at this figure are:

1. The composition of groups of subscribers, as to age, sex, physical condition, *etc.*, which affects the need or demand for service.
2. The total number of subscribers, the number of different groups, the frequency and manner of paying subscriptions, all of which affects the cost of administering the plan.
3. The scope of benefits and the types of cases accepted, which affect the volume of hospital care given to subscribers.

In a city with a population of approximately 100,000, a group of 10,000 or more subscribers would undoubtedly put the plan on a sound financial basis.

WHAT SERVICES ARE GIVEN?

What should hospital service benefits include? 1. They should offer the widest possible coverage as to the types of subscribers. Ultimately they should include large groups, small groups, individuals, women and children, and unemployed dependents. 2. There should be a period of protection of from 14 to 21 days (depending on the number of years enrolled) before hospitalization in event of absence from the city at the time of sudden illness. 3. Greatest possible coverage as to special diagnostic and treatment services with substantial discounts on services required beyond those provided without extra charge. Special nurses are not to be included in hospital service benefits. 4. A minimum of exclusions as to cases accepted. Let the exclusions be based on other coverages such as governmental provision for mental, tuberculosis, or communicable diseases. By the establishment of a waiting period from the time the contract is signed until hospitalization is available, abuse of hospital benefits may be reduced and a minimum of exclusions made. First-aid in accidents must be given immediately, as now. 5. There should be a definite statement as to the liability of the hospital service association when specific per-

formance of service is impossible. 6. The subscriber will be admitted for hospital care only upon the recommendation of the attending physician and hospital service will not be rendered without charge after the attending physician has stated that further hospitalization is unnecessary.

WHAT ABOUT THE DOCTORS?

There is nothing in the foregoing statements that suggests the inclusion of the doctors' fees in the plan for hospital service benefits. It is definitely undesirable to do so. There should be nothing included which would tend to the cheapening of medical service. When hospital charges are cared for under the plan of group hospitalization, the subscriber is able to pay his doctor more promptly, and experience has shown that he actually does so.

The American Medical Association in its convention at Cleveland, laid down 10 excellent principles for medical service.

OFFERED AS A SOLUTION

This problem existed before the time of the Committee on the Costs of Medical Care and before the depression. During this period of widespread unemployment it has become more acute. The author offers these statements as a suggestion for the solution of the problem:

All features of medical service should be under the control of the medical profession; all medical phases of all institutions involved in the medical service should be under professional control. The physician is the only one whom the laws of all nations recognize as competent to use them. The immediate cost of medical service should be borne by the patient if able to pay at the time service is rendered; medical service must have no connection with any cash benefits. There should be no restriction on treatment or prescribing not formulated and enforced by the organized medical profession. No third party must be permitted to come between the patient and his physician.

William H. Walsh, M.D., in his address before the Washington State Hospital Council last year, stated "An acceptable group plan for hospital service alone should specifically exclude any provisions for clinical attendance, this phase of hospital service remaining a matter of individual negotiation between the subscriber and his own physician. Roentgen-ray, physical therapy, laboratory, and anesthetic service rendered by physicians may be included in the plan only when such services are provided on the order of the attending physician and when the professional heads of these services are engaged by the hospital or remunerated otherwise on an equitable basis.—*Hospital Management*, Nov. 15, 1934.

PUBLIC HEALTH

Noise the Bane of Modern Civilization.—With progress comes its drawbacks. It is a penalty of advance. None of these drawbacks is more important from considerations of health than the noises which are the accompaniment of the multiplication of machinery and of other methods which mark the onward march of human endeavor. We are becoming the slaves and not the masters of machinery and its allies, and noise is coming to be an ordinary feature of our daily and even of our nightly life. In this country noise is perhaps more predominant than in any other, and up to the present time we have borne with the medley of discordant

sounds which harass and rack our nerves by day and night without complaint. It is felt that it is hard to kick against the pricks or that it is unlikely that our cries for relief from the ubiquitous and omnipresent racket will be heeded, so that thus far we have suffered in silence or have not been vociferous in our protests. But even the worm will turn, and signs are evident that we have endured enough and that a halt must be called and some cessation must be made of the terrible turmoil from which we never seem to be free.

In Britain an Antinoise League has been formed of which that distinguished physician, Lord Horder, is among the chief prophets. He has done yeoman service in speaking in all parts of Britain, declaiming in the strongest terms against the ceaseless hubbub of modern existence. Lord Horder speaks from the point of view of health and shows that "this matter of noise is very much one in which medicine should concern itself. The problem touches medicine in its most important aspect, which is preventive medicine."

He is of the opinion that noise is a factor of the first importance in causing disease. Few members of the profession will disagree with him. Noise causes disease by undermining the most essential part of our physical economy, the nervous system. Break down or impair the smooth working of this system and we fall an easy prey to diseases of every description. What will it profit us if we conquer or subdue most diseases and relapse into a nation of neurasthenics?

There is no doubt that nervous affections have increased greatly and are increasing almost by leaps and bounds. Witness the advance of psychology and psychiatry. While a certain amount of noise is so intimately associated with industrial progress that it cannot be eliminated may be granted, on the other hand, is it essential to industrial advance that such advance must be attended with noises injurious and sometimes ruinous to health? Cannot more consideration be shown for the comfort and well-being of the public at large without at the same time unduly hampering industries? Again it may be said, what will it profit us to become rich and prosperous if in the effort we lose our health? After all, the health of the people is the supreme law.—Editorial, *Medical Record*, Dec. 5, 1934.

The Gamble with Death.—Mathematical record tends to support the opinion of Harold G. Hoffman, New Jersey Motor Vehicle Commissioner and Governor-elect, that speed is the reason for increasing numbers of automobile accidents. He reports that speed accounts for an increase of 45 per cent in New Jersey accidents during the first 9 months of 1934, and he scores the propaganda of makers of high-powered cars for contributing to the rise.

Two-thirds of all automobile accidents in this country in 1933 were charged to driving errors, and four-fifths of the fatalities are said to have been due to driving errors in which speed was a factor. Speed is charged with being the greatest single cause of automobile deaths. 5640 in a total of 29,900; 13,760 died in accidents in which speed was a factor. In the first 10 months of 1934, according to figures of the Travelers' Insurance Company which compiles data widely used in statistical publications, there was a 16 per cent increase in fatal accidents. Already 28,400 persons have died in this year's motoring gamble with death, and if the percentage continues a new all-time record of more than 30,000 will be made. The highest previous slaughter was 33,740, in 1931.

Better streets and highways, better brakes, improved highway signal systems, and amended motor legislation have failed to check the mounting accident figures. The fault is mainly with reckless drivers. Speed is relative, for a pace too fast for the conditions is excessive under the law and in common sense. In every accident it increases the gamble with death, even though not a direct cause of the accident.

Figures of 10 months also sustain the indictment against the mixture of beverage alcohol and gasoline. The number of drivers declared intoxicated when involved in accidents has increased nearly 24 per cent and the number of pedestrians 55 per cent.—Editorial, *Philadelphia (Pa.) Evening Bulletin*, Nov. 23, 1934.

Morbidity in Pennsylvania in October, 1934

Locality	Disease				
	Diphtheria	Measles	Scarlet Fever	Typhoid Fever	Whooping Cough
Aliquippa	0	2	59	0	0
Allentown	6	2	8	2	18
Altoona	1	0	11	0	12
Ambridge	0	0	3	0	0
Arnold	0	0	5	0	0
Beaver Falls	0	0	2	0	2
Bellevue	0	0	0	0	1
Berwick	0	0	3	0	0
Bethlehem	1	0	0	0	3
Braddock	1	1	1	0	0
Bradford	0	9	0	0	2
Bristol	0	0	0	0	0
Butler	0	26	2	0	6
Canonsburg	1	0	5	0	2
Carbondale	0	0	0	0	0
Carlisle	0	0	0	0	0
Carnegie	0	0	0	0	3
Chambersburg	0	0	1	0	1
Charleroi	0	5	1	0	1
Chester	3	0	2	1	4
Clairton	0	0	0	0	3
Coatesville	0	0	0	0	0
Columbia	0	0	0	0	0
Connellsville	0	0	2	0	0
Conshohocken	0	0	2	0	0
Coraopolis	0	1	9	0	2
Dickson City	0	1	0	0	0
Donora	0	0	11	0	4
Dormont	0	0	0	0	1
Du Bois	0	0	0	0	0
Dunmore	1	0	0	0	0
Duquesne	0	1	2	0	0
Easton	0	0	3	1	0
Ellwood City	0	1	2	0	0
Eric	0	3	5	1	11
Farrell	0	0	1	0	0
Franklin	0	0	17	0	0
Greensburg	0	0	6	0	2
Hanover	1	0	1	0	0
Harrisburg	9	6	1	1	14
Hazleton	2	2	3	0	2
Homestead	0	0	2	0	0
Jeannette	0	0	1	1	0
Johnstown	8	0	11	1	11
Kingston	0	0	0	0	0
Lancaster	1	0	12	2	13

Locality	Disease				
	Diphtheria	Measles	Scarlet Fever	Typhoid Fever	Whooping Cough
Latrobe	0	3	4	0	1
Lebanon	0	0	0	1	1
Lewistown	0	0	0	1	0
McKees Rocks	3	0	5	0	0
McKeesport	2	2	7	0	5
Mahanoy City	1	1	3	0	0
Meadville	0	0	1	0	0
Monessen	0	0	7	0	0
Mount Carmel	1	0	3	0	0
Munhall	0	0	5	0	0
Nanticoke	2	0	3	0	0
New Castle	0	0	7	0	0
New Kensington ..	1	0	8	0	0
Norristown	0	1	1	0	11
North Braddock ..	1	0	2	0	1
Oil City	0	1	1	0	23
Old Forge	0	0	0	0	0
Olyphant	0	0	0	0	0
Philadelphia	15	9	123	17	255
Phoenixville	0	0	0	0	0
Pittsburgh	28	21	116	1	35
Pittston	2	0	0	0	0
Plymouth	0	0	1	0	1
Pottstown	0	2	5	0	0
Pottsville	4	0	2	1	2
Reading	4	1	16	0	71
Scranton	1	48	14	0	36
Shamokin	0	0	0	0	0
Sharon	1	0	7	1	0
Shenandoah	0	0	10	0	0
Steelton	0	0	0	0	0
Sunbury	0	2	3	0	1
Swissvale	0	0	3	1	2
Tamaqua	0	1	1	0	1
Taylor	0	0	0	0	0
Turtle Creek	1	3	1	0	0
Uniontown	1	7	1	0	3
Vandergrift	0	0	10	0	0
Warren	1	1	0	0	0
Washington	0	0	9	1	10
Waynesboro	0	0	0	0	0
West Chester	0	0	0	0	0
Wilkes-Barre	6	0	3	0	3
Wilkinsburg	0	0	4	0	2
Williamsport	0	2	1	0	7
York	0	0	1	1	0
Townships					
Allegheny County:					
Harrison	0	0	1	1	0
Mt. Lebanon	0	0	0	0	0
Stowe	1	0	2	0	0
Delaware County:					
Haverford	0	1	5	1	5
Upper Darby	0	2	4	0	19
Luzerne County:					
Hanover	3	0	3	0	0
Plains	2	0	2	0	0
Montgomery County:					
Abington	0	0	0	0	3
Cheltenham	0	0	2	0	0
Lower Merion ...	0	0	6	0	6
Total Urban ..	107	168	607	37	622
Total Rural ..	152	985	674	79	537
Total State ...	259	1153	1281	116	1159

TUBERCULOSIS ABSTRACTS

A Review for Physicians

PREPARED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Published through the coöperation of the Pennsylvania Tuberculosis Society and The Medical Society of the State of Pennsylvania

BRONCHIECTASIS, one of the less common pulmonary conditions, must be constantly kept in mind by the clinician who treats chest diseases because it is so easily mistaken for tuberculosis. To the patient, bronchiectasis is more than a disease—he suffers not only its distressing symptoms but also an unbearable ostracism. Faulty diagnosis and delay in treatment make his condition more hopeless. Modern technics of diagnosis and treatment have given the problem a much more hopeful aspect. In a recent article Drs. Jackson shed new light on the etiology of bronchiectasis, and this is in turn reflected in more effective treatment. Extracts of the article follow.

BRONCHIECTASIS—A SEPTIC TANK

The causes of bronchiectasis have long been a subject for discussion, pathologic studies, and clinical research. These causes are well known, even if not conclusively proved, and they therefore do not need comprehensive presentation here. There are a few features, however, that do not seem to be generally recognized.

Broadly speaking, the etiologic factors generally considered responsible for bronchiectasis include:

1. Congenital factors.
2. Infection, including predisposing causes thereto, foci in sinuses, teeth, tonsils, etc.
3. Pathologic changes in the bronchial wall.
4. Pathologic changes in the peribronchial tissues.
5. Obstruction—trachea, bronchi, glottis.
6. Stagnation of secretions.
7. Positive endobronchial air pressure.

To these should be added a factor largely overlooked, namely, (8) *the viscosity of certain bronchial secretions*.

In a well-developed bronchiectasis three groups of organisms are involved: (1) the primary organisms in the primary focus; (2) the secondary saprophytic organisms that reduce viscosity; and (3) the organisms producing the pus that results from irritation of the bronchial mucosa by the biochemical products of the saprophytes.

The last of these groups has not been generally recognized. When a mucous membrane, such as the bronchial mucosa, is kept in contact with any irritant material, pus is produced. The dilated bronchial sacs are in effect what the sanitary engineer calls septic tanks in which the biochemical products of the saprophytic organisms reduce the viscosity of the secretion, irritate the mucosa, and produce pus swarming with organisms. The putrefactive organisms are not the primary ones but enter by way of the inspired air and by means of secretions of the mouth that are normally inspired by every one during sleep.

Obtaining Secretions for Study

The unsatisfactory results of bacteriologic studies on bronchiectasis have been attributed to oral contamination, but another factor is that the *primary pus is not expectorated at all* because of its high viscosity. It remains in the bronchiectatic septic tank until its viscosity is reduced by putrefaction.

Obviously, the method of obtaining material for bacteriologic study is important. By means of the bronchoscope the superjacent pus, which always contains a variety of secondary organisms, is first aspirated. Then when additional pus is forced in from the peripheral bronchi by the tussive squeeze (cough), this is collected

separately. In it the saprophytes are relatively few and the odor usually is absent. In the residual pus are usually found the important organisms, time after time the same in the same patient. Vaccines prepared from them are of relatively much higher therapeutic value as compared to those from either sputum or the superjacent pus.

Bronchiectatic sputum is generally described as not being very adhesive. This may be true of expectorated sputum but not of the pus when first produced in the bronchi. Before saprophytic changes have taken place in the "septic tank" bronchiectatic pus is of tremendously high viscosity. This tenaciousness is a basic etiologic factor in the disease. Because of it the pus cannot be efficiently expelled by cilia or bechic blast until its viscosity is diminished by putrefactive processes. The septic tank is not only a receptacle for septic materials but a container where bacterial processes change the character of the contents. These changes in the secretion constitute nature's way of rendering it easier of expulsion by reducing its viscosity. Unfortunately, however, they also render it more irritating and the stagnation of this irritating material promotes pathologic changes in the bronchial walls, and thus constitutes an important etiologic factor in bronchiectasis. The bronchiectatic septic tank exacts a fearful price for drainage.

Prophylaxis and Treatment

The removal of the viscid pus with a powerful aspirator should be instituted early in any suppurative disease of the bronchi. If, after the acute stage of any bronchial or pulmonary infection is over, there is not a progressive improvement in the signs, symptoms, and roentgen-ray findings under medical care and management, including as it should postural drainage, bronchoscopic drainage should be instituted once or twice a week. This will often restore the defensive power of the lung and thus turn the tide.

To this should be added the administration of vaccines prepared from the material removed by the bronchoscope from the depths of the suppurative focus. Opiates that annihilate the cough reflex and drugs, such as atropine, that thicken the secretions should be omitted.

Of utmost prophylactic importance is of course the elimination of infective foci in the teeth, tonsils, and nasal accessory sinuses. It has been abundantly proved that in suppurative diseases

of the bronchi and lungs the source of the infection is a focus in the region of the upper air passages and there is much evidence to show that the route traveled is by the lymph channels as well as the air passages. Prophylactic measures, therefore, are wisely undertaken (1) before the onset of suppurative bronchial disease; (2) after the first bronchial symptoms; and (3) after bronchiectatic conditions have developed, to prevent reinfection and recurrence.

As in the prophylaxis of tuberculosis, all details of continuous medical care and management are of utmost importance, but they need no enumeration here. They should include prolonged daily rest in bed under outdoor conditions to increase resistance and build up a reserve.

It is of fundamental prophylactic importance for early diagnosis of every bronchopulmonary disease that every case of cough be run down to a definite cause and a definite lesion if possible. This is hypothetically admitted but practically it is not often done.

The prognosis is greatly improved by the use of bronchoscopic methods including (1) study of the local pathologic conditions; (2) the elimination of the aggravating processes of the septic tank; and (3) the discovery and cure of obstructive conditions.

If prophylaxis has been neglected and the septic tank condition has been established, thorough study with the bronchoscope, including search for the underlying cause and an appraisal of the damage already done, is advised. Separate specimens are taken of the superjacent pus and the residual pus. Vaccines are prepared from the organisms predominating in the residual pus.

Local medication, using diluted neoarsphenamine, acriflavine, or other germicides may be helpful. The usual management of bronchiectasis is, of course, essential. The patient should be kept in bed under outdoor conditions the greater part of the day. Postural drainage should never be neglected and if possible it should be used at every coughing paroxysm. The cough should not be inhibited; in fact when a patient feels a paroxysm of coughing coming he should at once assume the most favorable posture and assist expectorative efficiency to the utmost.

The Bronchiectatic Septic Tank, Chevalier Jackson and Chevalier L. Jackson, Amer. Rev. of Tuberc., Dec., 1934.



THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA

OFFICERS' DEPARTMENT

WALTER F. DONALDSON, M.D., *Secretary*, 8104 Jenkins Arcade, Pittsburgh, Pa.

THE NEW SECRETARY OF HEALTH

The successor to Dr. Theodore B. Appel, who served with distinction throughout a period of 8 years as Secretary of Health of our Commonwealth, is also a well and widely known member of The Medical Society of the State of Pennsylvania. Dr. Edith MacBride-Dexter, of Sharon, will be remembered by many past and present officers of our State Medical Society, members of its House of Delegates, and secretaries of county medical societies as former Secretary Edith MacBride of the Mercer County Medical Society and for many years a member of our House of Delegates.

The executive ability inherent in the character of Dr. MacBride-Dexter and developed through 10 years of efficiency as a leader in the organized medical profession will serve well the health interests of the Commonwealth. She will bring to her new position not only executive experience but sound medical training and experience and an appreciation of the value of non-bureaucratic methods in the practical application of sickness prevention methods exclusive of hygiene and sanitation as applied to water and food supplies and the limitation of epidemic illnesses. Dr. MacBride-Dexter's colleagues throughout the State will welcome and support her leadership in the administration of such service.

SEND IN YOUR REPRINTS

In an endeavor to inaugurate promptly our Society's Package Library Service by mail to our membership, the Library Committee requests all members of the Society to forward as soon as possible to 230 State Street, Harrisburg, 1 or 2 copies of reprints of articles which they

may recently have had published or will later have published in medical journals.

When a sufficient supply of material has been accumulated in the form of reprints and pages from numerous medical periodicals which will be subscribed for in the name of our Society, same will be offered to our membership on a loan basis for a period of 6 days for a small charge to cover merely cost of collection and postage.

It is not planned that our library shall become a collection of bound volumes, nor will it offer a reference service.

WALTER F. DONALDSON,
FRANK C. HAMMOND,
CLARENCE R. PHILLIPS, *Chairman*,
Library Committee.

PUBLICIZED INFORMATION ON SOCIAL INSURANCE

The following are *comments* on the subject of the threatening socialization of medical practice as well as on the outstanding weaknesses of Pennsylvania's Workmen's Compensation Insurance Act. During the quarter beginning October first, these comments appeared in 146 daily and weekly newspapers scattered throughout Pennsylvania in connection with our State Society's "Your Health" column published in the name of our component county medical societies, having apparently been accepted by the various newspaper editors as timely and of value to their readers:

Compulsory health insurance, in those countries where it has been tried, has not improved the public health.

Pennsylvania is outdistanced by 32 other states

in the liberality of its Workmen's Compensation Laws.

People who seek medical care in this country do not suffer from the lack of it. They are treated regardless of their ability to pay.

Steadily diminishing morbidity and mortality rates in the United States justify the opinion that medical service to all the people is improving in quantity and quality.

There is no other point where good medical service can be given except where the physician comes in contact with the sick person in direct personal relationship.

Compulsory health insurance does not meet the problem of caring for the unemployed sick. It has not been shown that European sickness insurance has reduced expenditures for medical care for the indigent.

Federal Relief Administrator Hopkins said from the fullness of his experience and knowledge, "It is a grand story, the work the physicians did for the unemployed in 1929 to 1934."

The foundations that are spending millions in propaganda for compulsory health insurance would be surprised at the improvement they could effect by devoting their resources to such practical uses as low-cost housing.

There is a vast need for preventive health service among the poor, but it is not as much a need for elaborate physical examinations of the able-bodied as for sanitary housing, suitable food, and regular occupation.

A prime danger to the medical profession in health insurance plans is the meddling in medical matters by lay people and borderline semi-professionals who learn a few scientific terms and then think they are authorities on health and medical subjects.

The first corollary that may be deduced from experience in medical service under workmen's compensation is that the competence to give or to judge the required medical services should be determined by professional standards and not by financial considerations.

In Pennsylvania a widow is limited to a maximum of \$3000 upon the accidental death of her husband. Greater amounts are provided in the Workmen's Compensation Insurance Laws of 39 other states.

There exists a very strong, intimate, personal relationship between a patient and his physician, and when the relationship becomes mechanical, as it does in mass medicine under the socialistic scheme, the patient becomes dissatisfied.

Haste and carelessness prompted by evangelistic methods for social legislation leading to compulsory health insurance must inevitably lead to errors and result in harm to both the public

and the medical profession and great additional expense to the taxpayer.

In the countries abroad where compulsory health insurance is in effect, the level of medical service has been definitely lowered and the physician converted into an obligatory public servant with little incentive to develop his professional skill or to increase his practice.

With very few exceptions the various states of the Union have liberalized the medical benefit features of their Workmen's Compensation Insurance Laws during the last 15 years. Pennsylvania's medical benefits have remained unchanged from the least liberal type.

"Compulsory health insurance," said Dr. Nathan B. Van Etten in the *Literary Digest*, "involves regimentation. In Europe it has not improved the public health. It can not provide reasonable compensation to physicians because of the inevitable administrative costs. Political tendencies are unavoidable."

It is prophesied that if the present trend of interference with the activities of individual physicians continues without interruption, the majority of doctors of the future will become enslaved to a social and industrial system in which quantity, rather than quality of service, will be the index of efficiency.

Physicians recognize that standardization and mass treatment such as are inevitable in socialized sickness insurance do not encourage doctors to take the postgraduate work and study so essential to the steady progress of medical science and art.

Americans cherish individualism and respect democracy. A patient likes to have his choice of physician just as he does his choice of grocer, clothier, and politician. If he does not always make the best selection he nevertheless enjoys the feeling that he has the privilege of free choice.

The proponents of socialized medicine always claim that free choice of physician will be reserved, insuring the present patient-physician relationship. Statements such as these sound like preëlection promises because any form of socialized medicine, either state or the insurance plan, will be governed by lay commissions and the physicians will be subservient thereto.

In Great Britain in 1933 costs of administration alone of governmental health insurance amounted to \$24,000,000. This item included salaries to clerks outnumbering the doctors and druggists. Apply these figures to Pennsylvania with our tendencies to continuous liberality with the taxpayers' money and the development of "jobs for the politically faithful."

Socialized medicine, according to leaders in the medical profession, would bring with it the inevitable loss of personal ambition and independence to the doctor, the certain political meddling, and the strong likelihood of encouraging malingering and complaints among persons inclined to take advantage of medical service that costs them little or nothing.

Medical benefits under Pennsylvania's Workmen's Compensation Laws may be limited either as to the time during which they are allowed or as to the amount of money allowed. Thirty other states provide no limit on either one or both of these benefits. Pennsylvania limits both time and amount and ranks forty-third among the 48 states.

In Germany during 1933 there were 6327 "Krankenhausen" requiring the employment of 34,300 clerks to administer the collection and disbursement of dues and cash benefits and to pay for the services of 32,000 doctors rendered to 18,525,000 persons under compulsory health insurance. What a "set-up" for political jobs this would be in Pennsylvania!

Even the most enthusiastic advocates of health insurance admit that sickness insurance has done little to develop or encourage measures for the prevention of disease. The insurance practitioner is too hurried and too busy with "paper work" imposed by administrators to give him much time for diagnostic or sickness prevention work.

Few physicians will be found opposed to changes "for the better," but the majority will stand adamant in opposition to the hurried thrusting upon the American people of types of insurance sickness service that have in Europe failed to keep pace in terms of sickness prevention, relief of suffering, and prolongation of life as attained in the United States to date.

Simons and Sinai, proponents of health insurance, in their book, *The Way of Health Insurance*, published in 1932, state that "after a comparative study made in Europe of many insurance systems, a conclusion seems to be justified that the evils of insurance decrease in proportion to the degree that responsibilities, with accompanying powers and duties, are intrusted to the medical profession."

The organized medical profession of the United States opposes the combination of any form of grouped medical practice, with the payment of cash benefits for disability due to sickness, because of the experience with government-controlled health insurance in Germany and Great Britain, in which such combination resulted in a 30 per cent increase in time lost on account of sickness, due largely to exaggeration

of disability for the sake of being paid for remaining sick.

Through good times and bad the health of the world has continued to improve steadily under the existing system of medical practice. The disproportionate ills of the poor and the lower middle class are due in large measure to their insecure economic status. Prevention lies in the eradication of poverty rather than the diversion of public funds to the costly governmental bureaucracy on which compulsory health insurance rests.

The mere fact that the recipients of the official orders for free medical service continue to exercise to the fullest the state-granted privilege of free choice of physician, dentist, etc., is offered as evidence that the organized medical profession is capable of delivering all forms of sickness service without political control of sickness service. Since December 1, 1933, more than 350,000 medical orders granted to those on Emergency Relief have been taken by the recipients to 9000 practicing physicians in Pennsylvania.

A TANGIBLE ADVANTAGE OF MEMBERSHIP

In the past five years the Medical Defense Fund of our State Medical Society has paid attorneys' fees for 27 members, defendants in alleged malpractice suits, ranging from \$100 to \$1000 per case, and averaging \$255. Needless to state all of these members were in good standing at the time of the alleged malpractice, their Society dues for the current year having been paid on March 31.

It is interesting to note that the most difficult and most expensive cases to defend have been "burn" cases in which the plaintiff alleged injuries received while being treated by the defendant with physical therapy apparatus, such as ultraviolet and infra-red as well as roentgen rays. These unfortunate experiences strongly suggest caution upon the part of practicing physicians in the therapeutic application of such valuable but treacherous-in-the-hands-of-the-inexperienced modalities.

1935 HONOR ROLL

On December 26, 1934, our State Society had more paid memberships than in any previous year in its history; namely, 8020. In addition the Secretary had received the 1935 State Society dues of 328 members of our Society, which is 166 more than on the same date last year.

The following of our component societies compose the first Honor Roll for 1935:

Allegheny	54	Luzerne	3
Bedford	2	McKean	5
Berks	2	Mifflin	2
Bucks	20	Monroe	2
Cambria	5	Montgomery	63
Carbon	11	Montour	6
Clarion	10	Northumberland	10
Dauphin	8	Philadelphia	11
Delaware	4	Somerset	13
Elk	9	Warren	2
Huntingdon	6	Washington	16
Lackawanna	11	York	41
Lancaster	1		
Lawrence	6	Total	328
Lehigh	5		

CORRESPONDENCE

The following letter was mailed to President Franklin D. Roosevelt and Secretary of Labor Frances Perkins:

December 13, 1934.

At the regular quarterly meeting of the Board of Trustees of The Medical Society of the State of Pennsylvania—11 representatives of the 60 county medical societies composing our 11 Councilor Districts—the undersigned was instructed to convey to you the following, expressing the unanimous opinion of the members of the Board anent current studies and discussions of methods for improving sickness service to our people.

Few physicians will be found in Pennsylvania who are opposed to changes "for the better," but the majority will stand adamant in opposition to the hurried thrusting upon the people of Pennsylvania of European types of insured sickness service that have failed to keep pace in terms of sickness prevention, relief of suffering, and prolongation of life, as has been attained in the United States to date.

The great majority of physicians hopefully await a "set-up" that will bring the desired improvement and wish to assure you that many medical organizations, from the American Medical Association down throughout our own State and county medical societies, are studying and experimenting with plans that will, when they are applied, work practically toward the assurance of constant, adequate medical service to all who need it.

The physicians of Pennsylvania, through their own State and County Committees on Emergency Child Health created in February, 1933, and their experience since November, 1933, in connection with responsibility for the quality of medical service and charges for same under our State Emergency Relief Board, believe that they have gained experience and demonstrated leadership which should inspire public confidence in our competency to deliver all forms of sickness service without further State control of the professions rendering this service.

Assuring you of the intense interest of our Board of Trustees in the subject and expressing the hope that we may be consulted by those who have more than a formal concern in changes in the types of adequate sickness service available to our American people, I am

Very truly yours,

WALTER F. DONALDSON, *Secretary*,
MEDICAL SOCIETY OF THE STATE OF
PENNSYLVANIA (8013 members).

The following letter was mailed to the Secretary-Treasurer of 2000 Pennsylvania industries employing 100 or more persons:

December 18, 1934.

Gentlemen:

There are concerted efforts on foot to socialize the practice of medicine. Should these succeed, general socialization will be under way.

The American Association for Social Security, Inc., Abraham Epstein of New York City, executive-secretary, has prepared a proposed health insurance bill for introduction into the 1935 state legislatures.

This proposed law will establish a state health insurance bureau and commission and build up a state health insurance fund from 3 sources: 1½ per cent employers' pay rolls paid by the employer; 3 per cent of the wages of employees (deducted by employers and transmitted to the state fund), and 1½ per cent of the total pay roll of employers appropriated from tax funds.

Their model bill also proposes to combine cash benefits with medical, hospital, and dental care. This means that the employer will pay his large share directly and bear his burden as an already heavy taxpayer.

The business interests of Europe have already suffered as a result of this scheme which in England, in 1933, cost through Parliamentary grants (from taxes) \$24,000,000, and in Germany gave clerical employment to 34,300 persons.

Business men and industrialists should not willingly promote socialization of business and industry in America. If the practice of medicine is socialized, the entering legislative wedge will have been gained.

The Columbia Broadcasting System is broadcasting each week, on Monday evening, over 61 stations, discussions dealing with socialization of medicine, which are predominantly propaganda in favor of this socializing effort.

Will you therefore, first, urge your legislative representatives to discourage the disrupting activities of the American Association for Social Security which is promoting these socialization schemes through active lobbies; second, use your influence with the Columbia Broadcasting Company to prevent the Council on Radio Education from broadcasting further propaganda for the creation of an expensive bureaucracy ultimately destructive of good medical service.

The Medical Society of the State of Pennsylvania through its Public Relations Committee will be glad to correspond with you further.

Very truly yours,

WILLIAM H. MAYER, *Chairman*,

(Public Relations Committee)

THE MEDICAL SOCIETY OF THE
STATE OF PENNSYLVANIA.

December 20, 1934.

TO EVERY PRACTICING PHYSICIAN IN PENNSYLVANIA:

The Commission on Cancer of The Medical Society of the State of Pennsylvania is anxious to continue the excellent work carried on under the leadership of the late Dr. Jonathan M. Wainwright during a period of 25 years. We appeal to each of you for assistance.

More cancers are being recognized and more are being cured than ever before in the history of medicine. The failures in great part are due to delayed diagnoses and delayed or inefficient treatment. In spite of the advances that we have made, the actual death rate from cancer is on the increase and furnishes the highest death rate from any disease, second only to heart disease.

We ask you as an individual physician, and all the physicians in Pennsylvania collectively, to assist in educating the public to avoid neglect of the early symptoms of cancer. Each of you can do much to educate the individual patients with whom you come in contact.

Within the month a leaflet entitled "Early Signs and Symptoms of Cancer" will be mailed to every registered physician in Pennsylvania (12,000). It contains only a few pages which may be read in a very short time. Please keep it at hand so that you can readily consult its brief outlines.

Our Cancer Commission in the past has made 3 surveys covering 3 very important points in the records of cancer patients in Pennsylvania:

1. As to when the patient first suspected symptoms.
2. As to when the patient first consulted a physician.
3. As to when the patient received thorough and efficient treatment.

The published records show a very definite improvement on all points during a period of 22 years, but there is still room for much improvement.

Please record in your notes on every suspected or recognized case the above 3 points, and assist us in making these records accurate and usable, and in bringing about earlier and more efficient treatment.

To further the above results the Commission on Cancer is arranging to hold 2 regional cancer control meetings during the year, 1 at Bethlehem and 1 at Meadville; also to enlist the coöperation of nurses, superintendents of nurses' training schools, and especially the coöperation of the tumor clinics established throughout the State. We are also calling upon the American Society for the Control of Cancer, 1250 Sixth Avenue, Rockefeller Center, New York City, to coöperate in every way possible.

The work of the individual physician, when combined with the results obtained by every other physician in the State, will do most to accomplish results, for the control of cancer is an individual problem.

Yours very sincerely,

G. E. PFAHLER, *Chairman*,
WALTER M. BORTZ,
WM. L. ESTES, JR.,
GEORGE W. GRIER,
GEORGE W. HAWK,
WM. H. HOWELL,
STANLEY P. REIMANN,
SAMUEL J. WATERWORTH,
(Commission on Cancer)
MEDICAL SOCIETY OF THE
STATE OF PENNSYLVANIA.

CHANGES IN MEMBERSHIP OF COUNTY SOCIETIES

The following changes have been reported to December 11:

ALLEGHENY: *New Members*—Harry B. Burns, Administration Bldg., Forbes St. & Bellefield Ave., Richard G. Hamilton, 121 University Place, J. Shepherd Smith, 6225 Frankstown Ave., Lee H. Schlesinger, 6225 Penn Ave., James R. Watson, 1515 Gulf Bldg., Pittsburgh; *Alta G. Charles*, 400 Bessemer Bldg., E. Pittsburgh. *Reinstated Member*—Raymond A. D. Gillis, Medical Arts Bldg., Pittsburgh. *Removal*—James A. Hamma, from Lancaster to Riverview Manor, Harrisburg; Carl C. Hoffman, from Pittsburgh, to 26 E. Main St., Palmyra; John A. Zuck, from Coraopolis, to Box 264, Stanhope, N. J. *Death*—Clarence Austin Bicking, Pittsburgh (Baltimore Med. Coll. '13), Nov. 21, age 49; George G. Turfley, Pittsburgh (West. Res.

Med. Coll. '79), Nov. 16, age 79; John A. Williams, Pittsburgh (Univ. of Pgh. '92), Sept. 20, age 67.

BEAVER: *Death*—Bertram E. Marshall, New Brighton (N. Y. Homeo. Med. Coll. '99), Aug. 30, age 60.

BEDFORD: *New Members*—Joseph H. Knisley, New Paris; William Brady West, Everett.

BERKS: *Death*—Solis B. Hertzog, Reading (Univ. of Penna. '23), Nov. 6, age 39.

BLAIR: *Removal*—S. W. Miller, Jr., from Altoona, to Alum Bank. *Death*—Ulysses S. Wharton, Altoona (Howard Univ. Med. Coll. '13), Dec. 3, age 49.

CAMBRIA: *New Members*—Solomon D. Solomon, Ebsburg; Joseph P. Choby, 408 Broad St., Johnstown. *Reinstated Members*—Ray M. Alexander, Bolivar; Arthur A. Basil, 291 Market St., Russell A. Noon, 438 Fronheiser St., Johnstown.

CHESTER: *New Member*—John G. Clark, West Chester. *Removal*—Louis P. Koster from Malvern to Lititz (Lancaster Co.); Wilmer C. Gallager from Chadds Ford to Lancaster Pike & Darby Rd., Paoli. *Transfer*—Andrew J. Lotz, Paoli, from Wrightsville (York Co.).

DAUPHIN: *New Members*—Paul S. Herr, 14 N. 13th St., John W. Plowman, 1302 State St., Peter Zemo, 1501 N. Second St., Harrisburg.

ELK: *Transfer*—Robert C. Simpson, Emporium, from Allegheny County Society.

ERIE: *Reinstated Member*—N. Troy Gillette, 8 E. Park St., Corry.

GREENE: *Reinstated Member*—Samuel T. Williams, Waynesburg. *Removal*—Samuel A. Kamerer, from Bobtown to DuBois, c/o Mrs. Pearl M. Mundorff, East Main St. *Death*—Thos. N. Millikin, Waynesburg (Jeff. Med. Coll. '85), Nov. 15, age 75.

HUNTINGDON: *Death*—Marshall B. Morgan, Huntingdon (Jeff. Med. Coll. '15), Nov. 25, age 41.

LACKAWANNA: *Reinstated Member*—Helen Houser, Medical Arts Bldg., Scranton.

LANCASTER: *New Member*—Jacob Pomerantz, Bainbridge.

LAWRENCE: *New Members*—Nathan N. Ginsburg, 133 E. Long Ave., Wm. J. Hinkson, Donald H. Eckles, Amleto Acquaviva, 1212 S. Mill St., Charles Nader, 1201 S. Mill St., New Castle; Harold R. Summer, Ellwood City. *Reinstated Member*—Samuel W. Perry, 227 North St., New Castle.

LEHIGH: *Death*—Roderick E. Albright, Allentown (Jeff. Med. Coll. '96), Nov. 23, age 62.

LUZERNE: *New Member*—Edmund V. Matys, 702 Main St., Avoca. *Removal*—Joseph J. Repa, from Trucksville to Cresson.

McKEAN: *New Member*—Thos. S. Fannin, Jr., Bradford. *Death*—Geo. M. Cummings, Eldred (Coll. Phy. & Surg., Baltimore, '92), age 74, recently.

MONROE: *New Members*—Harry B. Knapp, Nettie E. Knapp, Mt. Pocono.

MONTGOMERY: *New Members*—Frederick T. Zimmerman, State Hospital, Norristown; Rudolph K. Glocker, Trappe.

NORTHUMBERLAND: *Death*—James O. Mohn, Shamokin (Jeff. Med. Coll. '94), Oct. 2, age 66.

PHILADELPHIA: *New Members*—Albert Adlin, 1512 Lindley Ave., Bernard I. Comroe, 4422 Spruce St., Philadelphia; John Keenan Durkin, 1100 County Line Rd., Bryn Mawr; Richard B. Fruchtmann, 5108 Torresdale Ave., Saverio F. Madonna, 2925 N. 24th St., Maceo T. Morris, 202 N. 53rd St., Edward Martin Repp, 926 S. 60th St., Virginia Gould Rheuby, 2413 W. 17th St., Peter W. Romanow, 810 E. Allegheny Ave., Jacob Earl Thomas, Jefferson Medical College, 10th & Walnut Sts., Margaret Bronson Weir, 1904 Walnut St., Philadelphia. *Reinstated Members*—Virginia M. Alexander, 2104 Jefferson St., Max E. Smukler, 1940 N. Broad St.,

Philadelphia. *Removal*—Wm. P. J. Ruddy from Phila. to 90 Convent Ave., New York City. *Death*—Edwin Baldwin Gleason, Philadelphia (Univ. Penna. '78), Nov. 30, age 80; Harvey M. Righter, Philadelphia (Jeff. Med. Coll. '96), Nov. 24, age 62.

SCHUYLKILL: *Removal*—G. H. Boyer, from Letterman General Hosp., San Francisco, to Headquarters, Philippine Dept., Manila, P. I.

SOMERSET: *New Members*—Albert J. Ingham, Somerset; Henry I. Marsden, Somerset.

TIOGA: *Reinstated Member*—Hiram Z. Frisbie, Elkland.

VENANGO: *New Members*—Wm. F. Brehm, Exchange Bk. Bldg., George S. Smith, 1205 Liberty St., Franklin.

WARREN: *New Members*—Morris W. Brody, State Hosp., Warren; Jacob F. Crane, N. Warren. *Removal*—Charles W. Schmehl, from Warren, to 3805 Avondale Ave., Dallas, Texas. *Transfer*—John E. Thompson, Youngsville (formerly Pittsburgh) from Allegheny County Society. *Death*—Alden B. Macdonald, Warren (Jeff. Med. Coll. '04), age 54, recently.

WASHINGTON: *Death*—Cephas T. Dodd, Washington (West. Res. Med. Coll. '81), age 80, recently.

YORK: *New Members*—Wm. D. Comess, 437 S. George St., Florence E. Hess, 437 S. George St., York.

PAYMENT OF PER-CAPITA ASSESSMENT

The following payment of per-capita assessment has been received since November 19. Figures in first column indicate county society numbers; second column, State Society numbers:

Nov. 23	Somerset	1-11	30-40	\$82.50
	Lehigh	1-2	41-42	15.00
	Chester	1	43	7.50
26	Luzerne	1-3	44-46	22.50
	Venango*	54	8003	7.50
28	Allegheny*	1310	8004	7.50
	Allegheny	19-24	47-52	45.00
30	McKean	1	53	7.50
Dec. 3	Venango*	55	8005	7.50
	Lawrence	4-5	54-55	15.00
4	York	1-12	56-67	90.00
5	Erie*	151	8006	7.50
6	Monroe	1-2	68-69	15.00
	Somerset	12-13	70-71	15.00
	Clarion	1-6	72-77	45.00
7	Montgomery	1-40	78-117	300.00
	Bedford	1-2	118-119	15.00
	York	13-20	120-127	60.00
	Greene*	31	8007	7.50
8	Lawrence	6	128	7.50
	Lawrence*	69	8008	7.50
10	Mifflin	1-2	129-130	15.00
11	Lackawanna*	235	8009	7.50
	York	21-28	131-138	60.00
	Carbon	1-6	139-144	45.00
	Warren	2	145	7.50
	Clarion	7-10	146-149	30.00

CONTRIBUTIONS TO MEDICAL BENEVOLENCE FUND

The Committee on Medical Benevolence gratefully acknowledges the following contribution to the Fund:

Woman's Auxiliary to Medical Club of Eastern Delaware County	\$20.00
Total contributions since 1934 Report	\$529.00

* 1934 Dues.

County Society Reports

ALLEGHENY

Nov. 20, 1934

The meeting was held in the ballroom of the Hotel Schenley at 8 p.m.

C. L. Palmer addressed the members, outlining the various economic factors at present active and the general trend of governmental action, with particular attention to the various foundations and what they are attempting to do.

Joseph S. Baird read a paper on "Preventive Treatment of Measles with Placental Extract." In the prevention, modification, and treatment of measles it has been shown that placental extract may be of value. The epidemic during the past spring and summer months furnished an opportunity at the Municipal Hospital to observe and evaluate the results of treatment by this method. The extract used for this study was in an experimental stage. This extract, called "placimmunin," was made according to the specifications of McKhann. The recommended dosage was 5 c.c. for prevention and 6 c.c. or more for treatment. It is injected intramuscularly. This material has been approved by the National Institute of Health under the name of "Immune Globulin (human)." The preparation on the market now is concentrated and refined, while that used in this study was unconcentrated, and the present product has as much antibody in 2 c.c. as was contained in 5 c.c. of the unconcentrated product.

The reactions to the injections were studied in 35 cases. Many times no reaction occurred. In a minor per cent of the cases there was a mild local reaction, as evidenced by induration, erythema, or tenderness at the site of the injection. In only 7 cases was there fever of over 100° F. This seldom lasted longer than 24 hours.

In 30 cases of injection for prevention, complete prevention resulted in 26 cases, or 87 per cent. It failed in respect to complete prevention in 4 cases, or 13 per cent, but the incubation periods averaged 25 days, and the attack itself was so modified as to be comparable to one of German measles.

Five cases of measles were treated early in the eruptive stage, and there was a rapid disappearance of all symptoms within 2 or 3 days. No complications or sequelæ were seen in any of the 35 cases that received injections. This is worthy of note since the age group of the cases so treated averaged about 3½ years, and statistics show that 76.4 per cent of measles mortality is under age 5. These, furthermore, were not well children but convalescent acute infectious disease patients.

This treatment has enabled the hospital to function without closing the wards in which the measles crossed infection occurred, something which was impossible previously.

"Some Conditions Masquerading as Arthritis" was read by H. M. Margolis. He pointed out that arthritis merely signifies a disease of the joints, nothing more. Chronic rheumatic disease consists of a vast group of conditions, of widely varying causes, in which the most striking manifestation seems to be in the joints. An accurate appraisal of these factors and an adequate program of therapy chosen critically and wisely from the large store of therapeutic measures are necessary to successful treatment. Many patients presenting what appear to be rheumatic manifestations will be found

actually to have conditions quite different from arthritis. Some of these cases, incorrectly diagnosed arthritis, are presented here.

CASE REPORTS

CASE 1.—A young woman, age 32, had a progressive deformity diagnosed as arthritis. The condition had begun 8 years previously with painless bowing of the dorsal spine. Shortly afterward she developed pain in the right sacro-iliac region which acted like an infection of the joint. Pain in the hips and legs followed, with limitation of motion in the hips and muscular weakness. Codeine was required for relief of pain. The height became shortened, and within 5 years the patient was an invalid, nearly bedridden. She walked with a waddling gait. Spine was greatly distorted, with partial fixation of both hip joints. Pelvis was flattened and the sacrum markedly curved, so that the coccyx projected far forward into the pelvis. All other joints were free from involvement. Parathyroid hyperactivity was suspected. The symptoms suggested an osteomalacia rather than an arthritis, and this diagnosis was confirmed by laboratory data and roentgen ray. The roentgenograms showed the characteristic loss of density of all the bones rayed, destruction of the hip joints, and distortion of the spine. Sedimentation time normal. Examination of the neck region for evidence of parathyroid tumor showed none. Surgical exploration for parathyroid tumor or hyperplasia was advised.

CASE 2.—Woman, age 37, complained of agonizing pain over the left shoulder, the pain radiating down the arm to the fingers. The condition was present for 5 weeks. There were numbness and tingling in the fingers. Had been losing weight for some time despite a good appetite and had an exaggerated thirst and polyuria. The distribution of the pain indicated brachial neuritis rather than arthritis. There was marked glycosuria, and a blood sugar count of 235 mgm. per 100 c.c. of blood. The pain was so quickly relieved by control of the diabetes that one is justified in assuming that it was on a diabetic basis.

CASE 3.—Man, age 52, just returned from a course of treatment at Hot Springs, Ark., where he had been treated for arthritis. He had had mild pains in the shoulders for years previously, tonsillectomy giving great relief. Two years later he had pains and stiffness in the hands, and pains in the knees and ankles. There was no swelling, but the pain in all the joints of the extremities was increasing. Three months previously he had gone to Hot Springs, where he had 2 separate physical surveys, diagnosis being arthritis each time. He was placed on a diet, received a course of physical therapy, a series of prostatic massages, and vaccine. He thought he was improving, but before he left he had a relapse with increasing pains and stiffness in the extremities. Seen at home, he was tired and ill. He had lost some weight, complained of stiffness and pains in the extremities, marked weakness, and loss of appetite. Had a mask-like expression, the wrinkles of his face being largely obliterated. The skin over the face and neck, hands and feet, was smooth, of a leathery texture, and tightly adherent to the underlying structures. It could not be wrinkled. The fingers were in slight flexion, and further flexion was painful. They could not be extended. Limitation of motion of ankles. Remarkable absence of periarticular swelling about the joints. The appearance of the skin, its texture, and its adherence to the underlying structures left no doubt of the diagnosis of scleroderma. The joint manifestations appeared readily explainable on the basis of primary scleroderma, for secondary ef-

fects in joints are quite the rule in advanced forms of that disease. Ganglionectomy was considered, but since biopsy of the skin showed marked obliterative changes in its vessels, and the general condition was below par, operation was thought inadvisable. The condition progressed rapidly and relentlessly until the patient died of cardiorenal failure 4 months later.

CASE 4.—This case is odd in that one would not suspect a psychoneurosis masquerading in the guise of an arthritis. This patient was a young minister, age 26, who had pain in elbows, wrists, and knees, for a period of 2 months. No swelling, but there was a feeling of deep soreness, which was constant; motion did not aggravate the discomfort. Because of pains he could not concentrate on his work, was nervous, and could not sleep well. Had palpitation on exertion and when in the slightest nervous jam, but was rather reconciled to it. Was small, thin, and underdeveloped, not apprehensive, and showed an inordinate interest in his condition. The findings were normal. Laboratory data were all negative. Despite precarious economic conditions he ventured marriage several years ago, which led to a divorce. Shortly before the onset of his symptoms he was contemplating remarriage, and it seemed quite evident that his condition represented a subconscious flight from the responsibilities of marriage that he feared to assume again. Reassurance and psychotherapy, followed by a pleasant vacation away from home, led to a prompt cure.

While the diagnosis of arthritis is usually simple, there are many cases in which it must be differentiated from its counterfeits. Study of an arthritic patient must take a wide and comprehensive view and, in such manner, much may be hoped for in the arthritic patient.

Theodore O. Elterich read a paper on "Gonorrhea in the Child." Gonorrheal infection has an average of 15.3 per cent of its deaths in the group under age 20, with 3.8 per cent under age 1, 4.3 per cent under age 5, and 4.4 per cent under age 10. For the registration area of the United States in the years 1926 to 1928 it stood nineteenth in the list of communicable diseases for deaths under age 20.

The health of the child is imperiled in 2 ways—by ophthalmia neonatorum and prepubescent vulvovaginitis. Twenty and five-tenth per cent of the inmates of the Western Pennsylvania Institute for the Blind are there because of this disease. In 24 years the admissions to institutions in the United States for this cause of blindness have decreased 73.4 per cent, but still represent about 7.5 per cent of the total admissions. Two to 3 per cent of all blindness from birth is due to the gonococcus.

Vaginitis is common in girls of all ages, even infants. Epidemics were at one time the scourge of institutions, and they still occur. Day nurseries are a common agency for spreading the disease. There are institutions at the present time in which at least 30 per cent of the female population have or have had positive gonorrheal cultures. The spread is encouraged in schools, institutions, and playgrounds or similar places by the use of the toilet seat. The vulva is more protuberant in the child than in the adult, and infection of the front of the seat through contact is thus established, and the next user becomes infected. This can be minimized by the use of the U-shaped seat and low bowl. An insignificantly small percentage of these cases in children are venereal. Faulty sterilization of diapers, clothing, bed linen, thermometers, and other equipment, or uncleanness of the hands of the nurses are factors in spreading the disease.

The greater susceptibility of the vaginal mucosa in

the child has never been satisfactorily explained. The course of the disease is milder than in adults. It is thought by some that there are infantile and adult strains of the gonococcus.

Complications, though not common, were noted in 13.3 per cent of the series at the Allegheny General Hospital.

Placing these infected children in the proper institution is a problem very difficult and serious. Ophthalmic and vaginitis cases should be isolated.

The treatment of vulvovaginitis has always been discouraging. There must be the coöperation of a competent laboratory. Theelin intramuscularly has been suggested; this quickly inhibits discharge, which minimizes the spread of the infection. In 7 cases the author was able to obtain strongly positive cultures in 4 cases even after 3850 rat units had been administered, which is about 1000 rat units more than recommended as physiologic.

They have not had sufficient experience with corbue-Ferry gonococcus filtrate to venture an opinion.

GEORGE R. HARRIS, *Reporter*.

BERKS

Sept. 13, 1934

The meeting was held at 3:15 in Medical Hall, Reading, with President Ralph L. Hill presiding; 30 in attendance.

Francis Ashley Faught, chairman of the Commission on Medical Economics of the Philadelphia County Society, discussed "What Organization Means in Medicine." He said in part: The question of economics is quite broad and is passing through rapid phases of evolution. Unfortunately all parts of the state and the country are not keeping pace with this program. Even the Philadelphia Society has had its share of criticism for its past attitude in the matter of medical economics, although the committees have been carefully studying the subject, and have worked hard in their efforts to come to a real understanding of the details involved. The principal endeavor is to prevent legislation which will bring to this State the menace of socialized medicine, and also to make as many contacts as possible with those able to bring pressure in that direction.

The danger to the medical profession, as well as to the public health, is something which cannot be lightly overlooked, and his purpose was to present some facts and to stress the necessity for reading, studying, and discussing the subject of economics. There are various pathways along which efforts should be directed. The nurse is a valuable source of contact; talk with your druggist, and acquaint him with the menace of state control of medicine, not only from your standpoint, but from his own potential loss of business if your present status is altered by a change in the existing state laws; the clergyman is another valuable means of spreading the message. Interest the management of hospitals.

Read carefully what appears in the State JOURNAL on this subject. Rest assured that if you are to help prevent pernicious legislation which will affect you and all the allied medical agencies as well, you must enlist in the cause those mentioned. A very important effort is the matter of influence on your representative in the State Legislature, as well as on candidates who may be seeking that office. Arrange for talks to local and county lay organizations, for after all the doctor is most interested in public health, and this interest is very vital to every layman as well.

All will not have the same opinion on the subject of medical economics; but in this connection, "United we stand, divided we fall"; therefore, we should be a solid unit against the issue now in danger of being forced upon us. The situation is serious, and our opinions and expressions which are based on actual experience should be in support of our County, State, and National organizations in this fight.

Your library should have on file all publications bearing on today's subject, particularly the Quarterly of the Milbank Foundation and other similar organizations. If you are not yet aware of it, you will be surprised to learn of the power they wield and their financial backing. You will also be astonished to learn of the encroachment of lay workers in the medical profession; of the administration of anesthetics, *etc.*, by other than doctors; of the size and present influence of commercial laboratories; and the increase of dispensary abuse.

The importance of united efforts in doing everything in our power to prevent this obstacle to our present freedom of practice is paramount, and the preservation of our present ethics is most essential. There would be a grave danger to individual scientific advancement if socialization of medicine should become a fact in our State.

Oct. 9, 1934

The meeting was held at 3:15 in Medical Hall, Reading, President Ralph L. Hill presiding, with 35 present.

R. S. Dinsmore, of the Crile Clinic, Cleveland, gave "A Résumé of Thyroid Problems." The various types of goiter disturbance were illustrated. He suggested the use of thyroid extract for those affected with cretinism; a sufficient dosage is about 2 to 3 grains daily. Iodine is being used generally in preparation of the goiter patient for surgery; but he did not agree with any attempt to cure or control toxic goiter by prescribing this drug over a long period, explaining that its use was of value only postoperatively for no longer than a few days. Patients with cardiac disturbance sometimes are relieved by thyroidectomy. Cardiac irregularity is not always a contraindication to surgery if the patient is properly prepared. He stressed the importance of careful observation of all such patients, and the necessity for taking roentgenograms to rule out substernal goiter as a cause of chronic cough and bronchitis.

Nov. 13, 1934

The meeting was held at 3:15 in Medical Hall, Reading. President Ralph L. Hill presiding; 40 present. Henry H. Ritter, assistant professor of surgery, New York Post-Graduate Medical School, Columbia University, spoke on "Treatment of Knee Joint Injuries."

Dr. Ritter said in part: The knee joint is not only a hinge joint with to and fro movements but it also has a rotary sliding action. The joint is dependent upon the muscles and ligaments about the knee, as well as on the adjacent bony structure. This joint has the largest synovial membrane in the body.

Contusions and contusion sprains should be treated with heat and wet dressings. A lacerated ligament should be placed at rest, with a plaster cast or brace; if a lateral ligament is involved, no lateral mobility should be allowed, only flexion and extension. Lacerated wounds about the knee should be scrubbed with warm water and soap. Kerosene and benzine may be used to assist in the cleansing. Tincture iodine should be applied inside and about the wound. Inject iodine into a puncture wound with a hypodermic needle.

Prepatellar bursitis is rare. The first treatment is not excision. Aspirate and use a pressure bandage; then inject iodine. If unsuccessful, excise. For sprain of tendons inserted in and about the joint, if the pain is only on extension, rest at flexion; or, if severe only during flexion, rest at extension.

Synovitis may occur with effusion—serous, hemorrhagic, purulent, or any combination of these, or dry. Serous synovitis may be treated conservatively with a plaster cast, or a molded wooden splint, a rubber bandage, or strips of adhesive. Radical treatment consists of aspiration (aseptically), thorough scrubbing, sterile gloves, iodine application, and no-touch technic. The knee may be aspirated, and in the case of a football player, there may be an immediate return to the game, no immobilization being necessary. If more than 3 aspirations are required, there may be some other pathology. In case of hemorrhagic synovitis, inject 5 c.c. of ether into the joint. The knee will balloon, and the gas must be allowed to escape. Continue injections until the washings are free of blood and clots. Ether is not an irritant, providing the gas is allowed to escape. Staphylococcal synovitis should be injected and irrigated with ether 4 or 5 times. In streptococcal infection, incise on either side of patella into the joint cavity until the wound gapes. Do not use drains; wash with ether. Mechanical débridement may be done during the first 6 hours, not later; motion may be begun 3 or 4 days later.

A fracture of the condyle of the femur must be manipulated, treated, and supported by extension with wire through the tibia, below the tubercle. Fracture of the tibia into the joint requires open correction, rest, and traction with wire. In case of a telescoping fracture, open and replace parts.

PEARL E. HACKMAN, *Reporter*.

CHESTER

Nov. 20, 1934

The meeting was held at the Phoenixville Hospital. Luncheon was served. The Executive Committee recommended: That a letter be sent to Secretary of Labor Perkins at Washington suggesting the appointment of general practitioners on the Medical Advisory Committee to the President's Committee on Economic Security; the endorsement of John A. Farrell of West Chester for Secretary of Health of Pennsylvania; and reported favorably upon the efforts of William T. Sharpless in obtaining \$4000 from the County, making possible the Public Health Doctor. A committee of 3 physicians, appointed by the president, was suggested to carry out the program of the Public Health Doctor.

Robert T. Devereux told the results of his efforts in the Nutrition program, and reminded the society that many copies of his book, "Good Food at Low Cost," are available.

Samuel Lowenberg of the Jefferson Medical College reviewed the function of the various glands constituting the endocrine system. The general opinion is that the pineal body acts as a check to the various gonads. The thymus gland atrophies after age 3 and some of the complications which may arise from persistent enlargement of this gland were given. The relation between the anterior portion of the gland and sexual and growth development and the functions of the posterior portion of the gland were detailed. As to the thyroid gland, the syndrome of hyperthyroidism and exophthalmic goiter was outlined. The parathyroid gland and its relation to calcium metabolism was discussed and also the

various diseases attributable to parathyroid hormone disturbances. The relation of the pancreas to obesity was reviewed, a résumé of the action of the suprarenal glands given, and Addison's disease was discussed.

JOSEPH SCATTERGOOD, JR., *Reporter*.

CRAWFORD

Nov. 2, 1934

In its 2 most recent meetings, the society has attempted to obviate the unattractive meeting of late evening by having the business and program session at 5 p.m., followed by dinner. The November meeting, held at the Lafayette Hotel, Meadville, was well attended. Papers were read by Drs. Brenneman and Joseph R. Gingold on "Roentgen-ray and Radium Therapy."

Dec. 5, 1934

As many of the members live at Titusville, 30 miles from Meadville, this meeting was held at Titusville, at 5 p.m. Edward Steinberg of Erie gave a talk on "Common Skin Diseases." Thirty members and guests were present.

The following officers were elected for the year 1935: President, Carl M. Hazen, Titusville; 1st vice president, V. G. Hawkey, Meadville; 2nd vice president, John Bailey, Meadville; sec.-treas., Luther J. King, Meadville; and editor, Clifford W. Skinner, Meadville.

CLIFFORD W. SKINNER, *Reporter*.

DELAWARE (EASTER BRANCH)

Dec. 18, 1934

The meeting was held at the Llanerch Fire Hall, with President J. Evans Scheehle presiding.

John A. McKenna spoke on "The Origin of Medical Words."

AUGUSTUS H. CLAGETT, *Reporter*.

ERIE

Dec. 12, 1934

The meeting was held in the Hamot Hospital, with Roscoe Graham, of the University of Toronto, as the guest speaker. Frank B. Krimmel presided at the afternoon nonoperative surgical clinic conducted by Dr. Graham. The annual banquet of the society at the Erie Club, followed, and more than 100 attended.

Dr. Graham, in his dry clinic, discussed 4 cases, representing therapeutic as well as diagnostic problems; the probable diagnoses were chronic hyperthyroidism, chronic cholecystitis, duodenal ulcer, and aneurysm of the abdominal aorta. The cases were presented by Ford Eastman, F. B. Krimmel, J. T. Gillespie, and H. R. Rahner.

A patient more than age 40 rarely suffers from a new disease, unless that disease is a new growth, acute inflammation, or the result of an injury. A disability that brings a patient after age 40 began in most instances many years before; it is necessary to ferret out by a careful history these extremely important links in the chain which makes up the valuable case history. Cholelithiasis usually dates back to early life, and probably in 50 per cent dates back even into the childhood years.

In the thyroid case, extreme choking, like emotional instability, is an indication of sympathetic system imbalance, rather than of actual pressure upon the trachea.

There are few diseases in patients with a good appetite that still cause loss of weight; urinalysis eliminates diabetes.

A single massive hemorrhage from a duodenal ulcer does not justify a surgical procedure, but a second hemorrhage makes laparotomy necessary, since this latter type of patient usually has successive hemorrhages. Duodenal ulcer is less likely to give continuous abdominal distress than are chronic cholecystitis and appendicitis, and this feature is a valuable diagnostic aid.

RALPH BACON, *Reporter*.

FAYETTE

Oct. 4, 1934

The meeting was held at the Uniontown Hospital, President L. Dale Johnson presiding.

H. Ryerson Decker, Pittsburgh, read a paper on "Treatment of Pulmonary Infection," from a surgical point of view. He said in part: The scope of the surgeon has been widened in recent years in the field of thoracic disease. Even cases of tuberculosis of the chest and malignancy of the esophagus are being considered seriously from the surgical point of view. The causes of acute pneumonic suppurations are: Aspiration following tonsillar operations; embolism from upper abdominal operations; foreign bodies; trauma sepsis; pneumonia and mycosis, in the order of importance as to incidence.

All such patients are acutely ill with conditions simulating acute bronchitis or unresolved pneumonia with productive coughs, purulent sputum, odor, fever, malaise, and loss of weight. Tuberculosis may be suspected but repeated negative sputa should rule it out. The physical examination shows consolidation; a thickened pleura will modify the signs if present. There is nothing characteristic of the sputum except in tuberculosis. Leukocytosis is present. Roentgen-ray examination is apt to confuse this with tumor. Bronchography with lipiodol or air should be done, taking especially the anterior, posterior, oblique and lateral views. In aspiration of the fluid be careful that the fluid or pus is walled off by adhesions because of danger of spreading the process.

In making a differential diagnosis the fact should be considered that in tumor there is more dyspnea, pain, and a nonproductive cough.

The medical treatment of abscess is neither efficient nor deficient. Twenty per cent get well spontaneously without treatment. The abscess breaks through and is expectorated. Some die in the acute stages. The arsenical treatment recently tried is of no value. Posterial drainage for 10 minutes 2 or 3 times a day gives good results. Bronchoscopy does not always obtain results and is not very satisfactory, from 10 to 60 c.c. being the most pus obtained by this method. It is valuable in cases where a bronchus is blocked and the bronchoscope can be passed through. Treatment by this method is severe and if it fails the delay ruins the chances of the patient with the surgeon. Then, too, there is a risk of pneumonia and hemorrhage with fatal results. It is only a good diagnostic procedure.

External drainage is instituted for peripheral types. Multilobar abscesses may be reamed or burned out with a soldering iron. The cautery pneumonectomy of Gray is valueless and its mortality rate too high. Lobectomy is done in 1 or 2 stages. In exteriorization the lobe is brought out of the chest, tacked down and allowed to slough off. If bronchiectasis results from sup-

uration in a lobectomy, collapse by thoracoplasty or phrenic exeresis may be done.

The results from surgery are divided into 3 classes: Abscesses of recent origin, 70 per cent to 100 per cent, good; those with complications, 50 per cent, fair; and, old abscesses, poor.

RALPH L. COX, *Reporter*.

HUNTINGDON

Oct. 11, 1934

The meeting was held at the J. C. Blair Memorial Hospital, President Wm. T. Hunt presiding. Cloy G. Brumbaugh reported on the business transacted by the House of Delegates at the State Convention. Howard C. Frontz, Chas. R. Reiners, John M. Keichline, and Walter Orthner spoke on the section programs and other convention highlights.

Nov. 8, 1934

This meeting was held at the usual place with a program of case reports followed by a round-table discussion by nearly every one present. John S. Herkness reported a case of gangrenous appendicitis in which the symptoms simulated those of urethral colic, with very few symptoms suggestive of appendicitis. Walter Orthner reported a case of pyelitis cured by the use of pituitrin with no recurrence. Marshall B. Morgan presented a case of chronic tetanus infection with complete recovery. In the discussion of the latter it was stated that the wadding used in shells and blank cartridges contains raw animal hair, which should make the physician suspect any wound caused by such agents as being infected, and immediate injection of the antitoxin is recommended.

Dec. 13, 1934

Officers elected for 1935 are as follows: President, Paul Maxwell; vice-president, Wm. T. Hunt; secretary, John M. Keichline; treasurer, Chas. R. Reiners; censor for 3-year term, George A. Parker; district censor, Howard C. Frontz; delegate, Cloy G. Brumbaugh; alternates, Walter Orthner and Robert B. Campbell.

Wm. T. Hunt, the retiring president, presented in lieu of a retiring address, a paper on "Acute Throat Conditions."

The annual banquet will be held in January with the dentists and pharmacists of the county being invited to join the society on this occasion.

WALTER ORTHNER, *Reporter*.

LACKAWANNA

Nov. 20, 1934

At this meeting John L. Kanter, associate-in-medicine, Columbia University Medical School, New York City, discussed "Diarrheas."

Nov. 27, 1934

"A Review of the Field of Arthritis," was given by Ralph Pemberton, professor of medicine, Graduate School of Medicine of the University of Pennsylvania and chairman of the American Committee for the Control of Rheumatism. The speaker said in part:

Progress in the field of arthritis has been based on a very thorough study of the pathology and physiology of that condition. With such knowledge in the hands of the physician, untold suffering and pitiful deformity may be saved the arthritic. The history of spondylitis

deformans has been traced from the dinosaur through the sabre-toothed tiger to the ancient Egyptians and thence through every period to modern man. The condition is seen twice as often in women as in men, despite the fact that a history of constant exposure plays an important rôle in the etiology of the disease. It is most frequently seen between the ages of 36 to 40 in males and 41 to 50 in females.

The American Committee for the Control of Rheumatism has adopted the terms atrophic and hypertrophic to designate the 2 main forms of arthritis, although it is not absolutely certain that there are 2 wholly separate entities which constitute the whole field of arthritis. The pathology of arthritis has been a difficult chapter and this accounts in part for the inadequate therapy which so long has prevailed. Atrophic arthritis is generally seen in the first half of life and is characterized by a proliferation of the synovial membrane and of the perichondrium of the articular cavity. This proliferation spreads in the form of a pannus or fibrous film over the articular cartilage, which undergoes a slow destruction with exposure of the underlying bone. Granulations and adhesions form, finally producing fibrous union leading to a terminal bony union and ankylosis. Such a result must be prevented by voluntary motion followed by judicious use of physical therapy. The hypertrophic form is seen in the latter half of life. It is characterized by degeneration of the articular cartilage of the joint in the shape of a so-called fibrillation or splitting of the cartilaginous substance, more or less at right angles to the articular surface. This degeneration proceeds somewhat irregularly, and finally the bone itself becomes exposed at scattered points or over a larger area. As the bone becomes exposed it often undergoes erosion under pressure by the opposing articular surfaces. As these processes and overgrowths extend, the joint line, originally approximately straight, may become sinuous or may even assume the shape of an M or W with dentate projections or recessions. In addition, there usually takes place, independently, a hyperactivity of the perichondrium at the periphery of the joint at a point where capsule and cartilage come together. The activity results in an overgrowth of cartilage, generally within the capsule of the joint, which projects beyond the normal confines of the joint and may finally undergo transformation into bone. This process may and does take place in any involved joint, but is most characteristically seen in the phalanges of the hands, particularly the terminal phalanges, where the process gives rise to swellings and overgrowths as Heberden's nodes. The bone ends, denuded of cartilage, undergo friction and pressure and present a polished appearance known as eburnation. But beneath this hardened layer of bone, there usually is rarefaction and loss of calcareous material in the cancellous tissue. This condition of rarefaction may proceed to such an extent that under pressure from weight or other cause, the head of the bone may be compressed upon the neck or shaft, thus inducing shortening. This mushrooming with other bizarre configurations form the most striking and characteristic phenomena of hypertrophic arthritis as seen in most osseous specimens and roentgenograms. The importance of the nervous system in the production of arthritis should not be neglected. Charcot joints have been seen in syringomyelia and other conditions with cord lesions, other than syphilitic disease.

In the etiology of these conditions many factors have been mentioned, such as: Infectious disease, fatigue, exposure, faulty body mechanics, numerous organisms, defective peripheral circulation, heredity, and focal in-

fection. No one organism has been consistently isolated, but there is apparently some connection with strains of hemolytic streptococci. In a series of 400 cases reported, more patients recovered in spite of their foci of infection, 46 per cent, than did after removal of foci, while 23 per cent recovered without ever showing any demonstrable foci. After removal of definite foci, 8.5 per cent recovered, while in the entire group 77 per cent recovered, regardless of the means employed. Foci of infection should be removed but only in conformity with medical and surgical judgment. Many patients have been made worse because of routine operations further sapping their lowered vitality. Removal of foci must be considered as only one step in the treatment and one must always remember that foci of infection may result from arthritis, as well as play a part in its causation.

Careful hematologic and metabolic studies have been carried on for many years. The sedimentation rate shows a definite gradient in arthritis, but is not diagnostic. Agglutination tests show no specificity. A lowered basal metabolic rate is seen in 20 to 40 per cent of all arthritics, probably due to a disturbance in the peripheral blood flow. Surface temperatures of arthritics are lower than normal due to poor capillary circulation. Vasomotor activity is very circumscribed and so arthritics are more sensitive to atmospheric changes. As seen at the base of the nails under the microscope, the capillaries are constricted with very little sluggish blood flow. After massage, these capillaries are doubled in caliber and the flow is rapid. The hydrogen-ion concentration and carbon dioxide combining power of the blood are within normal limits and there is no suggestion of a systemic acidosis as has been frequently and erroneously believed. There is therefore no implication that the arthritic should be denied red meat; in fact, the condition of many arthritics has been made worse by denying them protein in the form of meat, in the belief that the disease process is thereby modified. Notwithstanding the gross disturbance of the calcium metabolism at the sites involved, the fasting blood shows no deviation in the calcium or phosphorous levels.

Avitaminosis and an unbalanced diet result in atrophy of the muscle fibers of the gastro-intestinal tract, as shown by Fletcher of Toronto. The colon is ballooned; there is ileocecal leakage and almost complete lack of haustral churning. The gallbladder shows enlargement with little change in diameter and a prolonged emptying time, thus sharing the lethargy of the gastro-intestinal tract. Drainage and culture of the bile shows nothing particularly notable. Water is stored whenever there is storage of carbohydrate, Adolph having shown that 3 to 5 grams of water are stored for every gram of carbohydrate. The low grade edema of arthritic joints is therefore improved by a low carbohydrate diet.

Treatment of this condition primarily follows a correct diagnosis of the type of arthritis involved. In atrophic arthritis, the patient often goes to bed, relieved by salicylates, and his semireclining position may result in a spondylitis deformans and a "poker-spine," the greatest reproach to the profession today. We must know the type of disease, we must insist on the proper régime and, above all, we must watch posture and position in bed, for in the near future lack of such care will be the basis for malpractice suits. No drug in the pharmacopeia has as much influence on the capillary bed as does correctly applied physical therapy. Few arthritics will recover without physical therapy, which includes massage, heat, active and passive motion, and systemic rest. Massage raises the red blood cell count

in the peripheral blood stream by 200-500,000 per c.c., and raises the oxygen capacity. General treatment may include: Rest—relieve fatigue; diet—correct faulty nutrition and elimination; improvement in peripheral and general circulation; physical therapy; prophylaxis; early correction of deformity; correction of body mechanics; thoughtful use of drugs, as a symptomatic rather than a curative procedure; look for and remove foci of infection, but only in conformity with sound medical and surgical judgment.

Of utmost importance is dietary therapy, as Fletcher has pointed out. This diet must be adequate; it must be of high vitamin content and fairly well balanced. However, Fletcher has found that a low carbohydrate and protein diet (perhaps 50 grams of each) with the caloric requirement made up in high fat foods (up to 250 grams) has marked effect on the atony of the colon associated with arthritis. The high vitamin requirement is satisfied by large amounts of brewer's yeast and cod-liver oil, providing vitamins A, B, D and G. Drugs are of secondary importance. Cure of pain is not through the use of salicylates but by the production of equilibrium in all of the great systems of the body. Sedatives are very valuable at the outset of treatment in order to gain the coöperation of the patient. Arsenic is one of the most useful drugs in the treatment of chronic arthritis because of its influence upon the hematopoietic centers and because of the betterment of the so-called general metabolism which it brings about. Strychnia induces a sense of well-being in the patient and helps him enter upon and maintain that advantageous cycle which rolls uphill instead of down. *Tinctura nucis vomica*, minims iii, t. i. d., is ample dosage. Wet dressings of magnesium sulphate and topical applications of various salicylate preparations which contain oil of wintergreen are of distinct value. In about 15 to 20 per cent of cases vaccines are of value; they should never be used as initial treatment and they seldom have any more value than the simplest medications. The one most important point to remember in arthritic therapy is that 70 per cent of all arthritics must be placed at complete mental and physical rest before any form of treatment can be successfully instituted.

Dec. 4, 1934

At this meeting Ashley W. Ougherson, associate professor of medicine at the Yale University School of Medicine, read an address on the "Surgical Treatment of Pulmonary Tuberculosis."

Dec. 11, 1934

The annual business meeting was held in the auditorium of the Chamber of Commerce building. President Walter W. Propst in the chair; about 200 were present. The society is in a very satisfactory position, financially.

A central rating agency for all charity cases handled by local hospitals is soon to be opened under the direct supervision of the Advisory Committee working with the Council of Social Welfare agencies.

During the past year, over 30 speakers of outstanding importance in the medical schools of the country were brought to Scranton to address the regular Tuesday evening scientific meetings, continuing the twenty-seventh year of postgraduate instruction fostered and supported without extra cost to its members by the Lackawanna County Medical Society.

The following officers were elected for 1935: President, Ray J. Garvey; 1st vice-president, E. R. Simpson; 2d vice-president, Emlyn T. Davies; secretary-treasurer, Charles E. Thomson, Jr.; secretary-reporter

and editor, Frederic B. Davies; librarian, Byron H. Jackson; trustee, W. T. Davis; censor, W. Rowland Davies.

FREDERIC B. DAVIES, *Reporter*.

LANCASTER

Nov. 7, 1934

The regular meeting was held in the Medical Club rooms, Lancaster. Brigadier General M. A. DeLaney, Medical Department, U. S. Army, gave an address on "What the United States Army Has Done for American Medicine."

In relating the history of the Medical Corps, General DeLaney stated that the original organization was begun in 1775, at the beginning of the Revolutionary War. General Joseph Warren, a physician, led the troops at Bunker Hill. The first surgeon general was Benjamin Church who was succeeded by John Morgan of Philadelphia. Morgan served in the Indian Wars, and became the first professor of medicine in the University of Pennsylvania. Then came William Shippen and Benjamin Rush, who later resigned to become first director of the Mint. President Washington's first Secretary of War was Dr. James McHenry, for whom Ft. McHenry was named. The next secretaries of war were William Eustis and Henry Dearborn, both physicians and both of whom served in the Revolutionary War. Three other medical men became commanders of the army following the war: St. Clair, Dearborn, and Wilkinson.

In the Civil War only two outstanding men can be mentioned: Surgeon General William A. Hammond and Johnathan Letterman. Hammond established the Army Medical Museum in Washington, the largest in the world. Letterman installed a method of evacuating the wounded from the battlefield which is now used by every army of the world.

Surgeon Leonard Wood in 1886 commanded a company with General Lawton against the Apache Indians, and was awarded the Medal of Honor for his success in the enterprise.

Colonel James R. Church, the surgeon general with Roosevelt's Rough Riders, received the Medal of Honor following his bravery at the battle of San Juan Hill.

Colonel John Shaw Billings of Pennsylvania established the Surgeon General's Library, and was its librarian for 30 years. He also started the Index Catalogue and Index Medicus, drew plans for the Johns Hopkins hospital in 1875, was professor of hygiene at the University of Pennsylvania, and was in charge of the New York City Public Library.

General George M. Sternberg became surgeon general in 1893. He discovered the pneumococcus. He established the Army Medical School, and also the Army Nurse Corps. He appointed the Medical Board to study yellow fever in Cuba in 1900, composed of Major Walter Reed, Drs. James Carroll, Jesse Lazear, and Aristides Agramonte.

Reed made his report to the Pan-American Congress in Havana in February, 1901, saying that the mosquito was the vector. Major Wm. C. Gorgas, Health Officer of Havana, at once put the recommendations of the Reed Board into effect, and rid Cuba of yellow fever for the first time in 300 years.

After the failure of the French to build the Panama Canal, the United States began the construction. General Gorgas became the Chief Health Officer. He not only had yellow fever to combat, but malaria as well. This he did by controlling the breeding places of the *Anopheles* mosquito, and treating patients with chronic

malaria. In 1901 the malarial incidence in the army was 281 per 1000. Today it is 6 per 1000.

General Gorgas became surgeon general in 1913, and served through the World War, before he was retired for age. He was asked by several governments to organize campaigns against yellow fever, and to establish health organizations. On his last mission he died in London, where he was knighted by King George, on his death bed.

It was through the efforts of General O'Reilly, another Pennsylvanian, that the Medical Reserve Corps law was enacted in 1908. It was due to his activities that the troops were vaccinated against typhoid fever when they were assembled in Texas, and not a single case of typhoid developed. This practice was also carried out during the World War, with the result that there were only 1535 cases during the entire period of the war. The Germans had 112,300, the Austrians 172,000, and the British 30,000. Vaccination was compulsory in the United States Army.

During the World War the personnel of the Medical Department and the Nursing Corps was increased from 600 medical men and 300 nurses to 35,000 medical men and 22,000 nurses. General DeLaney had command of a medical unit from the Pennsylvania Hospital during the early part of the war.

The first American wounded in the war was Lieutenant Genella, Medical Corps. The first killed was Lieutenant William T. Fitzsimons, Medical Corps, of the Harvard Hospital. The Army Tuberculosis Hospital in Denver is named for him. Of the 800 American nurses lent the British, one was the first nurse wounded in the war. Another Pennsylvanian, Dr. William J. McGregor, now coroner of Pittsburgh, lost both legs. The 550 army hospital beds in 1917 were increased to 403,000 by the time of the Armistice. This was the first war in history in which the deaths from disease did not exceed those from wounds.

Another great branch of the Army was initiated by a medical man of the Army—the Signal Corps. Brigadier General Albert J. Myer started this in 1860, and eventually became its chief. He also originated the Weather Bureau, which was later transferred to the Department of Agriculture in 1890. Fort Myer, across the Potomac from Washington, is named in his honor.

The work in the Philippines would fill a volume in itself. The largest leper colony in the world is on the Island of Culion, where 6000 are under treatment. Up to 1932, 2500 negative patients had been discharged and have again taken their places in the great scheme of life. Two million dollars have been donated as a memorial to General Leonard Wood, the late Governor General. It is known as the Leonard Wood Memorial Foundation for the Study and Cure of Leprosy. Mr. Eversly Childs of New York has erected a group of 53 buildings at Cebu, also in memory of General Wood.

The Army medical man has to deal with cholera, which is endemic in the Philippines; the Army has now a vaccine which gives very successful results.

The U. S. Army had until recently a board of army medical officers known as the Tropical Board. It has accomplished wonders. The Board found that the disease, beriberi, was caused by the lack of vitamin B. They found it almost impossible to get the people to use the unpolished rice which is needed to prevent the disease. The Board made another important discovery: it found that an alcoholic extract from the rice polishings would save a dying child ill of beriberi. This extract was called tikitiki, a Tagalog word. This material is issued free to the people.

Another serious problem in the Philippines is dysentery. The Board found the amebic form to be the most prevalent among our troops. The great complication of this form was liver abscess. Ipecac and emetine were found to be effective. Bacillary dysentery is still very prevalent, about 90 per cent of cases being of this form. There has been a polyvalent serum made for use in this form of the disease. In 1930, 1,500,000 people were vaccinated against the disease.

General DeLaney gave a brief history of the Carlisle (Pa.) Barracks. This Barracks was built in 1775, during the French and Indian Wars, and has been in use ever since. In 1863, it was burned by General Fitzhugh Lee on the way to the battle of Gettysburg. Only 2 buildings remained, one being the old Hessian Guardhouse built of stone by the Hessian prisoners captured at the Battle of Trenton, 1776. Carlisle is now the home of the Medical Field Service School, the only one of its kind in the world.

Officers belonging to the U. S. Regular Army, National Guard, and Organized Reserves, come to this school from all parts of the Union. The state of Pennsylvania had 30 medical officers graduated there last July. The young medical officer is taught how to conduct himself as an officer, handle and train his men, and how to prevent sickness in the Army, whether the troops are in the field or in the post. There are other classes besides the Basic Class, *viz.*: The Advanced Class, the Noncommissioned Officers' Class, the Health Officers' Class, National Guard Class, and in the summer the Reserve Officers' Class, the R. O. T. C., and numerous other classes of instruction. There is also stationed at the Post the 1st Medical Regiment, a unit that had war experience with the 1st Division overseas, and since it has been stationed at the Post, it has become one of the finest units in the Army today.

General DeLaney extends an invitation to all to visit the Barracks, and especially to see the parade on Thursdays at 5:00 p. m., weather permitting.

Dec. 5, 1934

The meeting was held in the Auditorium of the Y. W. C. A. Paul White gave the scientific paper of the evening, presenting his material in the form of case reports.

CASE 1.—Housewife, age 30. Quinsy $3\frac{1}{2}$ years previously. For $2\frac{1}{2}$ years has had swelling of the feet with dyspnea and palpitation. For 1 year the swelling has been so severe that the abdomen has been involved. There have been 2 deaths from tuberculosis in the family. Most of the laboratory tests were negative.

Physical examination showed a jugular pulse in the neck. The heart was normal in size, tones good, and lungs were clear. Liver enlarged, not tender. Ascites present. Edema of abdominal wall and over sacrum and in lower extremities. No clubbing of fingers. Blood pressure 105/70. E. K. G. shows low voltage in all leads, all waves upright. Fluoroscopic examination showed the heart to be of normal size, and in the upright view there was noted an adhesion to the left dome of the diaphragm. A diagnosis of Pick's disease (constrictive mediastinal pericarditis) was made.

The fourth, fifth, and sixth costocartilages were removed surgically. The pericardium, especially on the right side, was abnormal, being $1\frac{1}{2}$ inches thick in places. One pocket of fluid was found, no tubercles seen, but there was marked constriction of the inferior vena cava. In 2 weeks she was edema-free and perfectly well.

Pericardial decortication is indicated in many cases of Pick's disease. The case reported here is one of 5 cures Dr. White has had.

CASE 2.—Lawyer, male, age 56. Has had appendicitis with phlebitis. An intense worker under heavy strain. Had an attack of sudden pressure with pain in left substernal region with some dyspnea, restless, uncomfortable, and had slight fever and leukocytosis for a few days. Attack was repeated in 1 week, more severe, with only partial relief from morphia. Developed a friction rub to left of sternum, gallop rhythm, some cyanosis, and pulsation of the cervical veins, in a severe spell 3 days later. He was clear mentally. The first sound was poor; the second accentuated. Slight systolic murmur in pulmonic area. Pulse 96, temperature 100.4° F., and blood pressure 100/80. No clubbing. Liver questionably enlarged. Some spasm in upper abdomen. Pleural friction in left axilla. E. K. G., normal rhythm. Slight left axis deviation. Some inversion of T-wave, but not characteristic.

The diagnosis at first was coronary thrombosis, but later was changed to acute coronary pulmonale, dependent on pulmonary embolism. Usually the dyspnea is greater than the pain in pulmonary embolism, but occasionally the pain simulates coronary thrombosis. Usually in the former there is a history of recent surgery or injury. The cardiac symptoms are dependent on an enlarged right ventricle due to pulmonary embarrassment. Occasionally pulmonary embolectomy can be tried, but none have been successful in America to date.

CASE 3.—Physician, male, age 56. Past history, appendectomy and an operation on knee. Had hypertension for a few years. No chest pain or dyspnea. Overweight.

Had an attack of severe substernal pain radiating to neck, back, and left upper jaw. Pain very severe. Was very ill, but drove car home after having a stimulant (brandy). The pain lasted 5 hours; required morphia. Blood pressure 140/80 after attack. Arterial pulse seen in neck. Heart moderately enlarged. Sounds were good. Moderately loud systolic murmur at apex. Rhythm normal. Lungs clear. Abdomen negative. No edema. Dorsalis pedis palpable. Temperature 100. Leukocytes 18,000. Diagnosis — dissecting aortic aneurysm. Patient died.

E. K. G. suggested occlusion of right coronary artery. Necropsy showed the heart to weigh 500 gms.; no syphilis; no infarction; no coronary occlusion; valves normal; pericardium filled with blood. There was a tear 2 centimeters above the aortic valves with dissection of the aorta from one end to the other. It did involve the right coronary artery.

The media is the coat which dissects. The signs are dependent on obstruction of the circulation supplied by the arteries coming off the aorta. Three out of 4 die in the acute stage; in coronary thrombosis 3 out of 4 get well in the immediate attack.

CASE 4.—Surgeon, male, age 62. Had chorea as child. Developed cardiac consciousness and increasing fatigue several months before death. Vomited, got dizzy, and perspired by spells. No paralysis. Slight substernal pain on walking.

The patient was pale, with heart moderately enlarged. Loud, harsh systolic murmur heard all over precordium (this was not present 16 years previously). Abdomen normal. No edema. Pulse 72. Blood pressure 155/100. E. K. G. showed inverted T in all leads.

The patient finally developed dyspnea at rest, following a respiratory infection. He was digitalized with

benefit for a few weeks, but developed a distinct systolic thrill at base of heart. Had several attacks of dyspnea at night, and became weaker. Edema responded for a time to salyrgan. Roentgen ray showed heart enlarged with widened aorta, but no saccular aneurysm.

At necropsy the heart weighed 850 grams. There was aortic stenosis with calcareous deposits. Both ventricles were enlarged. No coronary disease. Mitral valve normal. The etiology is unknown in this case. It may have been the chorea. Septic sore throat is frequently the cause. Diagnosis—*aortic stenosis*.

CASE 5.—Female, age 26. History of influenza, and rheumatic fever. Had an appendectomy at age 23, at which time it was learned that she had heart disease. Gradually developed symptoms of cough, dyspnea, wheeze, and pain in left chest for one-half to 1 hour in the night. These spells came on more often after a heavy day's work, and occasionally were preceded by acute tachycardia. The heart was enlarged, especially along the left upper border. Rhythm normal, rate 90; pulse normal; blood pressure 120/70. Abdomen negative. No edema. E. K. G.—normal rhythm, large p waves, slight right axis deviation, low voltage. Roentgen ray of chest showed left auricle and left ventricle enlarged.

Acute dyspnea, especially at night, usually depends on enlargement of the left ventricle from hypertrophy, aortic valve disease, or coronary thrombosis. It was considered that the attacks in this case were dependent on tachycardia. If heart failure is not the cause of this pulmonary edema, as a rule tachycardia is responsible.

This patient was helped by quinidine. Digitalis was also used. It may be good if it reduces the pulse, but often morphia is better, with the patient maintained in the upright position during attack.

CASE 6.—Female, age 63. Known to have hypertension for years. Blood pressure 200/120. Acute dyspnea with asthma in the night. Lungs full of moist râles. Some cyanosis. Pulmonic second sound was greater than the aortic second notwithstanding elevated blood pressure. E. K. G. showed auricular fibrillation. Salyrgan is indicated in this type of case even when there is no dependent edema.

WILHELMINA S. SCOTT, *Reporter*.

LAWRENCE

Dec. 6, 1934

The meeting was held in the Castleton Hotel, New Castle, at 8:30 p. m., President J. D. Crawford in the chair and 41 members present.

The program consisted of the presentation and discussion by J. M. Blackwood, chairman of the Committee on Public Policy, of the following resolutions, which were adopted by the society.

1. We disapprove of all forms of compulsory health insurance not only as detrimental to the best interests of the medical profession but also as working hardship on the public involved. To offset any actually threatening legislation for health insurance we endorse the 10 points adopted at the Cleveland session of the A. M. A.

2. We vigorously protest all encroachments of the state in the practice of medicine. The present clinics established by the state should be under the direction of physicians in good standing in our local medical society. No physician not a member of the county society should conduct or supervise any clinic except at the re-

quest and permission of the local society. We are strenuously opposed to the benefits of these several existing clinics being given to any but the indigent. Any one able to pay a minimum fee should be excluded.

3. We petition the Secretary of Health to appoint as local Director of Health one who is in good standing in the County Society.

4. We will take no part in the proposed plan of Child Health Examination, as the family physician never refuses to treat such cases when presented. Establishment of such a plan may eventually lead to another state clinic.

5. We urge the medical representatives appointed on the Emergency Relief Committee, both state and local, to keep in mind that the physician is the underpaid employee and his remuneration should be assured. We decry the cutting of medical fees when others employed by the relief receive their full salaries.

6. We vigorously support the Lawrence County Health Legislative Conference in every effort to combat legislation unfavorable to the various health agencies.

7. That we urge our members to prepare themselves to give addresses and demonstrations before the several civic clubs in the subjects of health, hygiene, life-saving, etc., in order that these important subjects may not be usurped by others than physicians.

8. These resolutions shall be published in *The Bulletin* of the Lawrence County Medical Society.

Dr. Blackwood also reported that a Public Health Legislative Conference had been organized consisting of 2 representatives from the medical, dental, druggists' and nurses' societies, and also from the Woman's Auxiliary and the superintendents of the local hospitals. This committee has interviewed all of the local members of the State Legislature and they have promised to confer with the conference on any proposed legislation.

The project of a postgraduate seminar as proposed by the State Society was introduced and a committee was appointed to make provisions for the seminar.

A motion was carried that the usual custom be observed of presenting a subscription for *Hygeia* to the three high schools and the free public library.

W. A. WOMER, *Reporter*.

LEHIGH

Nov. 13, 1934

The meeting was held at the Hotel Allen, Allentown. Frank Boyer presided at the business session. A stag dinner followed, at which President Moses Behrend of the State Medical Society gave an address on "Medical Economics."

VAUGHAN SPRENKEL, *Reporter*.

LUZERNE

Nov. 21, 1934

The meeting was held in the Medical Building, Wilkes-Barre. President E. W. Bixby, presiding; 124 were present. E. V. Matys, Avoca, and J. R. Nealon were elected to membership.

R. B. Cattell, of the Lahey Clinic, Boston, addressed the society on "The Diagnosis and Management of Goiter." He gave their method of approach in the treatment of goiter cases, what the thyroid is and how it works.

There is only one thyroid cell which has any function of value; the rest are supporting cells. The thyroid cell is capable of doing only a few things and under

stimulus there is hypertrophy or hyperplasia. It may return to normal as with the use of iodine or go on to atrophy.

Confusion in the classification of thyroid disorders exists. Some classifications are pathologic, others clinical, etc. A simple, working one will follow.

1. *The colloid or adolescent goiter*. This is present between the ages of 11 and 15; is a hyperplasia or hypertrophy of the thyroid cells due to deficiency of iodine intake; does not usually require therapy; and can be prevented by the use of iodine. In Akron and Cleveland not over 10 milligrams of iodine are given weekly. Actual treatment is less effective. Small doses of iodine may reduce the goiter, but usually no result is obtained. The best treatment is prophylactic. A small dose of iodine is given once weekly for two phases in the year. If the goiter attains a great size, then operation is indicated. If they persist, many form the adenomatous type.

2. *Discreet adenomata*. These are asymmetrical, single, usually having a capsule, and may have a fetal type of tissue present. It may look like a malignant tumor and yet is not one. The treatment is removal, irrespective of its size and age of the patient. Nearly all the malignant ones are in this group; hence early removal is indicated. Other reasons for removal are the pressure effects, as these are so often intrathoracic. Many develop hyperthyroidism. The treatment consists in a subtotal thyroid operation regardless of the mildness of the hyperthyroid symptoms. Six per cent of 1040 cases showed blood vessel invasion or first-grade malignancy. This is shown in the tumor mass. In endemic goiter regions nodules are found throughout the gland. Enlargement of the superficial veins of the chest is pathognomonic of intrathoracic tumors.

3. *The large endemic goiter*. Roentgen ray is of value in all goiter cases both of the lateral and antero-posterior positions. A determination of the amount of pressure on the trachea or its dislocation is thus ascertained.

4. *Lateral aberrant thyroids*. In their cases 20 per cent were found. This type is malignant, may be discreet and involve the cervical glands. The origin is from the lateral pouches of the thyroid. Radical operation followed by roentgen-ray therapy is imperative. These are similar to the papillomata of the ovary and breast.

5. *Hyperthyroids*. The symptoms consist of exophthalmos, nervousness, easy perspiration, enlargement of the neck, with the greatest enlargement at the superior pole. Examine the patient by putting the chin aside, have the patient swallow, and palpate the different poles of the gland. The size of the isthmus is ascertained by pressure of the thumb. Many have amenorrhea or other signs of menstrual disorder. There is also weight loss and unusual weakness. They feel well but their activity is limited.

Hypertrophy is seen in children, 55 to 60 cases being under age 15. There was one child in their series age 2 years and 11 months. The treatment is conservative. Children stand operation poorly and must have enough thyroid left to give proper function later. The operation is done in 2 stages. They had one death in 55 operations. There was recurrence twice in one patient with an operation at ages 15, 17, and 19.

Hypertrophy in the aged shows marked weight loss usually and increased metabolism. One patient was over age 70. Operations are done in 2 stages.

The thyrocardiac cases show firm, moderate enlargement of the thyroid gland with pulsations of veins of

the neck, and are poor risks. They are sent to the hospital, given sedatives the first night, with nothing by mouth after midnight, and the basal metabolism test is done in the morning. Lugol's solution 10 minims is given 3 times daily for many days, with a high caloric diet. After one week a second basal metabolism test is done. These cases are all treated medically until operation is believed quite safe. If edema is present, use diuretics and digitalis, but the irregularity of the heart is no contraindication to operation. Quinidine may be of some value in establishing regularity of the heart. Examination of the blood for cholesterol is indicated. The normal finding is between 170 and 190.

Exophthalmos usually disappears within 3 months after operation. Roentgen-ray therapy is given over the orbits as there is danger of loss of the eyes from infection from the inability to close the eyelids.

In discussion, Dr. Kocyan asked if pregnancy would be a contraindication to operation in goiter cases; Dr. Cattanach asked what is the dosage and length of time of use of Lugol's solution postoperatively; Dr. Harold Foss, Danville, said that the metabolism test is the only one of aid and much harm has been done by them. Many patients have been operated upon by the aid of only one test and it is much preferred to use the last of three breathings in the serious cases. They must be carried on absolute rest, no food, *etc.* Nothing is known of the etiology of goiter. Dr. Cattell, in closing, said that subtotal thyroidectomy can be done up to the eighth month of pregnancy and no premature births or miscarriages will occur. In the thyroid crises iodine is given 60 to 120 minims daily, forced fluids, glucose up to 600 grams daily, sedatives to the point of 12 or fewer respirations per minute. The oxygen tent is of value. Postoperatively, Lugol's solution can be given up to 6 weeks if the first stage has been done. Total thyroid operations have been done in heart disease. In Berlin 130 cases were reported. The Lahey Clinic has done 30 cases, but have discontinued doing them as so little benefit was obtained for congestive heart failure. In angina pectoris some relief is obtained.

MARJORIE E. REED, *Reporter.*

LUZERNE (HAZLETON BRANCH)

Dec. 12, 1934

The meeting was held at the Elks' Home in Hazleton. Benjamin Robinson, of the Philadelphia General Hospital Heart Station, was the guest speaker. Dr. Robinson demonstrated fresh pathologic specimens from interesting cases recently seen at necropsy. The rarer and most interesting cases demonstrated included: Congenital multiple telangiectasia, aneurysm of the abdominal aorta, dissecting nonsyphilitic aneurysm, tuberculosis of the larynx in a site generally occupied by cancer, bacterial valvulitis, iliac thrombosis, carcinoma of the head of the femur, and tuberculosis causing edema of the leg.

Dr. Robinson reviewed the case histories and made the following remarks, which are considered especially noteworthy: Syphilis is generally considered the only cause of aneurysms. Dissecting aneurysm, when the coats of the artery are split, may also arise from atheromatous ulcer. Thrombosis or rupture of vasa vasorum with splitting of the walls of the aorta may also cause dissecting aneurysm. Roentgen-ray findings are valuable in diagnosing aneurysm. Lateral and sometimes oblique views of the lumbar vertebræ may be necessary to show erosion, and confirm a suspected diagnosis of abdominal aorta. The Wassermann test is not reliable in many of these cases, and it should not influence the diagnosis

one way or the other. Physical signs should be the best means of diagnosis. A great deal of experience in the necropsy room is required, however, before skill is acquired in physical diagnosis. Cardiovascular syphilis may be activated by trauma or meddlesome therapy.

This last remark provoked the following discussion: R. A. Gaughan asked, "Is it your opinion that trauma must be over the skull or spinal column to light up central nervous system syphilis? Might trauma to another part light it up?" J. M. Dyson asked, "Do you feel that trauma such as ankle sprain could aggravate or light up cardiovascular syphilis?" Dr. Robinson replied that trauma to any part of the body can make florid central nervous or vascular syphilis which had been latent previously.

Dominic D'Angelo described a case of dissecting aneurysm found at necropsy. He asked the speaker's opinion as to whether such a condition might have been caused, or not, by a fall from a roof which the patient sustained several months earlier. Dr. Robinson stated that he would hesitate very much to give trauma as a cause of dissecting aneurysm, but that trauma might cause rupture of the aorta, or might bring on rupture or dissection in an aorta already diseased.

In conclusion, Dr. Robinson remarked, regarding valvulitis, that it is important to look for valvulitis and remember its relationship to hemiplegia and other cerebral embolic conditions. It must also be remembered that mitral stenosis may give rise to cerebral embolism when clots in the left ventricle form, and are subsequently dislodged.

JOHN M. DYSON, *Reporter.*

LYCOMING

Oct. 12, 1934

The semi-annual home talent meeting was held at 1:45 p.m., Warren Shuman in the chair.

Marshall T. West read a paper, illustrated by himself, on "What We Have to Offer the Prostatic Today." One of the greatest steps forward in the treatment of prostatism has been in the preoperative preparation of the patients, among which the following are the most important contributions: Cystoscopic study, improved anesthesia, proper decompression of the urinary system, and the giving of large quantities of fluids.

Pathologically there are 3 general types of prostatic enlargement: Hypertrophy, in which the glandular tissue predominates; sclerotic, in which fibrous tissue predominates; and carcinoma, which usually occurs in that portion of the prostate posterior to the ejaculatory ducts.

Classified clinically: (a) Those of gradual onset, with symptoms that are gradually accumulative and progressive, moving on to complete obstruction. The median bar or enlarged median lobe is the usual site of involvement. (b) Those with a succession of attacks of more or less obstruction, with periods of well-being between. Such patients may suffer acute obstruction from chilling, over-eating, over-drinking, *etc.* Here the lateral lobe is enlarged. (c) Any combination of the above 2.

It is not so much the size of the lesion as its location. The enlargement of the median lobe is the worst, resulting in compensatory hypertrophy of the bladder wall and trigone. The residual urine increases as the bladder loses its tone. Catheterization once begun must usually be continued. Infection sooner or later occurs. In many cases the catheter must be abandoned because of increasing difficulty of introduction, and of pain. Kidney insufficiency gradually increases. Cystitis and pyelonephritis often add to the troubles. Contractions and bars are a result frequently of former inflammation.

Treatment: This resolves itself into 3 main stages: Preoperative preparation; operative; and after-treatment. The first thing to be done is to relieve the distended bladder, by intermittent catheterization, indwelling catheters, or suprapubic cystotomy, as the case may demand. Decompression must not be done too rapidly. Dr. West uses a counterbalance pressure apparatus consisting of a column of medicated liquid connected to the catheter with a Y-shaped tube in such a way that the urine escapes under whatever pressure the column of liquid produces. This is gradually lowered, allowing more bladder escape as the decompression continues. The blood urea nitrogen and phenolsulphonethylamine tests are made and blood pressure studied at intervals. Digitalis is used if necessary, the bowels are freely moved, and a bland diet is furnished and sedatives for sleep. The catheter is changed every third day after cleansing the urethra. No. 14 to 16 F. is the best. If the catheter drainage is not feasible, suprapubic cystotomy is done under local anesthesia and a mushroom catheter inserted.

During the preoperative program cystoscopy can be done and cystograms can be made to determine the presence of diverticula or encysted stone. The type of enlargement is thus determined. When the cardiorenal balance is established operation can be done; if not established, the patient may be dismissed for a time and in some instances permanently. The adenomata are quite amenable to suprapubic removal.

Contractures or bars as well as carcinoma are best treated with some sort of punch operation or electric loop. Young's perineal prostatectomy is too radical for untrained operators.

Low spinal anesthesia consisting of 100 mg. of novocaine in 2 c.c. of spinal fluid is ideal.

The after-care is a continuation of the foregoing. Prostatic surgery is still in a state of flux. The mortality following prostatectomy is from 3 to 5 per cent. The transurethral procedure has the advantage of shorter hospitalization, is less radical, and the patient can return later for additional work if necessary. McCarthy claims that from 80 to 90 per cent of cases can be handled this way. It is, however, not a minor office procedure. The same preoperative study and preparation must be made. The postoperative supervision must be even more careful than in prostatectomy, and the nursing staff must be more alert. The novice had better not attempt it. Those who do this work should start with the smaller types of enlargement and should be well acquainted with the normal case. Prostatic cases should be constantly impressed with the danger of delay. We can now offer the prostatic accurate diagnosis, local and general; conservation of the vital forces before operation; the type of operation best suited to the case and shorter hospital domicile.

In resecting a bar with the resectoscope be careful not to go too far forward as to injure the external sphincter or the verumontanum, which will result in incontinence.

J. Gibson Logue discussed "Immunization of Children Against Scarlet Fever." He has done more than 900 immunizations and has Dick-tested more than 200. There is a great deal of confusion among the profession and considerable unwarranted antagonism to an immunization program. While there may be some truth in the fact that the administration of scarlet fever antitoxin therapeutically is followed by severe reaction, the same feeling should not exist regarding the use of scarlet fever toxin prophylactically. The latter is not a serum but an aqueous solution of scarlet fever toxin.

He reviewed the figures of Gladys Dick which are so large as to be comprehensive and beyond dispute. In 24,000 cases with a negative Dick test no scarlet fever developed. In 4000 nurses and interns with a negative Dick test and who were intimately exposed, there were no cases. Of 13,000 cases immunized no damage resulted to any. Ten per cent of cases immunized developed reactions which were not dangerous. Five doses at weekly intervals immunized 96 per cent of those susceptible; 90 per cent of these were immune after 5 years, and 5 per cent required a second course. No case thus treated has ever shown scarlet fever. No school or institution need ever have an epidemic. An epidemic can be stamped out by following this procedure.

Before immunizing children the Dick test should always be given for 3 out of 10 are naturally immune. It differs with diphtheria in that nearly every one is susceptible to the latter disease. Under age 2 there are many false negative Dick tests; hence it is better to do a Dick test after age 2.

Technic of injection: No alcohol should be in any part of the outfit as alcohol kills the toxin. One-tenth c.c. is injected intradermally but not too superficially, a little deeper than for the Schick test. Read the test in 22 to 24 hours. A positive Dick test is any degree of pinkness or redness 10 mm. in diameter. Starting with 500 skin-test doses for the first dose it is gradually increased to 8000 skin-test doses. The injections are given at weekly intervals for 5 weeks. To minimize reactions add $\frac{1}{10}$ to $\frac{2}{10}$ c.c. of a 1:1000 adrenalin solution to constrict the blood vessels and reduce absorption. After the fifth dose wait 3 weeks and do another Dick test. If the Dick test is negative the patient is immune and probably will remain so for at least 7 years and probably a great deal longer. This brings the patient to approximately age 11. About three-fourths of the cases of scarlet fever are under age 10. If the Dick test is positive repeat the fifth dose and wait 3 weeks; the test then usually will be negative. If still positive or partially positive, the same dose is to be repeated. Scarlet fever does not always confer immunity.

George Schneider gave a demonstration with the Burdick sun lamp, of fluorescein as a diagnostic aid in the diagnosis of various tissue abnormalities, and read a paper describing the usefulness of such a test.

Charles Lehman discussed "Atelectasis of the Newborn." He said in part that many of these cases formerly were called pneumonia and cerebral hemorrhage. He detailed 3 deaths in the newborn on his service at the Williamsport Hospital that were proven at necropsy to have been given the wrong diagnosis. One was a case of congenital heart disease, one a case of congenital atresia of the duodenum, and one a case of atelectasis.

In the premature, where respirations are poor and feeble and where the permeability of the capillaries or the interchange of gasses is poor, atelectasis is common. **Treatment:** The premature infant should be cared for by a specially trained personnel. The body heat should be maintained by external heat and the nutritional requirements should be maintained—a difficult phase of the subject. Breast milk is the best but it frequently is soon exhausted due to artificial methods of collection. As the feeding should be done with a tube or a dropper, there is always danger of asphyxia and aspiration pneumonia. Secondary atelectasis may appear days after birth. Treatment should be begun at any time as soon as breathing seems abnormal. Oxygen should be given by catheter into the esophagus. Feeding then may be

given by tube and dropper. In the markedly premature the milk may have to be boiled down to concentrate it so as to give nutriment in small bulk.

L. M. HOFFMAN, *Reporter.*

MONTOUR

Oct. 19, 1934

The meeting was held at the Geisinger Hospital, Danville, at 8:30 p.m., L. P. Fowle presiding.

A letter was read from Chairman W. H. Mayer, State Society Committee on Public Relations, concerning the 1934 Pennsylvania Public Health Day. The question was raised as to whether or not such a meeting should be held. It was approved that this subject be referred to the County Society Public Relations Committee.

Benjamin Schneider was proposed for membership.

The scientific program was a medical clinic presented by C. E. Ervin and his associates.

R. W. Andrews presented a case problem in the diagnosis of vascular disease. Two years ago the patient had been treated with typhoid vaccine intravenously, and showed marked improvement for some time but the symptoms returned in February, 1934. Now suffers from pain in the joints, cyanosis of the fingers, hands, toes, and feet. At the present time he is being treated with intramuscular injections of sterile milk, to be followed later by intravenous typhoid vaccine. Diagnosis—polyarthrititis and Reynaud's disease.

A cardiac case problem was presented by G. W. Logan. The patient was a young, underweight, adult female. Symptoms began at age 8, with shortness of breath, swelling of the feet, fainting attacks, and dizziness. The thyroid was enlarged, the heart sounds of poor quality, but no murmurs. Basal metabolism was -4. The symptoms were more marked when the pulse rate was slow. Pressure over the carotid produced some dyspnea and slowing of the pulse. There was a pulse deficit. The heart rate was quite irregular. Hemoglobin was 50 per cent and there were 3,400,000 red cells. Diagnosis—cardiac neurosis. Treatment—psychotherapy and insulin.

A dermatologic case problem was also presented by Dr. Logan, the patient a female, age 16, weighing 175 pounds. The chief complaint was a skin eruption on the face, present since age 1, which had gradually spread to other parts of the body. There was severe itching in warm weather. Diagnosis—chronic eczema, and probably a mixture of an acute dermatitis with a fungus infection. Treatment—restriction of carbohydrates, thyroid extract internally, and ammoniated mercury externally.

C. W. Ashley presented a male, age 58. Two years ago he had attacks of precordial pain and dyspnea. There was some fibrillation. Blood pressure at that time was 170/100. These symptoms abated and returned one month ago. Blood pressure now 180/105. Red blood cells, 2,400,000 with an incomparable hemoglobin. Gastric analysis showed no free hydrochloric acid and a low total acid. There was some bleeding from the anus. Electrocardiogram showed a left bundle branch block. Gastro-intestinal examination by roentgen ray was negative. Rectal examination revealed a large mass of hemorrhoids, which bled easily. They have been excised. Diagnosis—partial heart block, secondary anemia. Treatment—transfusion, iron and ammonium citrate, liver extract, and dilute hydrochloric acid.

Nov. 16, 1934

The meeting was held at the Danville State Hospital at 8:25 p.m., H. C. Brown presiding.

Two proposals for membership were presented: Benjamin Schneider and Joseph Roosevelt Bierman.

R. R. Hays gave a brief discussion of "Multiple Sclerosis." Contrary to the statements in most textbooks multiple sclerosis is quite common, ranking next to syphilis, and third in the order of frequency of organic affections of the nervous system. Charcot's triad of symptoms, of nystagmus, spastic paralysis, and scanning speech are not characteristic of the disease, being symptoms of cerebellar disease. The disease is particularly common in the region of the Great Lakes. It occurs most frequently in males between ages of 20 and 40, and is more common in workers in wood and soil. The earliest symptoms, transient diplopia, dizziness and tingling, are rarely noticed by the patient. Excitement, childbirth, ether or chloroform anesthesia, influenza or other disease may precipitate the symptoms rather suddenly. The clinical features are protean, the commonest being: nystagmus, scanning speech, intention tremor, spastic paralysis, cramps and muscle twitching, especially at night, hyperesthesia, paraesthesia, loss of abdominal reflexes, loss of vibratory sense, astereognosis, loss of sense of position, and there may be cranial nerve involvement, that of the seventh being the most common. Four per cent show psychotic changes. The spinal fluid will give a paretic colloidal gold curve occasionally with a negative Wassermann. Pathologically there are gray patches of varying size in the cerebrum, basal ganglia, cerebellar nuclei, and spinal cord, usually symmetrically placed. Microscopically these areas show demyelination with replacement by fibrous tissue. The course is one of remissions and exacerbations with a very poor outlook. No treatment has been found to be of much avail. Nonspecific protein shock and electrical stimulation are used. An illustrative case was presented.

A case of cerebral gumma was presented by J. A. Cammarata. This is the rarest type of neurosyphilid. It behaves like brain tumor, usually occurs at the base, arising in the meninges and produces a place-taking tumor. The lesions may be multiple. The diagnosis is first that of tumor, and then the task of establishing the syphilitic nature of the tumor is necessary. The case presented was a male, age 27, who had a history of a chancre 2 years ago, which was followed by energetic antisyphilitic treatment. Apparently well until 10 weeks ago. At the onset had frontal headache which did not respond to any of the usual methods of treatment. This gradually increased in intensity, was attended by transient attacks of blurring of vision, sense of retrobulbar pressure, numbness of the left side of the face, and a gradually increasing weakness of the left arm. On admission was tossing about and screaming with great pain in the head. There was marked weakness of the left hand and arm, slow pulse, slightly subnormal temperature. Had papilledema. The reflexes were increased 3 plus on the left side and 2 plus on the right side. The Kolmer reaction was weakly positive and the Kahn negative. The spinal fluid was under high pressure, showed 11 cells, a trace of albumin and globulin, and had a paretic gold curve of 44555410. Treatment consisted of spinal drainage, very cautiously, with the patient practically standing on his head, the fluid being removed very slowly. The intake of fluids was restricted and magnesium sulphate was given by mouth to increase dehydration. The syphilis was treated by intravenous mercury and iodides by mouth. In 48 hours symptoms disappeared, except for slight papilledema.

Dr. Kwiterovich presented 2 patients suffering from postencephalitic Parkinson's syndrome who had been treated with atropine sulphate. Both were advanced and long-standing cases, and both showed remarkable improvement after a short period of treatment. As these patients are hyposensitive to atropine large doses are given according to the following schedule: Using one-half of 1 per cent solution of atropine sulphate, one minim is given 3 times a day for 4 days; the dose is then increased at the rate of one minim a day for 4 days. Five minims are then given t.i.d. for 4 days and the dose again increased at the rate of one minim a day for 4 days. This schedule is followed until between 18 and 22 minims are given 3 times a day. The dose is then lowered and raised for a few days until the optimum dose is found which gives the greatest physical and psychic effect, at which point the dose is stabilized. Glasses may be required to correct the refractive error produced by atropine. HENRY F. HUNT, *Reporter*.

NORTHAMPTON

Nov. 16, 1934

The meeting was held at St. Luke's Hospital, Bethlehem, at 11 a. m., President Richards presiding.

Arno R. Zack, reporting for the Committee on Economics, said that the local plan for managing the payment of medical relief expenses did not get very far at the Wilkes-Barre session of the State Society.

Harvey O. Rohrbach of the Committee on Public Relations stated that the local society members were not giving sufficient coöperation in the program of examining children under the emergency plan which has been approved by the State and local societies. Toxoid has been sent out to members at their request and has not been used. If these children are not examined by local men the state will send its own physicians to do it. The request of the state authorities that they be granted the society's permission to do the work was only put off by the desire of the local men to handle it themselves. Up to now the work has not been adequately done.

Dr. Kreitz explained that the recently inaugurated Child Guidance Clinic is to deal with mental cases only, and will study only cases referred by physicians.

Dr. Estes, Sr., suggested that the local members of the Legislature be invited to address this society and to outline some of their plans. President Richards replied that questionnaires sent out before the recent election to local candidates were answered satisfactorily by the men who eventually were defeated but were not answered at all by the men who were elected.

President Richards stated that a debate would be held soon at Lafayette College on "Is Socialized Medicine a Justifiable Advance for Society at Large?" Lafayette has the negative side of the proposition while the affirmative side would be taken by the Mt. Holyoke debating team, whose traveling expenses (he understands) would be paid by the Milbank Fund. As the audience is to have one vote in making the decision on the debate a goodly representation of doctors in attendance will aid the negative side. [The debate was held before a large audience, and was won by the negative side.—EDITOR.]

Thomas J. Butler read a letter from a local surgical appliance dealer which was made the basis of a discussion on commissions to physicians from such dealers.

John A. Fraunfelder was elected to membership.

The guest speaker was Thomas H. Cherry, professor of gynecology, Post-Graduate Hospital Medical School,

New York City, whose subject was "Some Endocrine Factors in Gynecology." He said in part: The anterior lobe of the pituitary gland is the activator of the graafian follicle mechanism. The endocrine glands are intimately coördinated with the vegetative nervous system. Experiments using glandular products on laboratory animals cannot give results that are applicable to human clinical cases as far as dosage of these products is concerned.

He described the Endocrine Clinic that has been in operation at the Post-Graduate Hospital for the past 5 years. About 500 patients have been through the clinic in this time. Each patient is subjected to a thorough general physical examination and a careful pelvic examination. Basal metabolism tests and cranial roentgenray plates are made where indicated.

Experimental work done on rabbits by the staff members of the clinic bear out the work of other observers as to the action of placental extracts on the ovarian mechanism. This seems to be very similar to the action of pregnancy urine. The placental extracts worked just as well when given orally as when given hypodermically.

In general, liquid extracts of endocrine glands are preferable to solid preparations for clinical use because the dosage can be regulated more effectively, and they give rise to less digestive disturbance. Oral administration is preferred to hypodermic.

Cases of primary amenorrhea treated by pluriglandular extracts at the clinic have been benefited to a very limited extent. Secondary amenorrheas have been considerably improved. Treatment must be individualized. The basic therapy has been the use of anterior pituitary and placental extracts. To this thyroid extract has been added for those cases having a low basal metabolism rate and whole pituitary extract for those having periodic headaches. Additional local treatment such as the passage of cervical dilators and the insertion of glass-stem pessary was frequently used.

Cases of primary dysmenorrhea have been moderately helped by treatment with anterior pituitary and corpus luteum extracts. Antispasmodics aid in tiding these patients over until the glandular products take hold.

The vast majority of cases of secondary dysmenorrhea have definite pelvic pathology, and will get no relief until this is remedied.

Menopausal vasomotor disturbances can be satisfactorily treated by moderate doses of anterior pituitary and placental extracts.

On the whole, glandular therapy has given gratifying results in disorders of the menstrual function.

Luncheon was served at the hospital.

F. J. PEARSON, *Reporter*.

PHILADELPHIA

Nov. 14, 1934

The meeting constituted Public Health Night. "Philadelphia Air Conditions," was the subject of a paper by H. F. Smyth, associate professor of industrial hygiene at the University of Pennsylvania. The essence was the consideration of the amount of air pollution in different communities and the methods for its determination. Smoke has been considered from an esthetic and economic point of view for a long period, but its effect in shutting off full share of sunshine with its beneficial vitamin content has not been given very serious thought until very recently. Little has been done in this field in Philadelphia although other large communities have

demonstrated a rather constant factor in the matter of air pollution. In 1913, in Indianapolis, it was shown that during the winter months there was a precipitation over that city of $2\frac{3}{4}$ tons of solid matter per day per square mile. Daily observations have been made at selected stations in England with annual reports published since 1915; there are 48 such stations in London. In 1933 to 1934 throughout the entire area of London (not only in the manufacturing districts) a precipitation of 6.7 tons per square mile was observed. The maximum at any one time was about 2 tons. The highest records were found in specific locations such as manufacturing and congested areas. In the United States, Pittsburgh has been studied in this particular by the Mellon Institute for the last 10 or 12 years. While the smoke nuisance has been reduced, it was found that there was a considerable increase in the amount of tarry matters in the air especially in the neighborhood of a large garage, showing that not all the air pollution was industrial but was influenced by the increasing use of the automobile. Cleveland, 1927 to 1929, reported the highest figures of any American city in its downtown district. The average was almost 4 tons of matter per square mile per day.

In the preliminary surveys in Philadelphia, the essayist found in the study of the air washer of the Mastbaum Theater in the spring 1932 that almost half a ton of matter per day per square mile was being washed out of the air. In all studies both here and abroad the largest part of atmospheric pollution was found to be from domestic fires. Large industrial cities, however, are atmospherically dirty. In Philadelphia it was assumed that a great amount of air pollution was due to sulphurous fumes claimed to be from the refineries in the southwestern part of the city. A study was eventually made possible through the cooperation of the Franklin Institute and the C. W. A. A series of stations were located at strategic points in the city and surrounding suburbs and recording instruments utilized at these several points. It was found that larger particles of solid matter precipitated rather quickly but that the finer particles stay in suspension for a long while, and it is these that are regarded as more dangerous to health. The Philadelphia studies were made on flat roofs, during the sunlight hours, and utilized school buildings.

England is especially desirous of obtaining data as to the harm done by the exclusion of the ultraviolet rays which are so active in the production of vitamin D. A tube containing methylene blue solution is used for the test.

In Philadelphia it was found that the big industries have less to do with air pollution than do the smaller ones and the domestic householders. The large industries realize that smoke is costly and install apparatus that quickly determines when combustion is incomplete and the remedy is quickly applied. This does not obtain in the smaller industries or the domestic households. It was accepted by the essayist that tarry matter, sulphur dioxide, *etc.*, do not themselves exist in the air in sufficient amounts to be harmful but their combination in the atmosphere does have a definite effect upon the respiratory mucous membrane. This preliminary study showed the problem to be one of considerable magnitude and to warrant further intensive investigation.

"Amebiasis and the Carrier," was discussed by D. H. Wenrich of the Zoölogical Laboratory of the University of Pennsylvania. He referred to the widespread distribution of the one-cell group of organisms, the protozoa, to which group the ameba belongs. In view of

this it is not surprising that many have found their way into the bodies of animals. Nearly every animal has some protozoa living inside of it; many have more than one type. Some protozoa are distributed as parasites. It is to this group of parasites that the ameba belongs. Some of the protozoa live on the outside, some on the inside. In terrestrial animals, the digestive tract is the first point of attack, and from there they migrate into the tissues, the blood stream, and various organs. Man himself has at least 25 different kinds of these protozoa. There are 6 different kinds of ameba alone, 1 in the mouth, the other 5 in the digestive tract. Only one of these, as far as is known, is a disease producer. In 1930 this disease producing ameba was named *ameba histolitica*. It is capable of penetrating the tissues, and in its active state lives in the large intestine. It varies in size and usually takes almost 500 to equal an inch. When they cease their active state in the intestine they secrete a very fine membrane, which transforms the organism into a cyst. This is the stage of cystation. At first it has a single nucleus but eventually 4 nuclei may be found in the mature cyst. These cysts are taken into the digestive tract of a new host, the ameba forces itself out of the enclosed membrane, and the 4 nuclei become 8. This excystation takes place in the small intestine. They then pass into the large intestine, where they attack and penetrate the walls, unless the host lacks resistance against them. They multiply by division, increase their activities and by destroying the tissues produce superficial irritation and ulceration. They reach the veins secondarily and may ultimately reach the liver. A liver abscess, while rare, is one of the common sites of the ameba. The symptomatology of amebic dysentery was also discussed. The fulminating types do not show the ameba in the cyst stage in the stools but the milder cases are so distinguished. The cyst, however, is the only stage that can infect a new host, thus emphasizing the importance of recognizing the mild cases. The cyst passer is known as a carrier. Repeated examinations of the stools may be necessary for detection. The danger to any community of amebiasis depends upon the number of carriers, the character of the water supply and sewage disposal, and the number of flies that have access to human excreta. The latter are potent factors in the dissemination of this disease, as they are likely to infect the food.

Amebiasis is not confined to the tropics. It is found in every part of the world and there are carriers in every state of the Union. It has been estimated that from 5 to 10 per cent of the carriers are in the United States although most of these are in the Southern States. The easy facilities of travel increase the hazard. The incidence of ameba carriers in the student body of the University of Pennsylvania over a 4-year period was 4.1 per cent. This danger was promptly eradicated. The percentage in and around Philadelphia was relatively higher than that in a selected area of New Jersey (Camden) where the water supply is from artesian sources. There is a general possibility of infection from the lower animals but not a great one.

The preventive measures include exposure of excreta to 140° F., 1 per cent carbolic acid solution, or liquor cresolis compound. The cysts are killed by drying. Chlorine as used in the water supply does not affect them. They thrive in moisture and in clean water. The Chicago epidemic was attributed to water pollution due to defective plumbing. In the absence of ameba in the stools, the diagnosis is difficult. Slides were shown.

"Chlorine Prevention and Disease" was discussed by Franz C. Schnellkes, director of the Department of Re-

search, Wallace and Tiernan, New York City. Slides were shown which had to do with the sources by which the water supply becomes contaminated. Chlorination is indispensable to the safeguarding of the water supply, and he quoted instances to substantiate this conclusion.

Nov. 28, 1934

The meeting was devoted to a symposium on "A Scientific Study of Asthma and Sensitization in General."

Richard A. Kern presented the definitions of the several technical terms used in this connection such as atopy, allergy, anaphylaxis, and sensitivity. The manner in which terms achieve their acceptance was touched upon as was the possibility of their inappropriateness when the subjects for which they are used have become better understood. He referred to the use of the term hypersensitiveness as the broadest of all the terms used in this connection particularly since it is applicable to all phenomena in man or beast of excessive altered reactivity to a given substance, as compared with the reactivity of normal individuals of the same species to that substance. It is the one term that can be used without fear of criticism. Anaphylaxis is an artificially induced, hypersensitiveness in an animal to a soluble protein foreign to the species. He would restrict the use of this term to the phenomena observed in the lower animals. Outstanding among the phenomena of anaphylaxis are these: The picture of anaphylactic shock is characteristic for each species. Anaphylactic hypersensitiveness is not hereditary, and can be transferred passively from a sensitive animal to a normal animal of the same species. The sensitivity does not go beyond the first generation. Human hypersensitiveness, as seen clinically, has some decided differences from the artificially induced hypersensitiveness of animals, anaphylaxis. In contrast to the single picture of anaphylactic shock for each species of animal, human hypersensitiveness is known to show itself in many forms, and the list of clinical conditions that may be due to hypersensitiveness is constantly increasing. Whereas in the anaphylactic animal certain tissues are always markedly sensitive, in human hypersensitiveness the sensitivity may vary as to the organ affected, also its degree. Man when sensitive is more often sensitive to a number of things. Multiple sensitivity is the rule in man, and he may be sensitive to nonprotein as well as protein substance. Not all forms of human hypersensitiveness can be passively transferred—only those forms in which the blood contains circulating antibodies (or reagins). This fact makes it unwise to use hypersensitive persons as blood donors. Heredity also plays an extremely important rôle in a number of forms of human hypersensitiveness. The hereditary form in which circulating reagins are present has been designated by Coca as atopy which merely means "strange disease." The particular manifestation of hypersensitiveness is not inherited, but only the ability to become hypersensitive. Allergy was first introduced by Pirquet to designate the altered reactivity of a man or animal that has been injected with an antigenic substance but is now employed to include all clinical forms of human hypersensitiveness, but it does not include anaphylaxis, the artificially induced form of hypersensitiveness of animals. Regarding immunity, Dr. Kern believes that hypersensitiveness is only a phase of immunity, immunity gone wrong!

The methods of "Testing for Sensitization and Developing Hyposensitization," were described rather fully by J. A. Clarke, who was especially emphatic in his denunciation of the schedules prepared by commercial

interests for the making of these tests stating the procedure was neither safe nor accurate. The physician working in this field should rely upon his own clinical judgment and experience.

A series of case records of unusual interest were shown by Harry B. Wilmer by means of lantern slides, illustrating the wide field of usefulness for allergic diagnosis and therapy.

In the discussion Claude P. Brown discussed important laboratory features of the subject. He referred to the chaos in the study of this subject which doubtless will be eliminated as it becomes better understood. He urges not only careful history-taking and thorough physical examination of these patients, but the making of a blood study. It is inconceivable that any patient deemed worthy of laboratory study should be denied such fundamental examination. Henry P. Schenk detailed the known and unknown features of hypersensitiveness in its various forms. The short period of time since the clinical features of the condition first attracted attention he regarded as responsible for much of the misunderstanding. The elaborate technic essential for accurate estimation of allergic phenomena compels the assignment of this work to those especially equipped for it.

SAMUEL HORTON BROWN, *Reporter*.

WARREN

Nov. 19, 1934

The meeting was held in the Warren General Hospital, 29 members being present. The session was devoted to the subject of the treatment of syphilis.

Dinner was served, the superintendent and nursing staff acting as hosts.

Dec. 17, 1934

A committee was appointed to discuss hospital rates with the superintendent of the hospital and to rearrange the Medical Library.

Nominations for officers to be elected in January were made.

H. C. Eaton showed motion pictures of patients from the State Hospital which illustrated paretic convulsions, Parkinson syndrome of encephalitis, Huntington's chorea, and other disturbances of motility.

The dinner was sponsored by Drs. Africa, Anderson, Beaty, and Ball, and 27 members participated.

MICHAEL V. BALL, *Reporter*.

WASHINGTON

Nov. 14, 1934

The meeting was held at 8:00 p. m., at the Washington Hospital, with President W. J. L. McCullough presiding.

Guests at the meeting were Dr. Price of Pittsburgh and Dr. Smith of Uniontown, who discussed the importance of completing examination of all children in relief families. Great headway has been made in most counties throughout the State, and it is necessary to bring it to a successful close in the near future, in order that all necessary corrective medical measures may be completed.

There was an unusual attendance with visiting physicians from Wheeling, W. Va., Uniontown, and Greensburg. Walter M. Bortz, Greensburg, read a paper on "Obesity," and said in part: The subject of obesity and weight reduction has in recent years been quite generously dealt with by way of radio, public

press, weekly and monthly magazines, both lay and medical. Much of this publicity, as publicity goes, has been propaganda in which there is little or no merit. The motive behind some of this has nevertheless been commendable as witness the article by Morris Fishbein in the *Saturday Evening Post* of September 22, 1934. The lay public is very much interested in metabolism, but unfortunately this large amount of interest is in inverse proportion to the small amount of scientific knowledge on the subject. The whole subject is still full of unsolved problems.

Several years ago physicians rather felt that this subject of obesity could be disregarded. Times change and we may now regard the problem as an opportunity, much to the benefit of our patients.

Life insurance companies are to be thanked and commended for laying this child of medicine at the door of the physician where it rightfully belongs. We have had forced upon us prenatal care; the cultists have forced us to take up physical therapy, much to the betterment of medicine; each passing year finds our profession more and more concerned with problems relating to preventive medicine.

Obesity is one of those conditions which should be considered as coming within the realm of preventive medicine.

Anything that is above or below 20 per cent of the average is regarded as underweight or overweight, respectively. The fat storage in the adult normal male is approximately 15 per cent of the body weight.

CLASSIFICATION: 1. Exogenous (due to overeating or underactivity or both); 2. endogenous (a) endocrinopathy (thyroid, pituitary, adrenal, and gonad), (b) nervous, (c) defective water metabolism, and (d) defective salt metabolism.

The complications, if they may be so termed, of obesity are many. Obesity and diabetes are closely related and the same applies to cardiovascular-renal disease. Eighty per cent of all cases of obesity are familial. The mortality from circulatory disease is $2\frac{1}{2}$ times as great as in those below average weight.

In the treatment of obesity, we must individualize to the same extent as in diabetes. Success depends much upon discrimination in diets and methods employed. The secret of a reduction in weight depends upon the patience and skill of the physician and the coöperation of the patient. Fundamentally, to reduce weight, it is necessary to limit caloric intake to less than energy output and, if a satisfactory weight has been established, to measure as nearly as one can, energy output with caloric intake.

It is a good rule to place the patient upon a diet of 1000 to 1200 calories, using a large quantity of the 5 per cent vegetables, the so-called protective foods. A lower caloric diet than this makes it difficult because the sensation of hunger is too acute. Many times a person's weight can be controlled by a simple reduction in diet of the fat-producing foods such as cream, eggs, meat, butter, pastries, etc., or by an increase in exercise, or both. A slower reduction in weight than that usually advised, that is 2 pounds weekly, should be followed. A reduction of one pound per week is not as difficult of attainment although it extends over a longer period of time. This gives a better opportunity of bringing under control the habit of overeating.

Drugs are relatively unimportant except as a placebo. The Lankenau Clinic uses soda bicarbonate so as to neutralize gastric acidity, thus diminishing hunger. A cigarette acts largely the same way. Thyroid extract may be used where obesity is the result of hypothyroid-

ism. The use of saline catharsis with its subsequent dehydration is mentioned only to be condemned.

As to dinitrophenol, at the recent State Society meeting, the Lankenau Hospital, Philadelphia, metabolic clinic reported a series of 60 cases treated with this drug and the metabolic clinic of the Temple University Hospital, Philadelphia, reported 30 cases so treated. Their results were unconvincing to the writer. The toxic effects of the drug are too frequent, being exhibited by a generalized urticarial-like eruption, profuse perspiration, or sensation of heat. It is a powerful drug being capable of elevating the metabolic rate to 50 per cent above normal. Any drug that has such potentialities is to be greatly respected. But to say that it should not be used for that reason is beside the point. There have been numerous deaths reported, 7 up to the present time. The last one reported was due to a granulopenia. High protein feedings stimulate metabolism. The best all around and most constantly available metabolic stimulant is exercise and, if taken in the fresh air, its value is increased manifold.

It is necessary to ascertain the optimum weight for each individual and a decision must be qualified by the human equation. If obesity is not a disease, it is at least an unhealthy condition and as such should take its place in the category of preventive medicine.

Charles Crouse, Washington Hospital, read a paper on "Acute Pancreatitis" and said in part: The importance of the pancreas in upper abdominal conditions often is unrecognized. This fact may be due to the deep-seated position of the gland, the difficulty in approach, and its close relation to the other organs of the abdomen and the absence of a clear-cut picture of the disease such as we might expect to find in appendicitis, gallbladder disease, and ulcers of the stomach or duodenum.

Because of its abundant blood supply and the danger of hemorrhage the surgeon has tripped lightly about the pancreas instead of boldly doing his duty. Since the discovery of insulin and the opening of new fields of medical and surgical possibilities more time is being devoted to the pancreas. For this reason it is becoming more and more the proper thing to examine the gland routinely in abdominal operations.

Infection reaches the pancreas usually by one or more of 4 channels: Through the lymphatics; by way of the ducts; by way of the blood stream; and, by contiguity.

When the infection enters the gland it activates the trypsin, a powerful ferment generated by the gland, which is generally inactive within the gland and does no harm to the tissues, but when activated its digestive action is at once manifested, destroying the cells and blood vessels of the gland, and extending to surrounding tissues allows blood to escape and hemorrhage appears in and about the tissues giving rise to hemorrhagic pancreatitis.

Acute pancreatitis may occur, however, without the above manifestations such as in nonsuppurative inflammation characterized by swelling, edema, and tenderness over the site of the pancreas. It may be localized or associated with cholelithiasis or duodenal ulcers. This would indicate a duct-borne infection.

The pancreas has great power to resist abscess formation which usually occurs after gangrenous conditions. Primary abscesses do occur singly or multiply throughout the gland following appendiceal abscess, peritonitis, or gall stones with stasis.

Pancreatic infection by way of the blood stream is rare. The association of acute pancreatitis with epi-

demic parotitis is well established but how the condition occurs is not clear. The abdominal symptoms appear early in the course of the parotitis and with their advent the parotid swelling rapidly disappears.

From a surgical standpoint pancreatitis is divided into 3 varieties—hemorrhagic, gangrenous, and suppurative.

Of all the acute conditions in the abdomen pancreatitis presents the most agonizing and dramatic syndrome and the diagnosis is less seldom made before operation than that of any other acute abdominal crisis.

The inability to make the diagnosis is due to the comparative infrequency of the condition, to the absence of definite symptoms, to its close association with other severe abdominal lesions, to the desperate condition of the patient in the ultra-acute case, leading to immediate surgical operation without the formality of a diagnosis. It is almost impossible to make a diagnosis more than 30 hours after the onset of the disease.

The pain is overwhelming, more so than that following a ruptured viscus. The patient goes into a state of shock and often collapse. There is subnormal temperature, vomiting, and the blood pressure falls. Dyspnea is characteristic of the disease.

The pain usually starts deep in the epigastrium but may radiate to the chest or hypochondrium. Persistent retching and hiccough is frequent and often a fatal sign. Cyanosis of a yellowish hue is characteristic. Halstead emphasizes a slate-blue color of the abdomen and extremities. Marked rigidity is often an early symptom but it may appear gradually. Tenderness is marked in the epigastrium. Distention is not as pronounced as in other abdominal crises. The bowels are obstinately constipated. The leukocytes are increased. Jaundice is present in some cases but the close relation of the disease to the biliary tract makes the symptom of little importance.

Early in the disease the blood amylose has been increased as high as 200 units, which usually decreases rapidly with the progress of the disease to normal which is about 40 units.

Differential diagnosis should be made between acute pancreatitis and acute intestinal obstruction, perforation of the stomach, duodenum or gallbladder, gallbladder colic, acute appendicitis, and ruptured ectopic pregnancy. Coronary thrombosis may often be confused with pancreatitis and acute poisoning may simulate the most severe cases of pancreatic apoplexy. Of all these conditions the differential diagnosis between pancreatitis and acute intestinal obstruction will probably give the most difficulty.

The essential thing in the treatment of pancreatitis is draining the toxic secretions away from the pancreas. Pancreatostomy is beneficial if for no other reason than the relief of tension present in the gland. Early operation should be performed because the primary hemorrhage in itself leads to necrosis and degeneration of the pancreas with further necrosis of fat and gland tissue, and because patients are in far better condition to withstand an operation early in the disease than later when they become exhausted from the disease. In a certain percentage of the cases the shock at the onset is so great as to render operation impossible.

In discussion Robt. H. Jeffrey of Uniontown said that in acute pancreatitis the mortality was 40 to 60 per cent; that early drainage brought best results; and that the diagnosis is difficult. In his experience, 20 per cent of the cases are not diagnosed and only discovered in the course of operation on the emergency abdomen. Elliott B. Edie of Uniontown said that first

in importance in consideration of obesity comes the diagnosis or cause. In his experience weight reduction should average 1 to 2 pounds a week. Encourage activity and physical exercise, and manage patient according to physical condition present. Very frequently a reduction in carbohydrates and fats with a restriction of fluids and salts is enough to accomplish a gradual reduction in weight without any harm to the patient.

Dec. 12, 1934

The meeting was held at the Hillview Farms Sanitarium, Washington, with President W. J. L. McCullough presiding.

New members admitted are Edward Roth, Donora; Joseph P. Hughes, Monongahela; Thomas Ellsworth Morgan, Fredericktown; and John Ross Hague, Bentleyville.

Frank H. Krusen, of Philadelphia, chief of the Department of Physical Medicine of Temple University Medical School, spoke on "Physical Therapy."

After defining physical medicine, or physical therapy, Dr. Krusen outlined its history, from the earliest times when primitive man lay in the sun for its invigorating and healing rays, bathed his wounds in some stream, thus beginning hydrotherapy, and rubbed bruised muscles, inaugurating massage. History tells, too, of Anthero who, in the time of Emperor Tiberius, stepped upon a torpedo (an electrified fish) and cured his gout.

However, it has been only within the past 10 or 15 years that physical medicine has developed as a branch of scientific medicine, and courses have been instituted in our universities only within the last 5 years. A great many practitioners are unaware of some of its possibilities. Feeling the need for dissemination of this knowledge for practitioners who have been out more than 5 years, the Council on Physical Therapy of the A. M. A. has organized a national committee which inaugurated here a course of lectures to be given throughout the various county medical societies.

Two phases that the average physician should know are (1) what physical therapy measures he can use in his practice, and (2) something about the workings of the modern hospital physical therapy department, as well as some of the things the hospital physical therapy department can do for him. There are over 3000 such hospital departments in the United States today, the best ones being run by specially trained physicians, with groups of trained technicians. These technicians are chosen from 2 groups chiefly, either graduate nurses or physical education graduates, with a year's special training in physical therapeutic technic. These technicians are then licensed by the state and are capable of practicing under the supervision of physicians in departments conducted similar to roentgen-ray or laboratory departments in modern hospitals. Technicians also should be encouraged to train under supervision by physicians in hospitals.

Motion pictures illustrating the various types of physical therapy were shown with explanatory remarks. In artificial fever therapy, heat shock which results mostly from loss of chloride is averted by the use of a 0.6 per cent saline solution given by mouth. Following the treatment the patient rests for one hour, is given a shower bath, and is then permitted to go home, remaining ambulatory. Artificial fever is used in the treatment of dementia paralytica, chorea, multiple sclerosis, postencephalitic Parkinson's syndrome, cerebrospinal syphilis, gonorrheal arthritis, gonorrheal pelvic inflammatory diseases in the female, and acute gonorrhea in the male. Experiments are now being conducted

in the aborting of anterior poliomyelitis by this means, and in the treatment of pulmonary tuberculosis, bronchial asthma, and corneal ulcer.

The uses of heat therapy through diathermy were shown in the desiccation of moles and in the cutting current, which is the ideal method of removing tissue for biopsy, leaving a thin film of coagulation on the cut surface which is not sufficient to interfere with the study of the tissues removed. Phototherapy or light therapy was demonstrated. Various forms of hydrotherapy were explained and instructions given as to the home manufacture of many of the devices, as well as indications for their usage.

Mechanotherapy, or the mechanical treatment, is divided into 2 classes—massage and corrective exercises in their 4 forms. These were demonstrated in the films, and the 4 types of massage were shown by Mr. James Q. Simmons, physiotherapist of Hillsview Farms Sanitarium.

Pamphlets were distributed describing and illustrating useful therapeutic measures. A buffet lunch was served.

SAMUEL A. RUBEN, *Reporter.*

YORK

Nov. 17, 1934

President James F. Wood in the chair.

T. Nelson Carey, University of Maryland, Baltimore, spoke upon "Clinical Types of Allergic Disease."

In brief he stated that:

1. *Anaphylaxis* is found only in animals, probably in human species; heredity plays no part; may be actively produced; there is an antigen-antibody reaction; reaction may be produced in the test tube; passive transfer may be produced; desensitization may occur; skin test does not occur.

2. *Atopy* (anaphylaxis in man), such as occurs in hay fever, asthma, atopic eczema, and the immediate serum reaction which is fatal occasionally, urticaria, migraine, epilepsy, and perhaps forms of colitis. Fifty per cent of atopic diseased persons give a history of heredity; actively produced in man; there is an antigen-antibody reaction, but it cannot be shown in the test tube; passive transfer does not occur; desensitization does not occur as a rule but patients can be rendered less sensitive though not permanently so; skin test positive.

3. *Serum Sickness* has no heredity incidence in 90 per cent; actively produced in man and animals; antigen-antibody reaction questionable; no passive transfer; desensitization questionable; skin test of no value; the shock from serum is different from serum sickness.

4. *Contact Dermatitis* (poison ivy) has naught to do with heredity; occurs only in man; may be actively produced; no antigen-antibody reaction; passive transfer impossible; may be partially desensitized; skin test here is a late reaction characterized by vesiculation (Patch test); pollen oils may cause contact dermatitis; leather, suede, etc., mostly due to fats.

4. *Drug Allergy* (heredity unknown); man only; not actively produced; no antigen-antibody reaction; no passive transfer or desensitization; no skin test.

6. Tuberculosis shows no heredity; occurs in man and animals; actively produced by infection; desensitization may occur; no passive transfer and skin test is a late wheal (48 hours); antigen-antibody absent.

In discussion James F. Wood, Mt. Wolf, referred to

a patient who sucked lemons to counteract a strawberry rash. J. H. Comroe, York, referred to patients who were well until tonsillectomy, then developed an asthma syndrome; Dagorsky of St. Louis stated that allergic rhinitis and bronchial asthma follow tonsillectomy, and in a small percentage hereditary atopy. Dr. Carey stated that tonsillectomy cannot reactivate a latent allergic state in patients but an infectious disease may cause the asthma as an allergic manifestation; that the tonsil itself does not supply a specific protective mechanism; that emotional states may cause asthmatic attacks; that the asthma syndrome following tonsillectomy is probably a hyperirritability of mucous membranes rather than a hypersensitivity. C. L. Fackler, York, asked regarding polyps and mucous membranes of the nose and allergy; must these patients be desensitized or is it a vasomotor rhinitis or an allergic manifestation or, as Kern states, does calcium metabolism enter the picture? Dr. Carey stated that the patient must be advised to avoid feather pillows, to roll a blanket in a sheet for a pillow, and then use a kapok pillow. Vasomotor rhinitis is generally due to dust, orris root, feathers, or animal emanations; very few people are sensitive to kapok. Kern has helped patients who have sinus disease and bronchial asthma, but many of these patients are easier to talk about than to treat satisfactorily. B. A. Hoover, Wrightsville, stated that asthma may be relieved by a silk floss pillow; an extract of molds and ragweed relieved one patient; in another, soft-boiled eggs caused urticaria. G. E. Holtzapple, York, spoke of food sensitivity and asthma; often unable to find the cause; testing for cause of angioneurotic edema by Patch or skin test is unreliable. He asked how to find a remedy for food sensitivity. In closing, Dr. Carey said insensitivity to molds is definitely caused by pollen spores; perennial treatment is necessary. Food causing angioneurotic edema and urticaria often may be found and urticaria is a primary symptom of serum sickness and in those patients who have sensitive skins. When not due to drugs, 35 to 40 per cent of drug allergies are due to focal infections; 30 per cent have no known cause; these may be helped by calcium lactate and adrenalin.

H. MALCOLM READ, *Reporter.*

GLEANINGS

The time may come when we shall be able to switch off our nervous energy as readily as we do our radio or our electric lights, when we have learned more about the nature and uses of relaxation, suggested Sir Farquhar Buzzard in an address on the subject of rest, work, and play in health and disease delivered at a joint meeting of the British and Canadian Medical Associations in Winnipeg. "Work cures" are frequently more efficacious than "rest cures," especially in certain types of mental and nervous cases, Dr. Buzzard pointed out, indicating that physicians often prescribe vacations when a properly directed occupational regimen would be infinitely better. "Because a patient is suffering from a nervous disease," he said, "all the functions of the organism should not be put in irons and allowed to rot." In many cases fatigue attributed to mental overwork might better be ascribed to preoccupations and anxiety or other emotional disturbance. Much clinical study must be added to our knowledge of the physiology of the nervous system before practitioners can be sure of their principles in prescribing work, rest, or play in physical and mental sickness.—*Mental Hygiene Bulletin.*

The Woman's Auxiliary to The Medical Society of the State of Pennsylvania

MRS. GEORGE C. YEAGER, *Editor*, 1419 E. Susquehanna Ave., Philadelphia, Pa.

COUNTY AUXILIARY REPORTS

Allegheny.—Last May the auxiliary held its first Reciprocity Health Day Meeting at the College Club. Representatives from women's clubs, parent-teacher units, and civic organizations in Allegheny County were invited to this meeting and urged to have at least one program on health during the year in their own organizations. As a result many requests have been received by the auxiliary for suggestions and help in planning these health programs.

On Oct. 25, the Public Relations Committee of the auxiliary called a conference of program chairmen of groups planning health work during the year. The purpose of this meeting was to coördinate and to concentrate these programs on the subjects being emphasized at the present time by the Allegheny County Medical Society. Thirty-five organizations were represented at this conference.

Dr. H. J. Benz of the Pittsburgh Department of Health discussed the importance of immunization of the preschool child against diphtheria, and presented the plan for conducting the work. Dr. R. R. Jones, president of the General Health Council of Pittsburgh and Allegheny County, discussed the organization and work of that group, and gave an outline of the campaign against venereal diseases. Mr. George A. Taylor of the Pittsburgh District Dairy Council explained literature on diet. At the close of the meeting literature either published or approved by The Medical Society of the State of Pennsylvania was distributed to the various groups represented for program use.

On Nov. 20, the auxiliary sponsored a radio program over KDKA at 2:30 p.m. Dr. H. G. Schleiter spoke on "Good Health from a Community Standpoint."

This broadcast was given as an incentive to centralize the health efforts of various organizations in a few needed projects and with a uniform purpose in their work, to emphasize the importance of getting authentic information for programs, to create greater interest in health needs, and to widen the scope of health education.

Bucks.—A large representation of the membership of the auxiliary attended the November meeting. The ladies had dinner with the doctors at the Fountain House, Doylestown, after which the auxiliary was entertained at the home of the president, Mrs. Herbert T. Crough, where a Health Day program was conducted. Mrs. John B. Chambers of Newtown talked on "Trends in Public Health." Representatives from women's clubs and the Red Cross, hospital superintendents, school nurses, and members of other organizations were present, a number of whom gave five-minute talks. Tea was served.

Chester.—The auxiliary met for luncheon at the Green Lantern Tea Room, Phoenixville, Nov. 20. The incoming president, Mrs. Howard Mellor, was inducted into office, and the retiring president, Mrs. U. Grant Gifford, was presented with a bouquet in appreciation of her year as leader of the group.

Dr. George Cross of Chester, chairman of the Eye, Ear, Nose and Throat Section of The Medical Society of the State of Pennsylvania, gave a talk on "The Antiquity of Spectacles."

The following committee chairmen were announced: Legislation, Mrs. J. Oscar Dicks; public relations, Mrs. Howard B. F. Davis; membership, Mrs. Henry Pleasants; program, Mrs. Joseph Scattergood, Jr.; courtesy, Mrs. U. Grant Gifford; other appointments will follow.

Reports from the State convention at Wilkes-Barre were given by Mrs. John A. Farrell, Mrs. Michael Margolis, and Mrs. Mellor.

Delaware.—On Nov. 6, Mrs. E. Arthur Whitney, president, gave a reception at the Elwyn Training School in honor of the 5 past presidents of the auxiliary.

On Nov. 23, the meeting of the Board of Directors was held in the form of a luncheon meeting at the home of Mrs. Whitney.

The Dec. 13 meeting was held at Elwyn. Dr. Bertha Harmon gave an address on "Personality and Psychology of Clothes."

Lehigh.—Mrs. Laurrie D. Sargent of Washington, president of the State Auxiliary, was the guest of honor at the annual bridge luncheon of the auxiliary, which was held on Nov. 13 in the Elks' clubhouse, Allentown. While the luncheon was being served Mrs. Sargent outlined objectives for the State Auxiliary for the year.

Mrs. H. H. Earp, president, presided at the meeting. Following the luncheon and meeting, bridge was played.

Luzerne.—The meeting of the auxiliary was held Nov. 21 at the Woman's Club, Wilkes-Barre. Mrs. C. W. Prevost presided.

Mrs. Charles Miner, who was convention chairman, gave a résumé of the benefits and pleasures of the State Convention which met in Wilkes-Barre. Mrs. Julian Long, treasurer, gave a final report of the expenditures of the convention. There were also reports by 2 of the State delegates, Mrs. Nathaniel Ross and Mrs. A. Dattner.

The auxiliary voted to contribute \$50 to the Wyoming Valley Welfare Association, \$15 to the Pittston Community Chest, and \$15 to the Nanticoke Welfare Association.

Plans were discussed for the annual meeting, which is to be held sometime in January.

During the business meeting the women folded bandages for the Mercy and General Hospitals. There were 55 in attendance.

Lycoming.—The meeting of the auxiliary, preceded by a luncheon, was held Nov. 9 at the Woman's Club. The president, Mrs. C. W. Youngman, presided.

The \$40 the auxiliary has been contributing yearly to certain welfare organizations was diverted to the interest on the deep therapy cancer machine.

Mercer.—The meeting of the auxiliary was held in the Penn Grove Hotel at Grove City, Nov. 14.

Dinner was served to the physicians and members of the auxiliary.

A letter from Dr. Donaldson was read thanking the auxiliary for its contribution to the Medical Benevolence Fund.

Mrs. Biggins, delegate to the State Convention at Wilkes-Barre, gave a report. As a result of the report, extensive plans were made to try in every possible way to bring *Hygeia* before the public, especially to have it placed in the rural school districts.

The following chairmen of committees were appointed: Hospitality, Mrs. P. E. Biggins; membership, Mrs. J. M. Jamison; public health, Mrs. D. Donley; program, Mrs. B. A. Black; legislative and publicity, Miss Helen Reed; *Hygeia*, Mrs. W. Writt; and flowers, Mrs. Watson Campbell.

At the conclusion of the meeting a musical program was given.

Northampton.—The meeting of the auxiliary was held as a joint one with Lehigh County to honor the new state president, Mrs. L. D. Sargent.

Mrs. Sargent, in her address, stressed the menace of state medicine, outlined the activities of the public relations committee, and advocated a reciprocity day to be held in conjunction with lay organizations.

Philadelphia.—The auxiliary had 2 card parties and a white elephant sale this fall with gratifying results. The meeting on Dec. 11 was a "dream come true" of the chairman, Mrs. Wm. B. Odenatt. The program consisted of songs, book reviews, and an illustrated travelogue. After the program tea was poured.

Westmoreland.—There were 80 present at the luncheon of the auxiliary held Oct. 12 at the Greensburg Country Club. There was no business conducted, but an entertaining program was given.

Mrs. David B. Ludwig and her cast of 12 women from Pittsburgh were guests of the auxiliary and presented a pageant, "Auxiliary Through the Ages," written by Mrs. Ludwig.

Dr. O. B. Snyder, president of the Westmoreland County Medical Society, brought greetings and told of different discoveries through the ages. Dr. C. D. Ambrose, Dr. Taylor, and Dr. Milligan were on the program as guest speakers.

Medical News

Births

TO DR. AND MRS. ELWOOD S. MYERS, Jeffersonville, a son, William Swartz, Dec. 12.

TO DR. AND MRS. S. R. SCHOOLEY, Shavertown, a daughter, Dec. 19.

TO DR. AND MRS. FRANK G. TONREY, West Pittston, a daughter, Dec. 6.

Engagements

MISS REBECCA COHEN and Dr. Bernard Viener, both of Harrisburg.

MISS MARGARET ANN TRUNAL, daughter of Dr. and Mrs. Cyrus W. Trunal, of Wayne, and Mr. William MacGeorge, also of Wayne.

MISS MARY CHRISTINE BARRETT, daughter of the late Dr. and Mrs. Thomas J. Barrett, and Dr. Joseph Vincent Missett, Jr., son of Mrs. Joseph V. Missett and the late Dr. Missett, of Philadelphia.

Marriages

MISS BRONWEN F. REES to Dr. Leslie J. Boone, both of Kingston, Oct. 17.

MISS BESSIE MAY ROTH, of Allentown, to Dr. Joseph Russo, of Norristown, Aug. 30.

MISS EMELVA M. MCCORMICK, Atlantic City, to Dr. John J. Shober of Philadelphia, Dec. 22.

MISS ELIZABETH ALMA LOUISE WENNING, of Nashville, Tenn., to Dr. Rudolph Maximilian Goepf, of Philadelphia, Oct. 6.

MISS ELIZABETH ELMER, daughter of Dr. and Mrs. Robert P. Elmer, of Wayne, to Mr. James Booth, of Germantown, Dec. 24.

MISS THELMA TARING, of Aberdeen, Md., to Dr. W. A. Prideaux, Jr., son of Dr. and Mrs. W. A. Prideaux, Sr., of Twin Rocks, Oct. 31. Dr. Prideaux practices in Claysville.

DR. MARY ELIZABETH LEHMAN, daughter of Dr. and Mrs. Frank Lehman of Bristol, to Mr. Wallace Windus, also of Bristol, Nov. 24. Mrs. Windus has been associated with her father in the practice of medicine and will continue her practice under the professional name of Dr. Mary Lehman.

Deaths

RODERICK E. ALBRIGHT, Allentown; Jefferson Medical College, 1896; member of his county and State medical societies and a Fellow of the A. M. A.; aged 62; Nov. 23.

JOSEPH WRIGHT ALLEN, Monongahela; Cleveland Homeopathic Medical College, 1907; member of the county and State medical societies; on the staff of the Memorial Hospital; aged 52; Aug. 11, of cerebral hemorrhage.

EMILY G. WHITTEN AUGÉ, Philadelphia; Woman's Medical College of Pennsylvania, 1894; died Dec. 11, from heart disease. Dr. Augé was the widow of the late Dr. Truman Augé. She was senior chief-in-surgery in gynecology at the Women's Hospital of Philadelphia and chief urologist at the Clinic of Notre Dame. For many years she was chief at the West Philadelphia Hospital for Women. She was a member of her county and State societies and a Fellow of the A. M. A.; member of the Obstetrical Society of Philadelphia, the Pediatric Society, and a Fellow of the American College of Surgeons. She is survived by 2 daughters and 2 sisters.

HARVEY B. BASHORE, West Fairview; University of Pennsylvania School of Medicine, 1889; member of his county and State medical societies; member of the borough council and for a number of years was State health officer for Cumberland County; aged 70; Nov. 28, of heart disease. He is survived by 2 sisters.

WILLIAM J. BAUMGARTNER, Philadelphia; Jefferson Medical College, 1893; aged 64; Dec. 9, after a year's illness. Dr. Baumgartner was a graduate of the Philadelphia College of Pharmacy and for a number of years conducted a drug store in association with his practice in Philadelphia.

CLARENCE AUSTIN BICKING, Pittsburgh; Baltimore Medical College, 1913; member of his county and State medical societies and a Fellow of the A. M. A.; formerly on the staff of the Presbyterian Hospital and Dixmont (Pa.) Hospital; aged 49; Nov. 21, in Chicago, of heart disease.

MR. ALBERT E. BLACKBURN, JR., a son of Dr. and Mrs. Albert E. Blackburn, Philadelphia, Nov. 30.

GEORGE M. CUMMINGS, Eldred; College of Physicians and Surgeons, Baltimore, Md., 1892; member of his county and State medical societies; aged 74; in November.

CLARA T. DERCUM, Philadelphia; Woman's Medical College of Pennsylvania, 1887; aged 76; died Dec. 23. Dr. Dercum was the daughter of the late Ernest and Susanna Dercum, and a sister of the late Dr. Francis X. Dercum, distinguished neurologist. She served for years on the staff of the Woman's Hospital, and retired from practice many years ago on account of ill health.

LOUIS FREDERICK GREBE, Reading; University of Pennsylvania School of Medicine, 1920; aged 40; Nov. 6, of heart disease.

SOLIS-COHEN B. HERTZOG, Reading; University of Pennsylvania School of Medicine, 1923; member of his county and State medical societies; formerly superintendent of the Berks County Tuberculosis Sanatorium; on the staff of St. Joseph's Hospital; aged 39; Nov. 6, of pneumonia.

AUGUSTUS F. KEMPTON, Philadelphia; Jefferson Medical College, 1880; member of his county and State medical societies and a Fellow of the A. M. A.; aged 79; Dec. 6.

ALDEN B. MACDONALD, Warren; Jefferson Medical College, 1904; member of his county and State medical societies and a Fellow of the A. M. A.; aged 54; in November.

THOMAS N. MILLIKIN, Waynesburg; Jefferson Medical College, 1885; member of his county and State medical societies and a Fellow of the A. M. A.; past president of the Greene County Medical Society; on the staff of the Greene County Memorial Hospital; aged 75; Nov. 10, of disease of the coronary artery.

MARSHALL BLAIR MORGAN, Huntingdon; Jefferson Medical College, 1915; aged 40; Nov. 24, at Jefferson Hospital, of biliary cirrhosis. Dr. Morgan was born in Blair County and was graduated from the Altoona High School. For 2 years following internship was resident physician to the late J. Chalmers DaCosta. Served with the A. E. F. in the Medical Corps, 27th Engineers, and located at Huntingdon in 1918. He was on the staff of the J. C. Blair Memorial Hospital, a member of his county and state medical societies and a Fellow of the A. M. A. For several years he was a member of the school board, and for many years physician and advisor to the high school football team. He was married in 1920 to Jane R. Morgan, then a graduate nurse at Jefferson, who with a son survives him.

WILLIAM T. MORGAN, Braddock; University of Maryland School of Medicine, Baltimore, 1884; for many years president and on the staff of the Braddock General Hospital; aged 76; Oct. 9, of carcinoma of the stomach.

CHARLES F. PALMER, Chambersburg; University of Pennsylvania School of Medicine, 1878; member of his county and State medical societies; for many years on the staff of the Chambersburg Hospital; aged 87; Oct. 29.

HARVEY M. RICHTER, Philadelphia; Jefferson Medical College, 1896; aged 62; Nov. 24, of pneumonia, at Jefferson Hospital. Dr. Richter was graduated from the Pennsylvania Dental College previous to entering medical school. He served his internship at the Jefferson Hospital. Upon graduating in medicine he started practice in Philadelphia and for several years served in the old Common Council. He was associate in surgery at the Jefferson Medical College and surgeon to the Philadelphia General Hospital. During the World War he rendered service in the Medical Corps of the United States Navy with the rank of commander, and was assigned to the New Bedford, Conn., Naval Station. A member of his county and State societies and a Fellow of the A. M. A.; member of the State Dental Association, the Obstetrical Society of Philadelphia, and the Philadelphia Neurological Society. He is survived by his wife.

JOHN THOMAS RIMER, Clarion; College of Physicians and Surgeons, Baltimore, 1881; member of his county and State medical societies and a Fellow of the A. M. A.; past president and secretary of the Clarion County Medical Society; aged 79; Oct. 29.

LINA D. SCHWATT, Philadelphia; Woman's Medical College of Pennsylvania, 1912; aged 68; Dec. 22. Dr. Schwatt was resident physician at the Philadelphia Hospital for Mental Diseases, having been connected with the department for 18 years. She is survived by a brother, Dr. Herman Schwatt of Denver.

RICHARD PENN SMITH, Philadelphia; Temple University Medical School, 1912; aged 59; died at Temple University Hospital, Dec. 23, from nephritis. Dr. Smith was born in Philadelphia, and was graduated from Girard College in 1892. At the time of the Spanish-American War he enlisted as a private. Following graduation from medical school he engaged in general practice until the United States entered the World War when he enlisted in the Medical Corps of the United States Army with the rank of captain. He was released by the Army that he might be permitted to serve at Jassy, Rumania, as a major with the American Red Cross. In 1920 he reenlisted in the United States Army with the rank of captain in the Medical Corps and was stationed successively in Porto Rico; the Army Medical School at Washington, D. C.; Fort Brady, Ste. Marie, Mich.; and, at Fort Sheridan, Ill. In 1928 he was retired on disability pay. Following retirement from the Army he pursued a special course in the ear, nose, and throat at the University of Vienna and returned to Philadelphia to engage in private practice. He was a member of his county and State medical societies and a Fellow of the A. M. A., and was on the staff of the Temple University Hospital. He is survived by his wife and a brother.

THEOBALD SMITH, New York City; Albany Medical College, 1883; aged 75; Dec. 11, of heart disease. Dr. Smith was president of the Rockefeller Institute for Medical Research, an eminent pathologist, honored in almost every nation. He won his greatest fame for his studies of Texas cattle fever, demonstrating that ticks were the means of transmission of this disease. His next most important research was the differentiation of bovine from human tubercle bacilli. He brought to the attention of scientists the existence of hypersensitive conditions which are now known to account for many conditions found due to allergy. He first called attention to the fact that streptococci in the udders of cows could cause milk-borne epidemics such as septic sore throat of the human being.

He was director of the pathological laboratory, Bureau of Animal Industry, Department of Agriculture, 1884 to 1895; director, pathological laboratory, Massachusetts State Board of Health, 1895 to 1915; professor of bacteriology, Columbia University Medical School, 1886 to 1895; professor of comparative pathology, Harvard University, 1896 to 1915, and since 1915 connected with the Rockefeller Institute.

JAMES PAUL SPACKMAN, Brownsville; Jefferson Medical College, 1896; former member of the Clearfield County Medical Society; recently.

LEON GABRIEL SWEENEY, Scranton; University of Pennsylvania School of Medicine, 1911; aged 49; in August.

HARRY WOODRUFF TITTLE, New Florence; Western Pennsylvania Medical College, Pittsburgh, 1895; member of his county and State medical societies and a Fellow of the A. M. A.; served during the World War; aged 61; Nov. 13, of bronchopneumonia.

GEORGE G. TURFLEY, Pittsburgh; Western Reserve University School of Medicine, Cleveland, 1879; member of his county and State medical societies; aged 79; Nov. 17.

FRANK S. VAN KIRK, Langeloth; University of Pennsylvania School of Medicine, 1895; aged 65; Oct. 17.

JOHN H. WAHL, Reading; Medical College of Indiana, Indianapolis, 1888; aged 75; Nov. 9, of pneumonia.

DAVID HEIST WENTZ, Elkins Park; University of Pennsylvania Medical School, 1883; aged 76; Dec. 27, of pneumonia. He is survived by his wife and 2 daughters.

ULYSSES SAMUEL WHARTON, Altoona; Howard University School of Medicine, Washington, D. C., 1913; member of his county and State medical societies and a Fellow of the A. M. A.; aged 49; Dec. 3.

Miscellaneous

DR. LEROY S. CHAPMAN, of Warren, was reelected State Senator at the November election.

DR. JOHN P. HARLEY has been elected president of the Williamsport Kiwanis Club for the ensuing year.

THE 15TH ANNUAL MEETING of The American Student Health Association was held Dec. 27 and 28 at the Hotel Pennsylvania, New York City.

DR. R. E. BRENNEMAN recently was appointed head of the department of roentgenology at Meadville City Hospital, Meadville.

THE PHYSICIAN'S SQUARE CLUB, Philadelphia, gave a testimonial dinner, Oct. 30, in honor of Dr. Joseph B. Wolfe, who has resumed practice after several months' illness.

DR. S. L. GROSSMAN, of Harrisburg, has left for Bayonne, N. J., where he will be urologic resident at the Bayonne Hospital for 6 months under Dr. Stanley R. Woodruff of Columbia University.

DR. JULIUS H. COMROE, of York, has been elected to the Scientific Advisory Board of the American Medical Editors' and Authors' Association. Dr. Dean Lewis, of Baltimore, Md., was selected as president.

DR. SHIELDS WARREN, Boston, delivered the annual Gross Lecture of the Pathological Society of Philadelphia, Dec. 13, on "Recent Advances in the Pathology of the Thyroid Gland."

ON DEC. 7, DR. DONALD C. GUTHRIE, chief surgeon, officiated at the dedication of the new Robert Packer Hospital at Sayre, which is modern in every detail of construction and equipment.

DR. LOUIS D. ENGLERTH, of Philadelphia, has been appointed visiting surgeon to the Philadelphia General Hospital to fill the vacancy caused by the death of the late Dr. Harvey M. Righter.

THE MÜTTER LECTURE FOR 1934 of the College of Physicians of Philadelphia was delivered, Dec. 5, by Dr. Charles H. Frazier, John Rhea Barton professor of surgery, University of Pennsylvania, on "A Review, Clinical and Pathological, of Parapituitary Lesions."

THE AMERICAN BOARD OF OPHTHALMOLOGY will conduct examinations in Philadelphia, June 8, 1935, and in New York City, June 10. Application must be filed at least 60 days before date of examination. Address communications to: Dr. Wm. H. Wilder, 122 South Michigan Ave., Chicago, Ill.

THE COLLEGE OF PHYSICIANS of Philadelphia held a dinner Dec. 15 in commemoration of the 25th anniversary of the occupancy of their building. Dr. William J. Taylor was toastmaster. The speakers were Drs. Edward B. Krumbhaar, David Riesman, George E. de Schweinitz and Alfred Stengel.

THE ANNUAL R. W. STEWART MEMORIAL ADDRESS of the Pittsburgh Academy of Medicine was delivered by Dr. W. Wayne Babcock, professor of surgery, Temple University Medical School, Dec. 11, in the Academy

rooms. His subject was "Conditions Influencing Growths and the Formation of New Growths."

A MOTORIST ABOUT TO MAKE A LEFT TURN from the center lane has the right-of-way over all traffic when he gives the proper signal and a car coming from behind must stop and allow the left-turning motorist to proceed. Discourteous motorists are creating accident hazards by not giving right-of-way to a left-turning driver.—*The Car*.

DR. EUGENE RUSH, attending pediatrician, spoke at the fourth of a series of 9 health talks being given at the Mount Sinai Hospital on "How to Keep Your Children Healthy." The lecture was given, Dec. 26, at the hospital, Fifth and Reed Sts., Philadelphia.

Dr. Sigmund S. Greenbaum, attending dermatologist, will present the next lecture to be held Jan. 23, at 8:30 p.m. His subject will be "Care of the Skin and Hair." These lectures are free to the public.

ON NOV. 1, THERE WAS HELD at the Geisinger Memorial Hospital, Danville, under the auspices of the Montour County Medical Society the first Postgraduate Medical Assembly of the 1934-1935 season. The program consisted of an operative clinic conducted by Dr. H. L. Foss and associates and the following papers: "Arthritis of the Spine," Dr. S. J. Hawley; "Gall-bladder Disease and Its Treatment," Dr. Moses Behrend; "The Diagnosis of Bright's Disease," Dr. O. H. P. Pepper; "Plastic Operations for Extrophy of the Bladder and Hypospadias," Dr. Waltman Walters.

THE ADMINISTRATORS OF THE WILL of the late L. Ashley Faught, D.D.S., presented his dental library of more than 1000 volumes to the Philadelphia County Medical Society on Nov. 21. Dr. Faught's son, Mr. Albert Smith Faught, made the presentation; Dr. Seth A. Brumm, president of the society, accepted the gift for the society and Dr. James M. Anders for the library committee. Dr. Faught, who died about a year ago, was professor of operative dentistry at Temple University for many years. He was the father of Dr. Francis Ashley Faught.

THERE APPEARS TO BE a widespread misunderstanding of the Safety Glass Law which became effective in Pennsylvania on January 1 for passenger cars manufactured after that date.

Many perplexed car owners think that they will be compelled to install safety glass in their present models. This is not true. The law is not retroactive and therefore does not apply to any car purchased prior to January 1, 1935.

A similar law went into effect in New York State on January 1 and in New Jersey it will be effective on July 1, 1935.—*The Car*.

THE SOUTHEASTERN SURGICAL CONGRESS announces the sixth annual assembly of the Congress which will be held in Jacksonville, Florida, March 11, 12, and 13.

The states composing the Congress are Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia. Since March is the most desirable month to visit the land of flowers many surgeons will no doubt combine business and pleasure and attend during this season of the year.

The completed program will be mailed about February 15. For further information address Dr. B. T. Beasley, secretary-treasurer, 1019 Doctors Building, Atlanta, Georgia.

THE OBSTETRICAL AND GYNECOLOGICAL TRAVEL CLUB, including obstetricians and gynecologists from Montreal, Boston, New York, Philadelphia, Chicago, Rochester (Minn.), and Washington, held its annual meeting in Pittsburgh, Dec. 2 to 4. Gynecological and obstetrical clinics were held at various hospitals by the following members of the Allegheny County Medical Society: Drs. C. H. Aufhammer, C. J. Barone, B. Z. Cashman,

(Concluded on page xiv.)

Difficult INFANT FEEDING . . .

When the baby must be weaned—when not enough mother's milk is available—or the digestive system is delicate, the milk problem is a major factor in feeding.

DIGESTIBILITY is perhaps the most important item. The milk must be well tolerated. Its proteins must be friable and its fat globules fine and uniform, so that digestibility will be prompt and the tendency toward vomiting and diarrhea, etc., reduced.

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MEDICAL NEWS

(Concluded from page 308.)

S. A. Chalfant, J. R. Eisaman, Thomas Evans, Jr., R. A. D. Gillis, J. L. Gilmore, R. R. Huggins, D. B. Ludwig, T. K. Reeves, Paul Titus. Social features included a buffet supper at the home of Dr. Titus; a dinner at the University Club when a paper was read by Dr. F. C. Irving, of Boston, Mass., entitled "Toxemia of Pregnancy"; and the club dinner at the Hotel Schenley.—*Pittsburgh Medical Bulletin*.

THE PENNSYLVANIA PUBLIC HEALTH DAY campaign was observed by the Lycoming County Medical Society in a very thorough manner for the third year. The Public Relations Committee of the society followed the plan outlined by the State Public Relations Committee. Six different articles on matters of public health were published in every newspaper in Lycoming County. Radio talks were broadcast over station WRAK on successive evenings, and addresses were delivered before certain clubs; the student body at Williamsport High School; and the Parent-Teacher's Association of the Williamsport Public Schools.

An address was delivered before a group of public school teachers who are organized for Physical Training and Health Education in the Williamsport Public Schools. Addresses were given at South Williamsport, Montoursville, and in other towns in the county by various members of the society.

THE COMMISSION ON CANCER of the Medical Society of the State of Pennsylvania has sent a letter to the superintendents of the various Training Schools for Nurses in Pennsylvania requesting that arrangements be made for at least one lecture each year on "The Nurses' Part in the Control of Cancer," with an additional request that each Training School for Nurses distribute a copy of the *Handbook for Nurses* to the members of the senior class each year. The *Handbook* is published by the American Society for the Control of Cancer.

The Commission further is endeavoring to interest the component county societies in devoting at least one meeting of the society during the year to the subject of "Cancer and Its Control."

The Commission is also forwarding an appeal to the Directors of Tumor Clinics in Pennsylvania for certain coöperation, to which we trust these clinics will respond.

Book Reviews

From a reviewer we expect information and advice which will guide us safely and to our profit, warning us of the poor, the mediocre, the commonplace, and inviting our attention to merit.

SYNOPSIS OF GENITO-URINARY DISEASES.

Austin I. Dodson, M.D., F.A.C.S., Richmond, Va., professor of genito-urinary surgery, Medical College of Virginia, etc. With 111 illustrations. St. Louis: The C. V. Mosby Company, 1934. Price, \$3.00.

The object of this book is to present in synopsis form genito-urinary diseases in order that medical students may readily grasp essentials. The object is ably accomplished.

TO REMIND. Sir William Bate Hardy, M.A., F.R.S., Hon. D.Sc., Hon. LL.D. The Williams & Wilkins Company, Baltimore, 1934.

This book is a biological essay based upon the second series of lectures given by the author under the auspices of the Abraham Flexner Lectureship, Vanderbilt University School of Medicine.

THE PRINCIPLES OF THERAPEUTICS. Francis Richard Fraser, M.A., M.D., F.R.C.P., professor of medicine in the University of London. The Williams & Wilkins Company, Baltimore, 1934.

This book is based upon the third series of lectures given by the author under the auspices of the Abraham Flexner Lectureship, Vanderbilt University School of Medicine.

TREATMENT BY DIET. Clifford J. Barborka, B.S., M.S., M.D., D.Sc., F.A.C.P., Department of Medicine, Northwestern University Medical School, Chicago. Illustrated. Philadelphia, London and Montreal: J. B. Lippincott Company.

This timely compilation presents to physicians "a method of prescribing diets and applying treatment by diet to health and disease; and to aid the physician and dietitian in teaching the individual patient how to make a selection of the proper amount and type of food that has been prescribed for him."

Too many physicians are unacquainted with this subject, and they will find this book most helpful.

The volume is well arranged for quick reference.

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No. 5

SURGICAL TREATMENT OF CHRONIC HEART DISEASE BY COMPLETE REMOVAL OF THE NORMAL THYROID*†

HERRMAN L. BLUMGART, M.D., BOSTON, MASS.

The purpose of this paper is to discuss the treatment of 2 major types of cardiovascular disease, congestive heart failure and angina pectoris, by completely removing the normal thyroid gland. Although sufficient time has not elapsed to place a final evaluation on this procedure, the relief afforded many patients after all other methods had proved unavailing indicates that this method of treatment is worthy of a place in our therapeutic armamentarium.

As with all methods of treatment, successful use is greatly aided by understanding the nature of the condition to be treated and the mechanisms by which the therapeutic measure exerts its effect. Although the exact nature of all the factors which operate in the patients both before and after operation is not fully understood, the following has been of assistance in the application of this therapeutic measure. The nature of the mechanism of angina pectoris is imperfectly known, but according to current belief cardiac pain arises when the heart muscle does not receive sufficient blood to supply its needs. The tendency of angina pectoris to occur in people with coronary artery disease and the precipitation of attacks by exercise and emotion, when the work of the heart is increased, is in accord with this concept. When hypothyroidism is produced by removal of the thyroid, the heart performs less work under basal conditions and consequently can withstand a greater increment of work before reaching the upper limit of oxygen supply set by the relatively fixed coronary vessels. Various aspects of this problem are being studied intensively at the present time. Con-

gestive heart failure with evidence of pulmonary engorgement, edema, and swollen liver may result from various causes; the fundamental disturbance seems largely to be an inability of the heart to pump sufficient blood for the metabolic needs of the tissues. When the hypothyroid state is induced by complete thyroidectomy, the evidence at hand indicates that, in terms of supply and demand, the demands of the tissue are so reduced that the previously inadequate supply becomes sufficient.

Even though success may occasionally attend subtotal thyroidectomy it has become apparent that nothing but complete removal of every vestige of normal thyroid tissue will insure a persistent hypothyroid state with its permanently lowered metabolic rate. Roentgen irradiation of the normal thyroid gland used alone or as an adjunct to maximal subtotal thyroidectomy has failed to be of value. Following the first complete removal of all normal thyroid tissue, performed in a patient with congestive failure and angina pectoris on December 15, 1932, Dr. David D. Berlin and Dr. Charles G. Mixter have operated on 77 patients suffering from one or both of these conditions, and the hypothyroid state has been regularly induced.

In order to evaluate the therapeutic effects of this procedure, it was important to compare the postoperative course of these patients with their preoperative condition. Consequently, patients were chosen who had proven to be intractable to treatment and were seriously incapacitated. These patients had been observed long enough for definite improvement to be attributed to the operative procedure. Each patient with angina pectoris had had attacks repeatedly at rest or attacks which regularly could be precipitated by given amounts of exercise under standard conditions. After operation, the same exercise was

* Read before the Section on Medicine of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 3, 1934.

† From the Medical Research Laboratories of the Beth Israel Hospital and the Department of Medicine, Harvard University Medical School, Boston. This study was aided by a grant from the William W. Wellington Memorial Research Fund of Harvard University.

repeated under the same controlled conditions, so that any increase in the exercise tolerance could be quantitated. These quantitative measurements, made by Dr. Joseph Riseman, have proved to be a valuable adjunct to the clinical studies in evaluating the therapeutic benefit derived by the patients. Frequent clinical observations together with exercise tolerance tests have been utilized also in evaluating the postoperative course of patients with congestive failure.

RESULTS

A brief summary of the results is presented in Tables 1, 2, and 3. Although all the operative and subsequent deaths are included, the evaluation of the clinical results is confined to those patients who were living 6 or more months after operation. In general the results show that the operative procedure has been of definite value, particularly since all these patients were chronically incapacitated and proper application of every known therapeutic measure had failed to benefit them materially. Some of the patients have been restored to economic usefulness; others have been rehabilitated partially. Even some of those who have been characterized as having "no relief" are grateful for the increased comfort and for the temporary improvement they experienced during part of the 6 months after operation. The experience gained in this first series of patients will be of value in treating subsequent cases and should increase the incidence of favorable results.

A survey of the results shows that the operative mortality was confined to the early cases. The reduction in mortality is due in part to improvements in operative technic, but to a far greater extent to experience gained in selecting patients for operation. No operative deaths occurred in patients with angina pectoris; all deaths were in patients with congestive heart failure and were due to postoperative pulmonary complications. In the last 49 consecutive cases operated upon there have been no operative deaths.

DISCUSSION

The improvement in some patients has been rather remarkable; in others, improvement has been slight or moderate; and in a small group of patients there has been little or no improvement. We have attempted to learn through this experience the criteria which will enable us to select patients who are most likely to benefit by the procedure. Although it is too early to formulate final indications and contraindications for the operation, it is nevertheless desirable to offer a tentative opinion regarding the criteria

for the proper selection based on our experience in 77 patients over almost 2 years. Unfavorable factors which incline us to advise against this operation may be summarized as follows:

1. Rapidly progressive cardiovascular disease (malignant hypertension, syphilitic cardiovascular disease, *etc.*)
2. Terminal or extremely advanced cases.
3. Low basal metabolism.
4. Active infection (rheumatic, bronchiectasis).
5. Renal insufficiency.
6. Coronary thrombosis.

Patients with congestive failure or angina pectoris who give evidence of rapidly progressive heart disease may expect periods of relatively short postoperative improvement. There is no reason to believe that total thyroidectomy retards the progression of the underlying pathologic process, whether it be arteriosclerotic involvement of the coronary vessel or rapidly progressive stenosis of one of the valvular orifices. Even though the patient experiences improvement for a few weeks or months after operation, a relapse to his former clinical condition is likely to occur because of the rapidly advancing pathologic process underlying his difficulties. For this reason, patients with malignant hypertensive or syphilitic cardiovascular disease are unsuitable subjects. It is also unwise to operate on patients who are in the terminal phases of their disease. The operative risk in such patients is increased and the preëxisting degree of myocardial damage makes recovery to a life of activity or comfort improbable. Furthermore, if the life expectancy of the patients is less than 6 to 8 weeks, operation should not be performed for the basal metabolic rate frequently does not reach the desired lowered levels until such time has elapsed.

The presence of preëxisting low basal metabolic rate represents a contraindication to operation. Three of the 4 patients with angina pectoris who showed but little clinical improvement after operation had preoperative basal metabolic rates of minus 19, minus 23, and minus 24 per cent; a fourth patient showed clinical evidence of hypothyroidism preoperatively. Our experience in patients with congestive failure and low basal metabolic rates before operation also has been less satisfactory. We have found that, regardless of the preoperative metabolic rate, practically all patients required the administration of small doses of thyroid to control the symptoms and signs of myxedema when the metabolic rate reached approximately minus 30 per cent. In patients with low preoperative basal metabolic rates a further decrease of only approximately

TABLE I
RESULTS IN ANGINA PECTORIS—21 CASES

	Status of 18 Cases 6 Months Post- operatively*	Status of 7 of 18 Cases 12 to 18 Months Post- operatively†
Marked Improvement	7 (39%)	3
Moderate Improvement ..	4 (22%)	2
Slight Improvement	5 (28%)	1
No Improvement	2 (11%)	1
Total Living	18	..

CRITERIA: Improvement was gauged by the change from the preoperative state.

Marked Improvement—No attacks, or rare attacks with the same or increased activity, or disappearance of status anginosus.

Moderate Improvement—Occasional mild attacks with the same or increased activity.

Slight Improvement—Frequent but significantly less frequent, or equally frequent but unmistakably milder attacks than before operation with the same or increased activity.

10 per cent could be permitted before thyroid medication was required. This drop in basal metabolic rate was not adequate to relieve the heart of its burden. We are, therefore, very hesitant to operate on a patient with any type of heart disease whose preoperative basal metabolic rate is below minus 15 per cent, and we refuse operation in the presence of a metabolic rate of minus 20 per cent or below. In patients with basal metabolic rates of minus 15 per cent or slightly less, other considerations are of value in deciding whether the operation may be expected to yield favorable results. If other indications of spontaneous hypothyroidism are present, such as an elevated serum cholesterol and clinical manifestations suggestive of mild myxedema, operation should not be advised. If, on the other hand, these manifestations are absent and the patient is nervous and hyperactive, operation may be of benefit.

The presence of active rheumatic fever constitutes an unfavorable factor, for there is no reason to believe that total thyroidectomy exerts a beneficial effect on active infections. It is considered inadvisable to operate in the presence of bronchiectasis because of the likelihood of post-operative pulmonary complications.

The history of previous coronary thrombosis is an indication of advanced coronary sclerosis. Under such conditions the prognosis must be guarded and total thyroidectomy may give only temporary relief of symptoms. Prognosis is

* No operative mortality. Of 3 patients who died 3 to 6 months after operation, 2 showed coronary thrombosis, 1 died of unknown cause.

† One of the 18 patients died in the 11th postoperative month of carcinoma of the stomach.

even more difficult in patients with recent coronary occlusion, and operation in such cases is definitely contraindicated until at least 6 months have elapsed and the clinical course becomes more stable.

The presence of moderate hypertension does not contraindicate the procedure and many patients with arterial hypertension have shown striking improvement in congestive failure and angina pectoris, although their blood pressure has not been greatly changed. We have hesitated to operate on patients with systolic pressures above 200 or diastolic pressures above 120.

The patients who may be expected to gain the greatest benefits from the operation are those in whom the disease has been relatively stationary or only slowly progressive over a period of 1 or more years, even though such patients may be seriously incapacitated and may have angina pectoris at rest in bed. The basal metabolic rate should be within the standard normal limits. Patients should show evidence of some cardiac reserve, such as the ability to lose the signs of congestive failure on rest in bed.

A note of warning should be added in regard to the surgical management of these patients, for this operation entails many problems not present in the more usual forms of thyroid surgery. Experience in thyroid surgery together with an accurate knowledge of the regional anatomy, particularly pertaining to the recurrent laryngeal nerves and the parathyroid glands, is of primary importance. The precautions to be exercised if

TABLE II
RESULTS IN 48 PATIENTS WITH CONGESTIVE HEART FAILURE

	Status of 34 Cases 6 Months Postoperatively	Status of 13 of 34 Cases 12 to 21 Months Postoperatively*
Marked Improvement	44%	50%
Moderate Improvement	32%	31%
Slight Improvement	3%	6%
No Improvement†	21%	13%

CRITERIA: Improvement was gauged by the change from the preoperative state.

Marked Improvement—Increase in capacity to perform work with no recurrence of congestive failure.

Moderate Improvement—Disappearance of signs and symptoms of cardiac failure with restoration of complete comfort on slightly increased activity.

Slight Improvement—Decrease in objective and subjective evidences of cardiac failure.

No Improvement—No decrease in objective evidence of cardiac failure regardless of subjective improvement.

* Four of the 34 patients died after the sixth postoperative month, one of aneurysm and 3 with recurrent congestive failure.

† Three of these 7 patients were improved for 4 or 5 months and then again developed congestive failure.

an unduly high mortality rate is to be avoided have been clearly set forth by Dr. David D. Berlin, who has developed this technic and who has been in charge of the surgical aspects of this problem. The greatest operative danger is the possibility of injury to the recurrent laryngeal nerves. Through the coöperation of Dr. Louis M. Freedman, direct laryngoscopic examination has been performed after the first lobe of the thyroid has been removed, and the hazard of bilateral recurrent laryngeal injury thereby has been largely obviated. By preservation of the parathyroid glands with their blood supply intact, the signs of postoperative parathyroid insufficiency have been infrequent and slight. Spontaneous carpopedal spasm or convulsions have not been encountered. The signs of parathyroid insufficiency have been detected early and have responded satisfactorily with calcium therapy together with viosterol in some instances.

All the patients were poor operative risks in the ordinary surgical sense. By adhering to the régime which has been described elsewhere for the medical management of these patients immediately before, during, and after operation, the operative mortality for the entire group of patients has been 8 per cent. All deaths occurred during the first 3 weeks after operation as a result of pulmonary complications and were confined entirely to the group of patients with congestive heart failure. No operative deaths have occurred in patients with angina pectoris. As a result of our earlier experience the last 49 patients with all types of heart disease have been operated upon without mortality.

The medical management of these patients after discharge from the hospital represents a particularly important phase of the problem. The causes of recurrent congestive failure in certain patients exemplify some of the precautions which should be exercised in the management of these patients after operation. One patient with auricular fibrillation ceased to take digitalis; another patient, bedridden for 2 years, who had previously suffered many attacks of congestive failure, did the housework and cooking for a family of 8 for 7 months; a third patient undertook excessive activity within a month after operation. The advisability of rest in bed until the basal metabolic rate has fallen at least 20 per cent below the preoperative level and the necessity for the same medical supervision that all severe cardiac patients require is apparent. Several patients with angina pectoris have shown a recurrence of attacks following an excessive rise in the metabolic rate after thyroid medication.

The same careful supervision is required as in

TABLE III
OPERATIVE MORTALITY IN 77 CASES

	Number	Percentage
Deaths	6*	8 per cent

all patients with heart disease, but in addition a full knowledge of the treatment and management of the myxedematous state is essential. Our aim has been to maintain the lowest possible basal metabolic rate level so that the burden on the cardiovascular system would be lessened as much as possible; at the same time the patients have been kept free from discomforting manifestations of myxedema.

All patients in this series who survived operation have developed and maintained clinical and laboratory evidences of hypothyroidism. At a basal metabolic rate level of approximately minus 25 to minus 30 per cent, patients are quite comfortable. At this level of metabolism they may show slight dryness of the skin, slow growth of hair, and a somewhat increased sensitivity to cold. So far as we have been able to determine, the mental acuity of the patients is unimpaired. Some patients tend to gain weight after operation, but this tendency is adequately controlled by dietary regulation.

Most patients show a lowering of the metabolic rate to below minus 30 per cent approximately 4 to 8 weeks after operation. At such levels discomforting symptoms of myxedema usually develop. Postoperative myxedema as seen in our patients has the same general characteristics as spontaneous myxedema except that it is never permitted to persist over long periods at extremely low levels, and so responds promptly to treatment. The symptoms and discomforts that do appear are promptly relieved by minimal doses of thyroid. Since, fortunately, thyroid medication is now available, the horrors of cachexia strumipriva, so vividly described by Kocher and others, have been absent in our experience.

The troublesome symptoms of myxedema are promptly alleviated by small doses of thyroid. Of the untoward symptoms of myxedema which indicate the advisability of thyroid medication, muscular fatigue, drowsiness, and emotional irritability are the most important. In the majority of the patients, one-fourth grain of thyroid (Armour's) daily is sufficient to maintain comfort and a metabolic rate level of between minus 25 and minus 30 per cent; in some patients, only one-tenth grain daily is necessary; while in others, one-half grain is needed. In

* All in first 28 cases; no deaths in last 49 operations.

some patients, the metabolic rate level may be maintained somewhat below minus 30 per cent; in others, a level of minus 20 per cent appears to be optimum. In several patients, thyroid medication has never been administered, for although the patients' metabolic rates were approximately minus 30 per cent or less, they were comfortable and greatly improved. The postoperative period in 1 of these patients is 22 months; during the last 16 months he has been engaged in active work, whereas previous to operation he had suffered 3 years of complete cardiac invalidism. In almost all patients, however, thyroid medication in small doses is indicated. The management of the postoperative course of these patients after

total thyroidectomy must be studied as an individual problem for each patient.

This principle of minimal thyroid dosage designed to maintain the lowest possible metabolic rate consistent with the patient's comfort should likewise prove of value in the management of cases of spontaneous myxedema complicated by cardiovascular disease.

In conclusion, it should be emphasized that this surgical method of treating chronic heart disease should be applied only in properly selected and properly prepared cardiac patients in whom all the usual medical measures have been applied with unsatisfactory results.

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ENDOCRINOLOGY*

A Present-Day Summary

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The rapidly increasing bulk of endocrine literature has reached the point where the general practitioner is helplessly trapped in a maze of contradictory and confusing conclusions. It is the purpose of this paper to present some of the generally accepted facts concerning the sources, action, and uses of certain hormones. The time allotted is much too brief to present a complete survey of recently demonstrated and interesting interglandular relationships and hormonal effects related to neoplasms.

Individuals may present symptoms resulting from (1) absent or deficient hormones, (2) excessive or increased hormones, or (3) imbalances resulting from combinations of 1 and 2. Furthermore, these may vary in intensity, duration, recurrences, curability, amenability to treatment, and many other factors.

Collip has recently shown that patients and laboratory animals treated for some time with a hormone extract may become resistant to it so that large doses administered in this nonresponsive phase are without effect. Furthermore, the injection of the blood serum of such nonreactive animals into normal animals may cause the latter also to become nonreactive to administered potent extracts. He believes the animal produces a specific opposite or antihormone principle.

OVARY

It is now universally recognized that the ovary produces 2 independent but related hormones.

One of these is the graafian follicle estrogenic hormone known variously as amniotin, folliculin, estrin, menformon, and theelin. It can be obtained from the graafian follicle, corpus luteum, placenta, amniotic fluid, and foods including potatoes, sugar beets, yeast, rice, and wheat. Its action is essentially estrogenic, producing growth and hyperemia of the uterine endometrium and musculature, characteristic vaginal changes, and hyperplasia of the ducts and connective tissue of both male and female breasts (Fig. 1). The estrin effect on the ovaries themselves is to suppress the further maturation of other primordial follicles. An antagonism also exists between large concentrations of estrin and the sex hormone of the anterior pituitary gland, which is responsible for the ripening of the graafian follicle. This antagonism is utilized experimentally and practically in inhibiting the pituitary effect on the adrenal gland. The concentration of estrin increases in the blood following ovulation, which is about midway during the intermenstrual period, until menstruation. At this time estrinemia is at its height. Shortly after the onset of menstruation, the blood concentration precipitously drops. The corpus luteum becomes active in the premenstrua after ovulation. Through the elaboration of its hormone, progesterin, the uterus undergoes further hyperplasia for the nidation of the fertilized ovum. The corpus luteum also produces estrin in increasing amounts, reaching its maximum just prior to the onset of menstruation. If pregnancy occurs, progesterin continues to be secreted by the persisting corpus

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luteum and even larger quantities are elaborated by the placenta for the purpose of maintaining pregnancy, inhibiting ovulation, inhibiting uterine contractions, producing the terminal acini in the lobules of the breast, and relaxing the pelvic ligaments.

It has been demonstrated that estrin, when injected into immature monkeys, causes vast proliferation of the layers of the vaginal mucous membrane, producing almost an adult type of mucous membrane. Lewis utilized this knowledge and brought out the newer treatment of gonorrhea in immature females. The therapeutic value of estrin in the treatment of gonorrheal vaginitis of children is now universally accepted.

Active preparations of estrin under various names are commercially available. Progestin has been prepared experimentally but is not yet available commercially.

PITUITARY GLAND

The pituitary gland has been considered the most important member of the entire endocrine chain. Certainly, from the viewpoint of histologic complexity and variety of hormones produced, it is unrivaled. It is made up of chromophobe or chief cells and chromophile cells. These latter are divided into acidophilic and basophilic. There can be no doubt that the acidophilic cells are concerned with the production of the growth

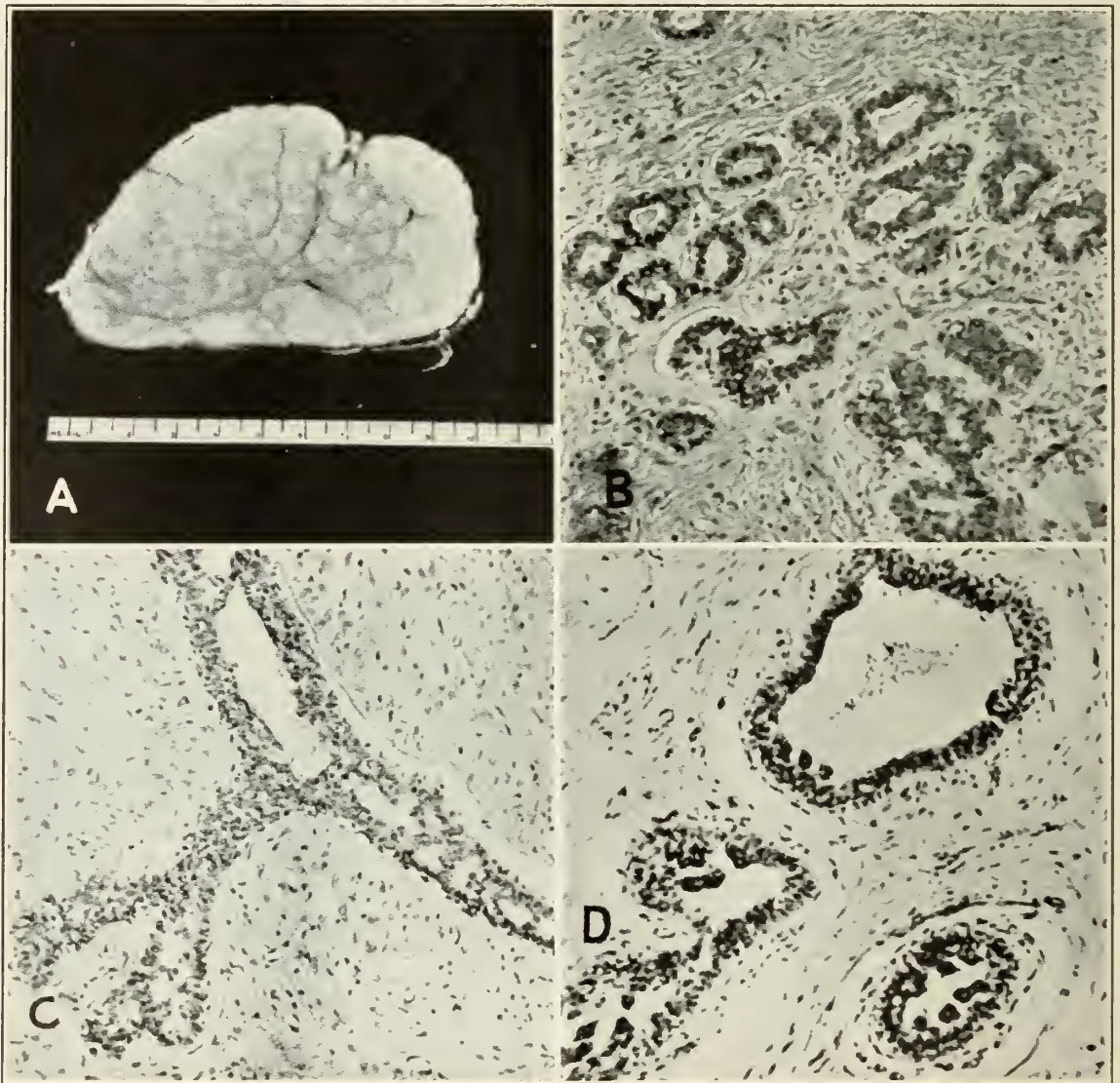


FIG. 1.—Fibro-adenoma occurring in a colored girl, age 12, before the onset of menstruation. *A* shows a slice from the mid-section of the gross specimen. The remainder of the specimen was ground and assayed for estrin and showed a concentration in excess of 5 rat units per gram of tissue. *B* is a photomicrograph from the specimen shown in *A*, illustrating a typical fibro-adenomatous area. *C*, another area, shows the connective tissue in the tumor compressing the ducts, which have undergone a marked hypertrophy. *D* is a photomicrograph of the breast tissue surrounding the tumor. The increased number of cell layers in the duct lining and the increase in periductal connective tissue surrounding the tumor is in response to a higher level of estrin in the blood. (Lewis, Geschickter, and Hartman, *Tumors of the Breast Related to Estrin*, *Am. Jour. Can.*, vol. 21, p. 828, 1934.)

TABLE 1
OVARY

<i>Hormone</i>	<i>Source</i>	<i>Action</i>	<i>Clinical Use</i>
Amniotin	Ovary	Estrogenic hyperplasia of uterus and tubes	Helpful in symptoms of natural or artificial menopause
Estrin	(a) Graafian follicle		
Theelin	(b) Corpus luteum	Hypertrophy of vagina and breasts	Functional dysmenorrhea due to hypo-estrogenesis
Female sex hormone	Placenta		
Folliculin	Amniotic fluid	In large amounts inhibits conception	Uterine hypoplasia with amenorrhea
Menoformon	Foods		
Progynon	(a) Potatoes	Raises basal metabolic rate in castrated women	Some cases of frigidity
	(b) Beets		Gonorrheal vaginitis in children
	(c) Yeast		
	(d) Rice, etc.		
	Male urine and blood		
	Pregnancy urine		
Progestin	Corpus luteum	Inhibits ovulation	Controls metrorrhagia
Corporin	Placenta	Prepares endometrium for gestation	Prevents habitual abortion
Relaxin		Maintains pregnancy	
		Promotes excretion of estrin	
		Inhibits uterine contraction	
		Relaxes pelvic ligaments	
		Produces acini in developed breast	
TESTICLE			
Testis hormone	Testicle	Stimulates secondary male sex attributes after castration	Impotence
Androthin			

hormone. Cushing and Davidoff state that it is the acidophilic cells which secrete or store a hormone which produces gigantism and is the cause of acromegaly. Associated with this is almost always an increase in the adrenal cortex, an enlarged or persistent thymus, and invariably atrophy or dysfunction of the gonads. A hyperfunction of these cells before puberty leads to gigantism—after puberty, to acromegaly. The recent work of Smith demonstrates that immature animals dwarfed by hypophysectomy grow more rapidly if thyroid extract is given in combination with the growth hormone than if the growth hormone is given alone. Sex maturity occurs at the same time as epiphyseal closure. Apparently this latter phenomenon is dependent upon gonadal development and consequent hormone function. There is an undoubted antagonism between the growth and sex hormones of the pituitary gland. The newborn child must grow into an adult. Nature is not concerned with reproduction at this time. The sex hormones must therefore be kept in abeyance during this growth period until puberty is reached. At this time sexual development is initiated through the functioning of the basophilic cells and their gonadotropic activity. The exact mechanism of the balance between the acidophilic and basophilic cells is in dispute, but Henderson believes it is a mechanical compression of the basophilic

cells by the overgrowth of the acidophilic cells. Van Dyke has recently prepared an active extract of the anterior pituitary lobe which contains the growth hormone. The research laboratory of a prominent pharmaceutical company has prepared such a therapeutic agent, but it is not yet commercially available. Should the basophilic cells overfunction, a classical entity of symptoms ensues, as was described by Cushing. The characteristic symptoms include cessation of menstruation, purplish striae on the skin, hypertrichosis of the face, hyperglycemia with glycosuria, increase in blood pressure, and low basal metabolic rate. The blood calcium and cholesterol increase, which possibly accounts for the arteriosclerosis of the aorta and other large arteries. The bones show definite osteomalacia (Fig. 2). The maturation of the follicles and subsequent luteinization is directly dependent upon the gonad-stimulating hormone of the anterior pituitary lobe. The removal of the pituitary gland suppresses the estrus cycle. The hormone ripens the graafian follicle as well as produces luteinization. It has not been satisfactorily determined if these are 2 separate hormones, as Zondek believes, or whether it is a matter of quantitative difference of the same hormone. Zondek designates the estrogenic fraction as prolan A and the luteinizing fraction as prolan B. He further be-

lieves that pregnancy urine yields only prolan B. These contentions have not been confirmed. The urine of pregnant women is the chief source of this hormone although it has been recovered from the urine of normal men and women, the urine in cases of teratoma of the testicle, hydatidiform mole, chorionepithelioma of the uterus, and from the testicle. The excretion of this substance in normal men and women has been demonstrated and averages from 5 to 10 mouse units per liter of urine. In normal pregnancies this rises to between 5000 and 20,000 mouse units per liter, although it begins to diminish after the sixth or eighth week. In the precocious sexual development of both males and females it has been found in increased quantity. It is now believed that the sex hormone of the anterior lobe itself is not identical with that found in the urine of pregnancy.

An important diagnostic contribution for the detection of chorionepithelioma by the quantitative determination of the anterior pituitary-like principle in the urine of pregnancy has just been

reported by Leventhal and Saphir. These investigators have shown that in hydatidiform mole the concentration of anterior pituitary-like substance increases progressively and rapidly after the sixth week of pregnancy, whereas it normally decreases. It may reach as high as 400,000 mouse units per liter of urine in primary uterine chorionepithelioma. They further claim that, following the expulsion of a hydatidiform mole, this quantitative test forms a prognostic index as to chorionepithelioma formation. Recurrence of chorionepithelioma or metastases may be discovered by the Aschheim-Zondek reaction, and this should determine the use of radiation therapy.

The anterior pituitary-like substance is definitely useful in cases of ovarian deficiency resulting in primary or secondary amenorrhea. In cases of functional uterine bleeding it has been used with greater success than could be accounted for on the basis of mere coincidence. Its use in habitual abortion has generally been unsuccessful although gratifying reports have been sporad-

TABLE 2
PITUITARY

<i>Hormone</i>	<i>Source</i>	<i>Action</i>	<i>Clinical Use</i>
Growth-producing Antuitrin-G	Acidophilic cells of anterior pituitary lobe	Gigantism prior to puberty Acromegaly after puberty Hyperplasia of adrenal cortex Enlarged or persistent thymus Atrophy of gonads	Endocrine dwarfism
Prolan A Gonadotropic hormone	Basophilic cells of anterior pituitary lobe Castration blood and urine	Ripens graafian follicles	Hypo-ovarianism (a) Primary amenorrhea (b) Secondary amenorrhea
Prolan B Antuitrin-S Follutein Luteinizing hormone	Pregnancy urine Urine teratoma testis Placenta Chorionepithelioma Hydatidiform mole	Produces luteinization Stimulates number of circulating cells Hyperplasia of interstitial cells of testis Descent of testis Spermatogenesis	Functional uterine bleeding Undescended testicle Aspermia
Prolactin Galactin	Anterior pituitary lobe	Galactagogue Involution of gonad	Deficient lactation
Thyrotropic	Anterior pituitary lobe	Increases thyroid function Increases general metabolism Stimulates endogenous protein metabolism and fixation of protein in tissues	Experimental at present
Hepatotropic	Anterior pituitary lobe	Enlargement of liver	Experimental at present
Pituitrin Pitocin Pitressin	Posterior lobe of pituitary gland	Antidiuresis Pressor effect Oxytocic Hyperglycemia Cholesterinemia	Diabetes insipidus Increased blood pressure through vasoconstriction Obstetric bleeding Induces labor Insulin shock

ically published both here and abroad. Its use in undescended testes has been advocated by various writers. Goldman has reported successful treatment in 2 cases. Cohn recently reported 100 per cent improvement in 6 cases treated with subcutaneous injections. Its use in aspermia following orchitis parotidea has been recorded, in which cases maintenance doses were used with regularity. Aspermia reappeared after withdrawal of the treatment, but on resumption of treatment spermatogenesis again was induced.

A third hormone relating to the secretion of milk has been definitely established. The secretion of milk in the developed mammary gland is dependent upon a lactation hormone to which Riddle has given the name "prolactin" and Turner "galactin." Hartman has been able to demonstrate the presence of a lactation hormone from the adrenal cortex to which he has given the name "cortilactin." Riddle could not confirm this. The anlage of the mammary gland is the same in both sexes. There is no histologic difference until puberty, at which time the female gland begins to enlarge due to the action of estrin. The action of estrin on the mammary gland, regardless of sex, is to produce lacteal duct hypertrophy and connective tissue hyperplasia. If sufficient estrin and progestin is injected into the castrated male to produce mammary gland development and prolactin then injected, normal lactation in the male occurs. There is ample evidence to show that estrin and progestin produced during pregnancy, whether derived from the ovary, corpus luteum, or placenta, inhibits lactation. The removal of these hormones initiates lactation. There can be no doubt that the gonad hormones exert a suppressing action upon the anterior hypophysis. The clinical use of prolactin in cases of postpartum milk deficiency appears to be encouraging and superior to hitherto known methods for stimulating lactation.

A fourth anterior pituitary hormone supposedly thyrotropic in action is in dispute. The preponderance of opinion is in favor of such a hormone. There is undoubted thyroid enlargement produced by the gonad stimulating hormone, but whether this is a mixed or distinct effect cannot be stated with certainty. The extract causes an increase in the basal metabolic rate and marked hyperplasia of the thyroid glands in rats and guinea pigs. The fact that injections of anterior pituitary extract into dogs produces an increase in blood iodine is also in accord with a thyrotropic pituitary effect.

The posterior lobe of the pituitary is composed largely of neuroglia tissue. Its actions are

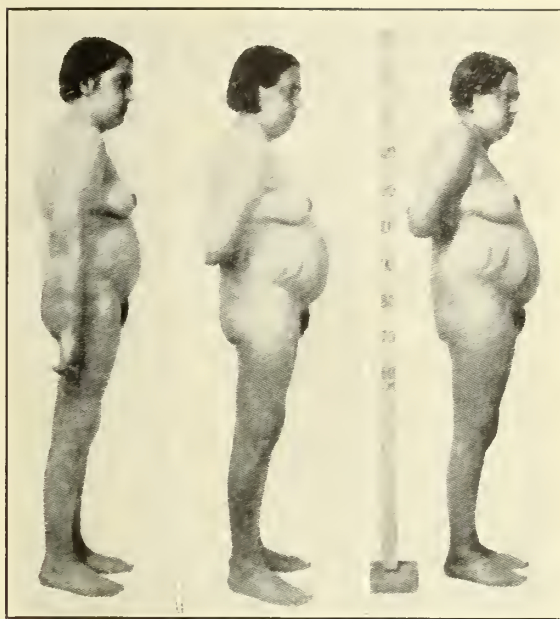


FIG. 2.—Basophilic adenoma of the hypophysis showing adiposity, purple striae, and hypertrichosis in a woman age 32. This patient also showed hyperglycemia with slight glycosuria (Cushing, H., *Arch. Int. Med.*, vol. 51, p. 487, 1933).

concerned with its antidiuretic, pressor, oxytocic, carbohydrate, and fat effects. It is of proved value in the control of diabetes insipidus, where it occasionally ameliorates excessive polyuria. Through its vasoconstrictor effect it produces a sharp and sustained rise in arterial blood pressure. Its obstetric value as an oxytocic is well established. The carbohydrate effect is somewhat complicated. Injections of pituitrin produce hyperglycemia and glycosuria. The removal of the hypophysis leads to a pronounced hypoglycemia. These effects are probably not direct but are mediated through the adrenal gland (Fig. 3). Injections of pituitrin cause destruction of the neutral circulating fat by the liver. In pituitary deficiency such fat is not destroyed but is free to be deposited, leading to adiposity. Hypopituitarism is frequently associated therefore with adiposity.

THYROID GLAND

The chief function of the thyroid hormone has been known for a long time to hasten the chemical reactions concerned with glandular, muscular, and mental activity. Other functions have recently been demonstrated. The relation of the thyroid gland to the formation of cholesterol gall stones and an explanation for the mechanism involved has been advanced. It has been recognized clinically that increased blood cholesterol levels occur in hypothyroid states. An increased concentration of this blood lipid precipitated in the biliary apparatus would give rise therefore to

the formation of pure cholesterin stones in cases of myxedema. Hurxthal has shown that in toxic thyroid states the blood cholesterol is low and can be brought to a normal level by a subtotal thyroidectomy. There seems to be a seesaw relationship between basal metabolism and blood cholesterol in toxic goiter. When one is high, the other is low, and *vice versa*. Hypercholesterolemia may be considered therefore as a rational indication for thyroid administration when other causes can be excluded. The blood cholesterol values, furthermore, are far more reliable than basal metabolism readings, especially when suspected thyroid dysfunction occurs in children.

The work of Lerman and Salter indicates that the thyroid produces 2 hormones—thyroxin and diiodotyrosin. Both have calorigenic activity when combined in the protein molecule. Thyroxin in pure state is metabolically active but diiodotyrosin, if administered in pure state to myxedema patients, produces no definite calorigenic response.

The value of total thyroidectomy in cases of angina pectoris was recently reported by Blumgart. Thyroid hormone increases the demand on the heart. The suppression of this demand by surgical reduction of the basal metabolism has produced encouraging results in his series of 60 reported cases.

Total thyroidectomy definitely improves diabetes mellitus. The thyroid gland is antagonistic to the pancreas. Whether this is a direct antagonism or mediated through the adrenal or other glands is not known. Wilder does not recommend the procedure as a treatment for diabetes, even though the patient's tolerance for sugar is greatly improved, because of the uncomfortable athyroid asthenia and sensitiveness to cold.

PARATHYROID GLANDS

The parathyroid glands are concerned principally with the regulation of the blood calcium level. The complete removal of these glands leads to tetanic death in a few days. The administration of the extract relieves tetany, increases the blood-serum calcium level, increases blood coagulability, and decreases the bleeding time. Hyperparathyroidism occurs more frequently than hypoparathyroidism. It assumes many different forms and may lead to many conditions. These include spontaneous fractures, bone swellings (especially of the jaws), pain in the bones, marked polydipsia and polyuria, recurrent renal calculi, and marked asthenia with muscle wasting. It must be distinguished from other bone diseases including senile osteoporosis. Paget's disease, osteomalacia, solitary cysts, solitary benign giant-cell tumor, osteogenesis im-

TABLE 3
ADRENAL

Hormone	Source	Action	Clinical Use
Adrenalin Epinephrine Suprarenalin	Synthetic Medulla adrenal gland	Pressor effect Hyperglycemic effect Stimulates sympathetic nerve endings	Controls vasomotor response Insulin shock Antispasmodic effect
Cortin Eschatin	Adrenal cortex	Salt and water metabolism Blood chemistry (a) Cholesterin (b) Nonprotein nitrogen (c) Chlorides	Addison's disease Neurasthenia
PARATHYROID			
Parathormone	Parathyroid gland	Raises blood calcium level	Tetany Controls bone formation
THYROID			
Thyroxin Diiodotyrosin	Thyroid gland	Increases basal metabolic rate Stimulates sympathetic nervous system	Myxedema Cretinism Amenorrhea Obesity
THYMUS			
Thymic	Thymus	Growth	
PANCREAS			
Insulin	Island of Langerhans	Hypoglycemia	Diabetes mellitus

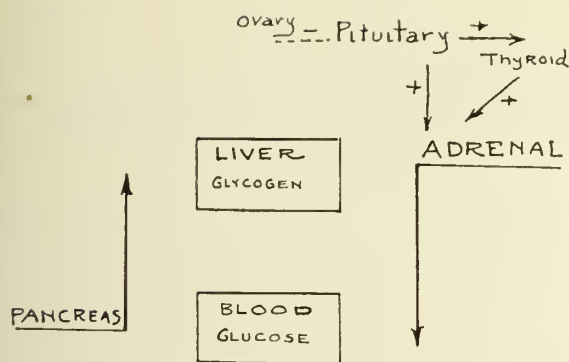


FIG. 3.—Chart showing endocrine mechanism in carbohydrate metabolism. Pancreatic insulin removes blood glucose, storing it as liver glycogen. Adrenalin mobilizes liver glycogen as blood glucose in a reverse manner. The pituitary and thyroid hormones stimulate adrenalin and suppress insulinogenesis leading to hyperglycemia and glycosuria. Estrin in high concentration suppresses the pituitary function and in turn inhibits the adrenal function, leading to a reduction of the blood sugar.

perfecta, multiple myeloma, metastatic malignancy, and basophilic adenoma of the pituitary gland. The disease is easily cured by surgery or irradiation of the glands if diagnosis is made early.

ADRENAL GLAND

The adrenal gland has recently enjoyed much of the endocrine spotlight due to the discovery of the cortical hormone and its proved value in the treatment of Addison's disease. Its isolation in pure crystalline form has been reported by Kendall. The variety of functions ascribed to this hormone is wide and apparently endless.

It is intimately associated with the salt and water metabolism of the body. Adrenal insufficiency causes a loss of water, and depletion of the sodium ion and blood chloride with an increase of the potassium ion in the blood. The individual therefore becomes anhydrous with a loss of plasma volume resulting in a relative increase of hemoglobin and red blood cells.

A second function is concerned with fat metabolism. Injections of the cortical hormone produces a fixation and storage of the lipoids in the tissues with a consequent drop in the blood cholesterol. In Addison's disease there is utilization of this stored fat so that the individual becomes asthenic while the blood cholesterol rises. In hyperplasia or tumors of the cortex there is a gain in weight.

A third function has to do with the utilization of oxygen. Goldzieher has shown that, in infants born with adrenal hemorrhage, there is air hunger which is relieved by the administration of cortin. The fetal adrenal is mostly cortex and is extremely large—relatively and absolutely. This is interpreted as an adaptation to the low oxygen tension of the fetal blood. Physiologic involution of the cortex after birth

is a response to the increased oxygen supply. Infants born with cardiac malformations, if there is a subnormal pulmonary oxygen supply, are protected from internal cellular asphyxia by the failure of cortical involution.

A fourth function has to do with sex although the specific hormone has not been isolated. Adrenal cortex tumors in children lead to puberty precox. In the adult they lead to virilism and hirsutism. Adrenal insufficiency causes cessation of estrus, degeneration of testicles, abortion, and cessation of lactation.

The beneficial effects of cortin in Addison's disease are well established. In a few cases of asthenia and hypo-adrenia it has been used with improvement. The action of adrenalin, the hormone of the adrenal medulla, on the sympathetic nervous system is too well known to bear repetition. It is summarized in Table III.

The use of hormone therapy in edema, migraine, essential hypertension, neurasthenia, and many other conditions is now being tried. Sporadic successes in these conditions are reported, but final uniformity of opinion is still lacking.

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ABSTRACT OF DISCUSSION

LEO H. CRIE (Pittsburgh): Endocrinology is a subject which has been rapidly gaining an important place in the practice of medicine. Because it is fraught with a great deal of theoretical speculation, the available literature—interesting and stimulating though it be to the physiologist—can do little more than bewilder the practitioner who is anxious to derive from it information of practical value to his patient. Dr. Denison has performed the service of condensing and interpreting the rôle of the endocrines in the daily practice of medicine.

It is the general practitioner who comes first in contact with patients exhibiting a variety of endocrine disorders. It is therefore important for him to know what glandular extracts are effective and which preparations are useless. Deluged as he is with tons of literature distributed by detail men, he finds it increasingly difficult to separate the wheat from the chaff. The glands of internal secretion are small laboratories, each concerned with the production and distribution of exceedingly small amounts of enormously potent chemicals known as hormones—chemicals which, through their effect on each other and on the bodily activity, determine our make-up, our physical, mental, and sexual state. Disturbances in the quality, quantity, or distribution of these hormones constitute clinical entities, some of which, like diabetes mellitus and thyroid disease, are easily recognizable. Others, however, require finer tests for accurate diagnosis.

When a diagnosis has been made, the treatment is relatively easy provided it involves the administration of a glandular extract, the active principle of which has been isolated and manufactured. It is in this connection that it is important to have a clear and direct knowl-

edge of what preparations are potent. Of these the following may be named:

1. Thyroxine in thyroid disease.
2. Insulin in diabetes.
3. Adrenine in asthma, shock, and local surgery.
4. Anterior pituitary extract in dwarfism.
5. Posterior pituitary lobe extract in diabetes insipidus, obstetrics, and ileus.
6. Cortenin (adrenal cortex) in Addison's disease.
7. Parathyroid extract in tetany.
8. Theelin (progynon) or folliculin—the ovarian follicle hormone—in certain disorders of female reproductive organs.
9. Progestin (extract of corpus luteum) also useful in the same type of derangements.

The extracts mentioned have been studied carefully. Their action, for the most part, is well known. Our knowledge of the others is still highly theoretical and our discussion still limited to the field of speculation.

The most that can be said is that they hold great therapeutic promise for the future.

WILLIAM D. STROUD (Philadelphia): I noticed on Dr. Denison's slide that the posterior pituitary lobe extract has been used in reducing blood pressure. I wonder what his experience has been with this in the treatment of high blood pressure.

DR. DENISON (in closing): The extract of the posterior lobe of the pituitary has not been used at all in essential hypertension. Some work recently done at the Cleveland Clinic shows that hypertension may be due to too much adrenalin in the blood stream. If there is a check mechanism in the ovary, it is possible that too much adrenalin in the blood stream may be controlled by any of these ovarian agents. They act on the pituitary gland, which, in turn, checks the high blood pressure through adrenal suppression. Experiments are being conducted at present, but it is too early to say what the definite and final effect will be in essential hypertension.

RUNNING EARS AND THE PRACTICE OF MEDICINE*

GEORGE MORRISON COATES, M.D., PHILADELPHIA

The large subject indicated in the title can be only outlined within the time limit assigned to its presentation; to treat it fully and in detail would require a whole volume.

Running ears, acute and chronic, must be considered from 4 different aspects, namely: (1) Their prevention, (2) danger to life, (3) as foci of infection, (4) preservation of function.

How may running ears be prevented? To accomplish this their causes must be considered. These are the acute exanthemata, especially scarlet fever and measles, the omnipresent acute cold and tonsillitis, grip and influenza, lack of bodily resistance, a "run-down state," undernourishment, swimming and prolonged exposure, improper nose blowing and traumatism, acute and chronic sinus infections, and infected tonsils and adenoids.

When acute infectious diseases are brought under control and abolished by the use of preventive sera, this cause for the running ear will disappear. Early discovery of these cases, efficient control of their spread by effective quarantine measures, and proper hygiene for the nose and nasopharynx in the infected patient will greatly limit the incidence of acute middle-ear disease. Proper prophylactic measures include mild alkaline gargles such as the officinal liquor antisepticus alkalinus and Dobell's solution, nasal drops of 2 to 5 per cent solution of one of the colloidal silver preparations, including a prelim-

inary shrinking, when necessary, with spray or drops of 1 per cent ephedrine or 1-8000 epinephrine solution, and the instillation of a bland oil. Secretions should be sucked backwards into the throat and expectorated, or in infants removed by cotton twists or with a medicine dropper; they should never be forcibly blown from the anterior nares as this may force infection into the eustachian tube and middle ear. Identical measures are employed in acute coryza and tonsillitis, grip and influenza, and atropine may be given in small doses to limit secretion if this is excessive. Bodily resistance should be built up by a well-balanced and nourishing diet containing proper amounts of the vitamins A and D. The prophylactic administration of "anti-cold" vaccines undoubtedly increases resistance to certain infectious agents in some individuals although it can never be relied upon. Infected tonsils and, more particularly, infected adenoid masses should be removed irrespective of the age of the patient if there is an undue susceptibility to acute upper respiratory infections, especially if these recurrent attacks are accompanied by middle-ear infection. Improper nose blowing is that form characterized by pinching the nostrils and suddenly opening them in response to a strong blast of air. This is the usual method, and it is wrong at all times. The nose should be blown gently, with either one or both nostrils freely open. St. Clair Thompson characterizes this as *a la paysan*—the countryman's method. Particularly should this be practiced after swimming or

* Read before a General Meeting of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 3, 1934.

surf-bathing. Swimming with the face under water and deep diving, whether in grossly infected water or not, is very prone to be followed by middle-ear infection. It is not the water that enters the external ear that is important, unless a drum perforation is present. In such a case an ear plug of oily cotton or wool will give reasonable safety. It is the fluid entering the eustachian tube that usually causes damage, and no device can guard against this. It should not be forced by blowing. Prolonged exposure to water, even though warm, is an important factor because it lowers the body temperature and therefore the bodily resistance, even though temporarily, to pathogenic organisms already present on the nasal mucosa or in infected sinuses. Prophylaxis also includes the proper care of chronic nasal infections and nasal abnormalities that may predispose towards chronicity or prevent cure.

The internist, the general practitioner, and the pediatrician must know that even the middle-ear infection, most mild and innocuous in appearance, is a potential destroyer of life and is therefore to be taken seriously. A middle-ear infection, unless very virulent in type, is not as a rule dangerous if discovered early and treated adequately; if neglected it may become so. Nothing can be done without proper diagnosis, and physicians without easy access to one adequately trained in otology should become competent to diagnose and treat these acute middle-ear infections. At the beginning of an attack treatment directed to the nose and the pharyngeal end of the eustachian tube may be sufficient, but when pus collects in the tympanic cavity in quantity enough to cause bulging or distention of the drum, myringotomy or incision is indicated. Mere redness of the drum is *not* an indication, but a warning. The dangerous possible sequences of these infections are acute mastoiditis; labyrinthitis; septicemia through infection of the lateral sinus, jugular bulb or internal jugular vein, or through the petrosals to the cavernous sinus; extradural abscess; meningitis in one of its several forms; brain abscess, either cerebral or cerebellar; invasion of the deep structures of the neck, the retropharynx, and the mediastinum.

Not all of these can be prevented by prompt surgical care of the middle-ear infection but their incidence may certainly be minimized. The infection may extend directly to the great blood vessels or meninges from the middle ear without the sequence of a mastoiditis, and the surgical attack upon the mastoid may fail to cure because the infection progresses beyond this structure before the diagnosis of acute mastoiditis is possible. This is especially true in the case

of infants and young children in whom dehiscences are more numerous and the usual normal barriers of adult development do not exist. On the other hand, too precipitate and inconsiderate surgery may spread the infection rather than limit or eradicate it. It should not be forgotten that any of these complications, including mastoiditis, may occur in atypical cases with little or no evidence of middle-ear infection such as earache, impaired hearing, bulging, or perforation of the drum. A drum properly incised at the proper time not only heals more readily than if allowed to perforate spontaneously, but the duration of pain is thereby curtailed and the probability of complications lessened. Every acute running ear has some concomitant mastoid infection. It may be only in the mastoid (or tympanic) antrum or it may extend to other mastoid cells. This extension of the middle-ear infection is characterized by antral or tip tenderness and often by a hazy roentgenogram, but it is not necessarily a surgical mastoiditis at this stage.

Chronic middle-ear infection is even more dangerous, through its possible complications, than is the acute variety. A chronic running ear is often associated with chronic mastoiditis, which may infect some vital structure such as the meninges. In these cases the discharge is often scanty and it may not be foul smelling. It may be absent for long periods of time, but more often it is present although not in enough quantity to attract the patient's notice. Although these are dangerous ears they do not necessarily call for immediate surgery. Careful, conservative treatment with due consideration to the removal of causative or complicating factors will cause many of them to dry up, but if this result cannot be obtained the alternative is a radical mastoid operation, which makes the patient reasonably immune to serious complications although it may not cure the discharge entirely. These complications, which are all of a serious nature, may follow either acute or chronic middle-ear suppuration. They occur usually from direct extension of the suppurative process by necrosis through the containing bony wall or through the smaller vessels perforating these bony walls. Such complications, often fatal, include cerebral or cerebellar abscess; extradural abscess; thrombophlebitis of the lateral sinus, the jugular bulb, the internal jugular vein, the petrosal sinuses, and the cavernous sinus; involvement of the pneumatic cells of the petrous apex, or petrositis; labyrinthitis; extra-ocular muscle palsies; meningitis; extension through a mastoid tip perforation into the deep facial planes of the neck, even to the mediastinum; retropharyngeal ab-

sepsis; and septicemia with its attending danger of lodgment of infected emboli in various bodily vital structures. The running ear, *per se*, does not kill the patient; it is the complication that does.

From the standpoint of focal infection originating in the middle ear, there is less to be said than in the case of infections of the tonsils, teeth, and nasal accessory sinuses. An acute running ear does cause a toxemia; a bacteriemia with secondary foci of infection may develop, but usually only when one of the large venous vessels becomes involved. Nephritis, endocarditis, or arthritis may be the result or, in the case of infants, various gastro-intestinal disturbances, characterized by the various terms of cholera infantum syndrome, athrepsia, dehydration, malnutrition, *etc.* That such a relationship does exist even in mild cases of middle-ear infection has been amply proved, but whether it exists to the extent claimed by competent observers in other sections of the country is still a controversial issue. The ears of any infant exhibiting the symptoms of increasing fever, diarrhea, dehydration, malnutrition, and decreasing weight should be subjected to a searching scrutiny. If any degree of infection is found, the drum or even the mastoid antra should be opened.

For such chronic diseases of possible focal origin as arthritis, nephritis, endocarditis, some of the anemias, neuritis, and neuralgia, it is obvious that an *acute* middle-ear infection cannot be held accountable. It seems equally true that a chronic middle-ear infection seldom acts to any great degree as a focus for chronic infection elsewhere in the body. Owing to the fact that the suppuration takes place in a very small bony cavity with probable local walling off by fibro-connective tissue, little absorption of the products of infection takes place, although at times the elimination of such an infection apparently causes the amelioration of signs of inflammation in other parts of the body such as, for instance, a neuritic pain in the shoulder or arm. Nor does the presence of a chronic running ear often seem to affect adversely the general bodily health of the average individual so afflicted. Although chronic middle-ear and mastoid infection, characterized by persistent, continual, or intermittent aural discharge, may at times be an actual focus for disease in other parts of the body, it cannot be placed in the same category as the teeth, the tonsils, or the nasal accessory sinuses.

Loss of function due to running ears may well be considered under 2 headings: Damage to hearing caused by the infection in the middle ear, and damage to hearing or other structures

resulting from one or more of its complications. Loss of hearing acuity from a single attack of acute middle-ear suppuration, properly treated, is usually so small as to be negligible. Incision of the drum does not in itself cause deafness, although a drum that is allowed to rupture spontaneously is much more apt to lead to a future hearing defect. With repeated attacks of suppuration, appreciable loss of hearing in the lower register may be expected, but total deafness, even with much of the ear drum destroyed, does not result unless the labyrinth has been involved. This rule holds true in chronic suppuration also, although in time, due to destruction of the drum and ossicles and the covering over of the round and oval windows with dense granulations or cicatricial tissue, hearing may become bad. Proper prophylactic attention may prevent many of the most serious results in this respect. This means prompt and adequate care at the onset of the disease and proper measures to prevent its recurrence. All practitioners of medicine should be alive to the possibility of hearing defects, sometimes not apparent until later in life, developing from this cause, and all measures possible should be taken for their prevention. There are many thousands of such cases now in the United States, and little can be done for them once they become established.

Loss of hearing, much more serious in character, arises from extension of the infection to the cochlear portion of the internal ear. If the membranous labyrinth is actually invaded, complete and irremediable deafness promptly ensues. In serous labyrinthitis the deafness is usually not absolute but is often badly disabling. Nerve deafness, loss of high notes and of bone conduction, usually accompanies, after a shorter or longer interval, the middle-ear deafness mentioned in the preceding paragraph. It is toxic in origin and is not complete. Paralysis of the extra-ocular eye muscles usually disappears if the patient survives the intracranial complication that causes this distressing diplopia, but optic neuritis does not always disappear with the removal of the cause of intracranial pressure. Septic emboli may leave a crippled heart or joint or genito-urinary system, and a disfiguring facial paralysis often is permanent unless corrected by very competent neurosurgery. The effects of destruction of the vestibular portion of the internal ear, although very distressing by reason of its accompanying vertigo and disorientation, are not permanent or even of long duration. The destroyed labyrinth, however, never regains function. The patient gets along nicely after a time with only one, or even no, balancing mechanism in the ear

and learns to depend upon his accessory balancing powers such as visual, tactile, arthroclial, and muscular.

An acute middle-ear infection occurs from an infected focus in the nose or pharynx, or from external traumatism. The moral should be: Remove such causative foci before damage is done and give instruction in proper nose blowing. Children's ears should not be boxed. Do not allow your patients to use anything with which to scratch the ear.

Every chronic discharging ear is the result of one or more acute suppurations; it cannot start as a chronic infection. The acute infection is usually first seen by the pediatrician or the family physician. If he is alert to recognize it and skillful in his treatment of it, many of the cases discussed under the original 4 headings will be cared for. There will be fewer of these cases; there will be less recurrence and less chronicity, less disability from loss of function of various kinds, and, most important of all, much less loss of life from a disease that starts as a simple middle-ear infection.

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ABSTRACT OF DISCUSSION

FREDERIC S. HUNTINGTON (Scranton): We are prone to think of acute middle-ear infection and earache as synonymous, and it is well to be reminded that in the infant and small child the localization of pain is not entirely possible. I have seen a child age 6 say that the pain was in his throat, which was entirely negative, and complain not at all of an ear drum which was markedly inflamed and bulging. Nor is it possible to rely on the classical signs such as rolling the head from side to side, pulling at the ear, lying with the affected ear against the pillow or mother's breast. Likewise during examination the patient is usually crying and pressure over the tragus, therefore, is unrevealing. In other words, the examination of the small patient is not complete until the ear drums have been examined with an otoscope.

For some time I have used the following procedure in the treatment of acute upper respiratory infections, particularly that type of head cold beginning with a thin mucous discharge which rapidly becomes purulent or mucopurulent. Two formulæ are involved. The first contains 1 dram of 1:1000 adrenalin chloride in 1 ounce of 10 per cent neosilvol solution. The second contains one-half grain of iodine and 1 grain each of camphor, menthol, and thymol in 2 ounces of liquid albolene. Treatments are instituted on a 2 or 3 hour basis. The first period consists in the instillation of the iodine drops; the second period the neosilvol drops; the third consists in gently, and the gently is stressed with an actual demonstration to the nurse or parents, douching each nostril with warm salt solution after the manner described by Kerley in the treatment of sinusitis in children. This is done with a medicine dropper or an ear syringe. Deep pressure may be applied after douching, thereby removing more of the mucus. As gargling is impossible the throat is swabbed 3 times a day with

hydrogen peroxide and immediately afterwards with alkaline antiseptic solution. Many cases which have had the advantage of judicious neglect respond to this treatment in a most gratifying manner.

We have all seen drums which were inflamed but not bulging yield upon incision a little blood and only a drop, if any, of serum; the inflammation subsides in 24 to 48 hours and in a week's time it is difficult to tell where paracentesis was done. On this point I should like to ask Dr. Coates if it is not better to incise the doubtful drum, which though markedly inflamed is not bulging. The ear is obviously already infected and we are anxious to avoid the dire complications he has mentioned—mastoiditis, lateral sinus infection, and chronic running ear. When is it dangerous to be conservative?

In the treatment of chronic running ears Dr. Coates has not relegated himself to either of the schools so succinctly described by John Lovett Morse as the "washers" and the "wipers." I should like to ask Dr. Coates if there is actually the great danger in syringing the chronically discharging ear that the adherents of the latter school would have us believe?

DR. COATES (in closing): Routine examination of the ears of all infants should be obligatory. Often one cannot tell from the symptoms presented by the patient whether there is anything the matter with the ear or not. Examination of the ear of the infant by the attending physician should be a matter of routine.

Dr. Huntington's method of prophylaxis is excellent.

As to myringotomy or incision of the drum in cases in which there are slight local indications in the ear, with a drop or 2 of blood or serum, the ear may be infected or perhaps not at all. I cannot believe that it is only those cases which are subsiding in which good results are obtained. In cases which have been going on for weeks, simple incision of the drum with possibly a drop of serum obtained has caused the temperature and all the other symptoms to disappear over night. There is such a thing as infection in the ear which does not produce the signs of middle-ear involvement.

Incising the red drum has always been a matter of controversy. We do not advise incising the drum simply because it is a little pinkish; but I do teach my students, graduate and undergraduate, to incise the ear drum in case of doubt. If there is any degree of bulging, if the drum is markedly red, and if there are symptoms indicating that the drum should be opened, incise freely. With proper precautions it will do no harm. Incision of the drum in cases in which there is no infection may do harm if it is done improperly. I have seen patients upon whom myringotomy was done without adequate reason, and there was discharge 3 to 5 days later. It was probably due to infection from improperly performed operations. If one has opportunity to examine the ear daily, incision may be delayed, but I agree with Dr. Huntington that in doubtful cases the ear drum should be incised. Sometimes the middle ear will fool one. It is with great chagrin that I remember more than 1 case in which the patient was advised that the drum did not need opening, and by the time I returned to my office there was a telephone message that the drum had ruptured. That indicates how rapidly suppuration can develop.

As to the "washers" and "wipers," both methods have their uses. Washing is all right in certain types of cases. In cases in which there is a central perforation there usually is no cholesteatoma. Cholesteatoma causes erosion of the bony wall. If such an ear is syringed

with a watery solution the cholesteatoma absorbs the moisture and blocks drainage, and that means danger. If such an ear is syringed, alcohol or ether or some dehydrating solution should be used. For the central

perforation syringing does no harm. The middle-ear mucosa, however, does not tolerate a watery solution, and the ear should be carefully dried not only with a swab but by instilling alcohol, ether, or any drying solution.

BLOOD TRANSFUSION—THE CLINICAL APPLICATION*

ALAN P. PARKER, M.D., PHILADELPHIA

Since the discovery of the circulation of blood by William Harvey in 1613 the safe transfusion of blood has been the goal of investigators. The past quarter of a century has witnessed the work of Crile, Lewisohn, Jansky, Moss, and others in establishing transfusion as a relatively safe and simplified procedure. So rapid have been the strides toward perfection that today it is looked upon too frequently by many as a method with all advantages and few possibilities of harm, a panacea for all ills, and a responsibility to be shared only by the inexperienced laboratory technician and equally inexperienced intern.

It is not the purpose of this paper to condemn the procedure, but rather to sound a note of warning against the complacent attitude which many are prone to adopt toward a method apparently so benign and simple, by briefly reviewing the indications, the reactions, and the methods of transfusion.

INDICATIONS

There are few therapeutic agents which have experienced a more widespread application in the treatment of disease than blood transfusion. Yet the specific indications are few. Polayes and Morrison in a study of 1500 blood transfusions in 1000 cases conclude:

(1) In 71.7 per cent the results were of doubtful benefit or had no effect whatever.

(2) In 23.3 per cent some adjuvant beneficial effects were derived.

(3) The reaction to the transfusion was unfavorable and the result harmful in 3.7 per cent.

(4) The transfusion was apparently contributory to death in 0.9 per cent of the cases.

(5) Blood transfusion proved to be a life-saving procedure in 1.4 per cent of the cases, and most of these were patients who suffered a sudden loss of a large quantity of blood.

These percentages seem to be somewhat pessimistic. It is not my desire to discuss in detail the indications for transfusion or to mention many conditions in which transfusion is of clinical value and should be used, but simply to call

attention to a few salient points. The inestimable value of transfusion in patients with severe blood loss is recognized by all workers and much emphasis to support this is found in current literature. In acute hemorrhage no means of replacement of the blood loss, if indicated, is as prompt as blood itself. The danger of renewing the hemorrhage by raising the blood pressure, *e. g.*, in hemorrhage from a peptic ulcer, is not borne out by clinical experience. It is safe to perform transfusions upon these patients even before the bleeding has entirely ceased. The re-infusion of the free blood from the abdominal cavity in ruptured extra-uterine pregnancy and in rupture of the spleen from external violence is a valuable procedure, and we have never witnessed any reaction or evidence of infection from its use. In uncontrolled bleeding the benefit often extends beyond merely replacing the blood loss by a more or less specific action in controlling the hemorrhage. The persistent bleeding of purpura hemorrhagica and hemorrhage of the newborn is often strikingly controlled by transfusions. A patient was seen recently with an uncontrolled epistaxis of 10 days' duration, the etiology of which was unknown. When all other measures failed to control the condition until the red cell count was below 2,000,000, a direct transfusion of 500 c.c. was given: the bleeding ceased immediately, with no recurrence.

In surgical shock, either traumatic or postoperative, particularly if associated with blood loss, the value of transfusion amounts to a life-saving measure, maintaining the blood pressure equilibrium better than saline and glucose infusions. Crile has emphasized the value of relatively large transfusions in this group.

In the larger class of cases in which transfusions are of distinct benefit, though not immediately life saving, there are the secondary anemias due to various causes, the intoxications, and the toxemias. It is an important aid in the treatment of the infectious diarrheas in infants. In primary anemia, leukemia, and septicemia, transfusion has proved to be no more than of transitory benefit, but it should be used when indicated to combat the anemia. The use of the specifically

* Read before the Section on Surgery of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 2, 1934.

immunized donor in the treatment of septicemia is not found to be of any practical value, the period of immunization requiring too much time and the effect upon the recipient of very questionable advantage. Greater benefit has recently been proved by use of the nonspecifically immunized donor in septicemia. As a preoperative fortification in long operations associated with considerable shock, blood transfusion acts as a valuable adjunct. An especial value is seen in reducing the coagulation time, minimizing the tendency to postoperative hemorrhage in patients with common duct obstruction, familial jaundice, Banti's disease, and purpura hemorrhagica.

In the treatment of agranulocytosis and infections characterized by a leukopenia and a severe hyperregenerative shift, Strumia *et al.* have shown that greater benefit may be derived from the administration of leukocytic cream than by transfusion alone, with the additional advantage that the reaction hazard is eliminated. The use of transfusion indiscriminately, with little or no direct indication and no expectancy of benefit, but simply "as something else to try" should be discouraged.

REACTIONS

The literature is replete with discussions advocating the use of either unmodified or citrated blood in transfusions, the advocates of each being emphatic in their choice. However, there is ample proof in the current literature that reactions are more common after the use of citrated than after whole blood. Hartman, Hoffman, Joannides, and many others believe in the non-toxicity of sodium citrate and conclude that other factors must be held responsible for the reactions.

On the other hand many more observers decry the use of citrate in their support of the direct method of transfusion. Bernheim, after citing several fatalities, is emphatic in his condemnation. Unger accuses the citrate method of increasing the fragility of the red cells, reducing the phagocytic and opsonic index, destroying platelets, and developing anticomplementary properties in the blood. Lederer found 50 per cent more reactions with citrate in 2 series of 100 each, Landon showed 5 times as many reactions, and Meleny 64 per cent more.

In our own series there have been 14 reactions by the direct method in 112 cases, as compared with 9 reactions in 56 patients where the indirect method was employed. When reactions occurred by either method the severity seemed similar and we are in accord with opinions that other factors should be held liable, and in every transfusion,

particularly in the very sick where reactions are most dreaded, one should endeavor to eliminate these factors.

Polayes and Lederer in a recent study of 2500 transfusions outline the many causes of reaction which are well worth quoting and emphasizing as follows:

- I. Incompatibility between donor's and recipient's blood which may be due to 3 reasons:
 - (a) Errors in grouping the blood due to the following causes, in order of importance:
 1. Poor technic.
 2. Use of low titered or contaminated serum.
 3. Weak agglutinins or agglutinogens in the recipient's blood.
 4. Pseudo-agglutination.
 5. Auto-agglutination, cold agglutination, and sub groups.
 6. Anomalous or atypical agglutination.
 7. Contamination of recipient's blood by bacteria.
 - (b) Indiscriminate use of the universal donor.
 - (c) Immune isobodies and hemolysins.
- II. The use of unclean apparatus.
- III. The use of citrate solutions.
- IV. Incipient coagulative change in transfused blood.
- V. Allergic phenomena in the recipient.
- VI. Systemic diseases in the recipient.
- VII. Transmission of disease to recipient.

The responsibility of the laboratory in the selection of the proper donor cannot be too greatly emphasized. Lindeman found 26 per cent more reactions when he allowed others than himself to do the blood testing. Brooks *et al.* believe that correct determination of blood groups will practically eliminate reactions. In many of the general hospitals the selection of the donor is frequently left to the intern, who is unqualified to make the proper determination because of inexperience. All tests should be directly supervised by one experienced in this procedure in order that the number of reactions from this source may be reduced. It is always desirable that the donor and recipient should be of the same blood type and the use of the universal donor should be avoided whenever possible. Aside from the incompatibilities between the donor's and the recipient's blood, the greatest

cause of reactions rests with the operator. With a more exact technic in the collection and administration of the blood these could be materially diminished.

As clinicians we must look to the laboratory to furnish us with an entirely compatible donor and exercise our judgment in the indications for transfusion and the selection of the appropriate method for the individual patient.

METHODS

As to our choice between the direct and indirect method of transfusion, we are inclined to take a middle course—using the direct method whenever adaptable and reserving the citrated blood for use in those cases in which the direct method seems clinically impracticable.

There are many instruments in current use for the direct transfusion of blood, each with their particular advantages and each a favorite among individual operators accustomed to their use. It is not my purpose to recommend any particular type of apparatus other than to state that the simplicity and ease of operation of the Soresi instrument has been very satisfactory.

Among the more important contraindications for employment of the direct method the following may be mentioned:

1. An inexperienced operator. Any direct method has technical pitfalls into which the uninitiated may stumble.

2. In infants in whom a very small caliber needle must be used.

3. In cases in which repeated venipunctures have thrombosed the available veins of the arms.

4. In uncoöperative patients who may disrupt the procedure by a sudden movement of the arm.

5. During an operation upon the recipient when the proximity of the donor is impossible.

6. In a patient with septicemia. There is always a remote possibility of transmission of infection to the donor.

7. Certain psychologic reasons, *e. g.*, when it is not desirable that the recipient be aware that a transfusion is being done.

If the greater incidence of reactions by the citrate method is due to other factors than the mere addition of sodium citrate to the blood, this incidence can be greatly reduced by the careful observation of certain technical details in its use.

The apparatus should be very simply constructed, consisting of a minimum amount of surface contact over which the blood flows. The sterilized rubber tubing and glassware should be thoroughly washed with saline solution to remove any débris. The tubing can best be cleansed

of any foreign matter by kneading the entire length as the saline solution passes through.

The citrate solution should be freshly prepared from the crystals for each transfusion, and the solution should always be added slowly to the donor's blood in an endeavor to maintain constantly the optimum concentration of 0.25 per cent. In mixing the citrate and blood the gentlest stirring or agitation should be practiced; violent shaking or whipping with the stirring rod should be avoided always. Trauma is no doubt an important factor in the production of minute coagulative changes. After the collection of the blood is completed it is well to maintain it at an even temperature by means of a water bath at 100° F. while the recipient's vein is being entered. In order to eliminate any possible clots the blood is strained through a few layers of gauze as it is poured into the infusion flask. Of course this step must be omitted if the same flask is used to collect the blood. In eliminating the technical factors in the causation of reactions by the citrate method it is advisable that rate of flow into the recipient's vein be slow, not exceeding 100 c.c. every 5 minutes. By either method of transfusion the recipient should be closely observed for any evidence of a reaction, and in its advent the transfusion should be stopped immediately. If an immediate reaction occurs it is likely to be introduced by one of several manifestations. The more important are backache, headache, substernal discomfort, dyspnea, cough with possibly bloody mucus, muscular twitchings, or even convulsive seizure and unconsciousness. Death may be averted by the immediate cessation of the transfusion if any untoward symptoms develop.

CONCLUSIONS

1. The use of transfusions should be reserved for those conditions in which there exists a reasonable expectancy of benefit.

2. The responsibility in selection of the donor is paramount.

3. In general, the incidence of reactions is in inverse ratio to exactness in technic.

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ABSTRACT OF DISCUSSION

WILLIAM P. BELK (Ardmore): Discussion as to the relative merits of citrated and uncitrated blood should be discontinued. Experiments have shown that the blood does not differ after it is transfused into the patient, whether it is transfused by the use of citrate or otherwise. The blood is exactly of the same value and the same type. The citrate method has come into disrepute because the inexperienced operator usually uses that method. Reactions are more frequent than with the direct method because of the inexperience of

many who use it and not due to any inherent fault in the method itself.

The opinion is still expressed that transfusion is dangerous in the presence of infection because severe reactions are apt to result. It is possibly true that the incidence of reactions is slightly higher in infected subjects since the intra-group agglutinins appear to be more strongly developed as a result of the infectious process. This slight danger, however, should be disregarded.

The toxic infections and septicemias furnish one of the most important fields for the use of blood transfusion. Except for surgical drainage, if this is possible, transfusion is probably the best and often the only means of combating sepsis.

There should be higher standards in blood transfusions. Both the selection of donors and the administration of blood too often are done by some one

who has had no experience. Agglutination tests require as much experience as do Wassermann tests, and yet none of us would accept a report from one who has never done a Wassermann test. Fatal reactions are due to a bad selection of donors and transfusion deaths occur very rarely from any other cause. When transfusions are done by the inexperienced it often happens that repeated venous punctures are made whereas one should be enough, less blood is given than the patient needs, and chills occur in every third or fourth individual. This is technic of low standard.

We should all unite in setting a higher standard for blood transfusions, one that assures a minimum of annoyance to the patient, not more than from 5 to 10 per cent of mild reactions, and no fatal reactions at all. This standard is not an impracticable one provided the transfusion of blood and the selection of the donor is limited to those skilled in this procedure.

THE TREATMENT OF PRENATAL SYPHILIS WITH ACETARSONE (STOVARSOL)*†

A Preliminary Report of Results in 73 Cases

DONALD M. PILLSBURY, M.D., AND H. HARRIS PERLMAN, M.D., PHILADELPHIA

The introduction of acetarsone in the treatment of prenatal syphilis has resulted in widespread interest in this apparently effective but as yet incompletely evaluated form of therapy by mouth. During the past 2 years this drug has been employed by us in the treatment of 73 cases of prenatal syphilis, 44 of which received no other form of syphilotherapy. Treatment in a considerable proportion of these cases is not yet completed; in some respects, therefore, this report is preliminary and premature. This shortcoming, however, is shared by nearly all the reported experience with the drug.

The history of the development of acetarsone and summaries of the European experience with it in congenital syphilis have been reviewed in a number of American studies, the most comprehensive review being that of Maxwell and Glaser. The largest American series, 100 cases, has been reported by Rosenbaum.

Briefly, acetarsone (stovarsol, spirocid) is a white odorless powder, tasting not unlike aspirin, and is easily soluble in water. It is No. 594 in the series of compounds synthesized by Ehrlich and, although a pentavalent arsenical, is distantly related to arsphenamine. The dosage schemes for acetarsone administration vary widely. In Table I is set down representatives of an intensive system, that of Tuscherer, an intermediate system as recommended by Maxwell

and Glaser, and the widely used conservative system (based on weight) of Bratusch-Marrain. The originators of the various dosage methods all emphasize the inadvisability of blind routine adherence to any system without due regard for the special problems presented in the individual case.

A tablet containing 0.25 gm. is standard. Treatment by all methods is intermittent. Tuscherer, and Maxwell and Glaser advise 6 weeks' rest between courses; Bratusch-Marrain allows rest periods of 4 to 6 weeks, gives at least 3 courses, or continues treatment until the Wassermann reaction is negative, with a final course being given 6 months after the negative Wassermann reaction. In infants the dosage under the intensive and intermediate systems should be reduced at least to one-half.

The system of Maxwell and Glaser was used in these cases. All systems begin with an initial small dose and increase by relatively gradual increments. Large initial doses commonly lead to reactions. There is little unanimity of opinion as to the total amount of treatment desirable or as to the advisability of combining acetarsone with some type of heavy metal therapy.

Increasing experience with acetarsone has emphasized its definite tendency to produce untoward reactions, some of which may be severe and even lead to a fatal outcome. Stokes has recently tabulated the reactions to the drug as follows: (1) Herxheimer-like reactions; (2) malaise, headache, fever, coryza, angina; (3) toxic erythema, urticaria, or other eruptions, including

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†From the Service of Dermatology and Syphilology of the Children's Hospital. (The stovarsol used in the treatment of these cases was furnished by Merck & Company.)

TABLE I

INTENSIVE (Tuscherer)			INTERMEDIATE (Maxwell and Glaser)			CONSERVATIVE (Bratusch-Marrain)		
Period of treatment in days	Dosage in tablets	Number of times daily	Period of treatment in weeks	Dosage in tablets	Number of times daily	Period of treatment in weeks	Dosage in no. gm. per kg. body weight	Number of times daily
3	$\frac{1}{4}$	1	1	$\frac{1}{4}$	1	1	.005	1
3	$\frac{1}{4}$	2	1	$\frac{1}{4}$	2	1	.01	1
3	$\frac{1}{4}$	3	1	$\frac{1}{4}$	3	1	.015	1
3	$\frac{1}{4}$	4	1	$\frac{1}{4}$	4	6	.02	1
3	$\frac{1}{2}$	3	1	$\frac{1}{2}$	3			
3	$\frac{1}{2}$	4	1	$\frac{1}{2}$	4			
3	1	2	1	$\frac{1}{2}$	4			
20	1	3	1	1	2			
Total: 21 gm. in 41 days			Total: 14 gm. in 49 days			Total: For 5 kg. infant—5.25 gm. in 63 days For 20 kg. child—21 gm. in 63 days		

occasional severe bullous and exfoliative dermatitis; (4) colic and diarrhea; (5) miscellaneous reactions including edema, chills, adenitis, albuminuria, jaundice, eosinophilia, and leukopenia; (6) nervous symptoms rarely, tingling and numbness of the hands and feet, pseudotabes, hemorrhagic cerebral accidents. Flaccid paralysis with death has been reported. In the reports of 584 cases which were examined in the literature, 3 deaths definitely due to acetarsone occurred.

From reported experience it would seem that the appearance of mild reactions, particularly diarrhea and other gastro-intestinal symptoms, mild toxic erythemas, and moderate albuminuria may not lead necessarily to permanent abandonment of acetarsone administration. Traisman, Rosenbaum, Maxwell and Glaser, Abt and Traisman, and Rambar report reactions of this type in which, after suspension of treatment until all symptoms had subsided, acetarsone was readministered without recurrence of the reaction. This is not always the case, however, and treatment must be resumed with extreme caution, frequent observation of the patient, and much reduced dosage. The occurrence of pronounced reactions must be regarded at present as an absolute contraindication against resumption of the drug.

The series on which this study is based consists of 73 cases observed for periods of time varying from 3 weeks to 2 years. Fifteen patients were under age 1, 29 between age 1 and 5, and 32 age 6 to 12. The varying total amounts of treatment and periods of observation in these cases are indicated in Table II.

Each patient was examined completely and urinalysis was done before treatment was begun. No patient was given treatment until serologic confirmation of diagnosis was obtained. Roent-

genograms of the long bones were obtained in a majority of the cases. A thorough attempt was made to give the responsible parent an understanding of the situation confronting the child, and the possible treatment reactions were described. Enough acetarsone for only 1 week of treatment was prescribed. Urinalysis was repeated each week, if possible, and blood for Wassermann and Kahn tests taken at the end of each course of treatment.

The clinical response in general was good. In 12 cases of definite roentgenologic evidence of bone involvement in which reexaminations were made, 11 showed marked to complete healing. One case of syphilitic osteitis of the skull showed no change. Two cases of Clutton's joints and 2 of Parrot's pseudoparalysis showed marked improvement after 1 course of acetarsone. In 2 cases of interstitial keratitis the response in one was fairly satisfactory though not spectacular, the other has not been under sufficient observation to judge the final result. In 6 cases in which the spleen was markedly enlarged, 4 showed marked diminution in size after 2 courses or less of acetarsone, 1 was somewhat reduced, the other showed no change. The response in 4 cases with early cutaneous lesions was greater than that usually seen under bismuth therapy, somewhat less than the healing following an arsphenamine injection. Two cases presenting annular syphilids of the face showed definite objective improvement in the lesions in 2 weeks and complete disappearance in 6 weeks. Two cases with moist papules about the anus showed 50 per cent regression in 1 week. In 1 of these cases dark field examination was done at 24-hour intervals; no spirochetes were present in 72 hours. The child had received 0.12 gm. of acetarsone.

The data on the response of the blood Wassermann and Kahn reactions in the frequently in-

completely treated, cases in this series can be regarded as only a prediction and probable understatement of the final results. They are tabulated in Table II.

Of the 50 cases in which the Wassermann reaction was not completely reversed, 25 showed more or less reduction of the titer in both antigens. Of the patients previously treated by standard methods, all but 4 had received more than 10 injections of an arsphenamine or bismuth. The serologic titer was reduced in 10 of these cases. The average amount of acetarsone administered in the previously treated and in the exclusively acetarsone-treated cases was almost identical. It is worthy of note that in cases under age 1, 50 per cent reversal occurred, in cases age 1 to 5, 31 per cent, and in the group age 6 to 12, 21 per cent.

Seven reactions to treatment occurred, 3 of which were alarming and forced complete discontinuance of acetarsone therapy. The essential facts in the reactive cases are as follows:

1.—E. B., premature female infant weighing 3 lbs., 12 oz., admitted on July 11, 1933. Presented a maculopapular syphilid of the buttocks, snuffles, and umbilical hernia. Blood Wassermann reaction strongly positive. Urinalysis on admission showed a trace of albumin, many hyalin casts. Gray powder, gr. $\frac{1}{4}$ t.i.d. was administered for 1 week. Urinalysis, July 26, 1933, showed a faint trace of albumin, no casts. Acetarsone was then given in a dose of $\frac{1}{4}$ tablet daily. After 1 week, total dosage .427 gm., an acute hemorrhagic nephritis developed, the urine showing a trace of albumin, many red blood cells, no casts. Acetarsone was discontinued; the nephritis disappeared in 1 week. During the next month the patient received 2 doses of 25 mg. soluble sodium bismuth tartrate. The child was a difficult feeding problem and the gain in weight very slow (1 pound in 3 months). The father removed the patient from the hospital against the resident's advice; it died 12 hours later. No necropsy was obtained.

Comment: It seems unlikely that this child's death can be regarded as due to acetarsone. The initial dose was unquestionably excessive for a small premature infant and the previous finding of large numbers of hyalin casts should probably have been regarded as a contrain-

dication to acetarsone therapy, although the urine was practically negative at the initiation of treatment.

2.—E. C. H., age 4 months; weight not recorded. Presented malnutrition and snuffles on entrance. Following third dose of $\frac{1}{4}$ tablet of acetarsone daily, developed an acute nephritis with a trace of albumin, many red blood cells, and a few hyalin casts. The urine was negative 2 weeks after discontinuing acetarsone. Bismuth therapy was then given without incident.

3.—R. S., colored female, age 5. On ninth day of treatment developed sharp abdominal pain, 6 to 8 loose stools daily, fever of 101.2° F. Symptoms disappeared 1 day after withdrawal of acetarsone. After 1 week, therapy was again given. During the second week of treatment ($\frac{1}{4}$ tablet b.i.d.) the abdominal symptoms and fever recurred, with prompt disappearance after cessation of treatment.

Comment: This patient's reaction twice developed while she was receiving .12 gm. acetarsone daily. Continuance of the initial lower dose for a longer period might have aided in the development of tolerance to treatment.

4.—L.D., colored infant, age 4½ months. During the third course of acetarsone nausea and vomiting, followed by diarrhea for 2 days, developed. After 1 week of rest, therapy was resumed in the usual dosage without incident.

5.—A. M., colored female, age 3 years, 3 months. During third week of third course of acetarsone the patient developed a vesicular erythematous dermatitis of the neck, chest, and axillæ, with marked itching. Under local treatment the dermatitis subsided in 2 weeks. Patient did not return for further treatment.

6.—L. W., colored male, age 3. Following administration of initial dose of $\frac{1}{4}$ tablet of acetarsone, the child vomited, complained of abdominal pain, and had fever of 100° F. by rectum. Examination was negative. After 1 week of rest, treatment was resumed without incident.

7.—W. O., colored male, age 10. During the fourth week of the fifth course of acetarsone a fine papular pruritic dermatitis was noted on the neck and upper thorax. The eruption faded in 1 week, and after another week of rest another course of acetarsone was given without recurrence of the dermatitis.

Nearly all reports of acetarsone experience have emphasized the lessened difficulty in enforcing regular attendance of patients on this type of therapy. We have surveyed the attendance of patients receiving acetarsone therapy for a period

TABLE II

Number of courses of treatment	Number of cases	Wassermann reaction reversed	Age	Number of cases	Wassermann reaction reversed
1	16	3	Under 1	10	5
2	19	8	1 to 5	29	9
3	24	6	6 to 12	32	7
4	5	1			
5 to 7	7	3			
Total	71	21			

Receiving standard prescription	29	6
Receiving acetarsone alone	41	14

of 1 year and of patients on standard therapy for a like period. The relation of actual attendance to that expected was 69 per cent in patients receiving acetarsone and 51 per cent in patients on injection therapy. The latter figure was lower in spite of a proportionately much greater activity in follow-up on these cases by an efficient social service department. The vast difference in the amount of persuasion and coaxing necessary in the 2 groups of cases cannot be expressed numerically.

In the treatment of these cases there has been concern as to whether prescribed acetarsone was actually administered continuously and in accordance with directions. Although there has been no indication of the failure of parents to cooperate in the administration of therapy by mouth if the seriousness of the situation in regard to syphilis is explained, some method of determining whether the patient was actually receiving treatment or not would be desirable. To this end there was performed a small number of qualitative tests for arsenic in the urine by Reinsch's method to determine whether such a method of control were feasible or not. In 10 specimens from patients on treatment with acetarsone Reinsch's test showed a trace of arsenic in 9. Five control specimens were negative for arsenic. It is possible that such a system of check may be of value in cases in which it is suspected that the administration of acetarsone is being neglected, but its routine use is not recommended. The cumulative effects of acetarsone make it improbable that arsenic may be present in detectable amounts in the urine too long for practical application of the method. It is pertinent to question the advisability of placing the actual administration of treatment of such a serious disease as syphilis in the hands of parents if there is any marked evidence of untrustworthiness or irresponsibility present.

SUMMARY

Acetarsone is an extremely convenient method in the treatment of prenatal syphilis. The clinical response seems excellent and the initial influence of the drug on the serologic condition of these incompletely treated patients we regard as satisfactory. Acetarsone has a definite tendency to produce reactions of varied types, some of which may be serious. The difficulties in securing regular attendance of patients on acetarsone therapy are much less than in patients on standard methods. The advantage of early diagnosis is apparent in the better serologic response in patients under age 1 year. Testing of the urine for arsenic may or may not prove a feasible

method of control in patients in whom it is suspected that the administration of treatment is being neglected. Acetarsone therapy demands the closest type of observation and control. The following precautions and methods are essential: (1) Complete preliminary examination of the patient, including urinalysis; (2) an extremely cautious and reduced dosage level in infants, in patients with the slightest urinary abnormalities, and in those who have had previous reactions to the drug; (3) weekly observation and urinalysis; (4) permanent cessation of acetarsone therapy with the occurrence of any severe reaction.

The method assuredly deserves continued clinical trial. It cannot be regarded as completely evaluated as yet, for the following reasons: (1) Adequate information of final results on the basis of 5 or 10 year follow-ups is not available; (2) the necessary dosage level is still a subject of considerable dispute; (3) the advisability or necessity of combining it with some type of heavy metal therapy has not been determined; (4) it is a drug with a definite tendency to produce reactions, the variety of which is apparently increasing.

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ABSTRACT OF DISCUSSION

JOHN F. SINCLAIR (Philadelphia): At the Babies' Hospital in Philadelphia this method has been used for 2 years. Although there have not been so many cases as there were at the Children's Hospital, there has been a slightly different group represented. Children from birth to age 6 have been treated. The best results are gained if the treatment is begun in the first year of life. The results obtained with the older children in the group are not so gratifying. The reactions have not been severe. They have been chiefly nausea, vomiting, diarrhea, and slight fever. In those instances the drug was stopped and treatment was begun again at a later date, after the acute reactions had subsided.

Mothers have certainly objected in the past to the use of the needle in giving some form of arsphenamine. It has been difficult to maintain regular attendance, for the parents object to the frequent use of hypodermic injections or of intravenous injections. The treatment by mouth has therefore aided very much in securing the cooperation of the parents at an early date and in making treatment continuous. More cases have been completed in the past 2 years than was possible under the old methods.

The dangers connected with this form of treatment must be emphasized. As it becomes more generally used, those dangers are apt to increase if it is not recognized at the outset that there not only are severe and distressing reactions but also deaths. Three deaths due to this are definitely stated in the literature. There may be others unreported. There is a definite possibility of death as well as reaction. Small doses must be used in the beginning and increased gradually. Patients must be watched with the utmost care. The method of weekly administration of the tablets and advice to the mother is followed at the Babies' Hospital. In this way the

patients are not without our observation more than 1 week at a time. That is most essential. As far as possible, a urine examination should be made at each visit so that a check can be made on the condition of the kidneys.

The precautions, then, that have been outlined by the authors cannot be too strenuously insisted upon. These precautions must be followed in order to avoid considerable difficulty in the future as this method becomes more widely used.

REPORT OF A THREE YEARS' CLINICAL STUDY OF SCARLET FEVER IMMUNIZATION*

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In January, 1932, the attempted immunization of children against scarlet fever was started at the baby health clinic of the Mary J. Drexel Children's Hospital of Philadelphia. Much of the work which had been done previously concerned adults and children in institutions, although our interest had been particularly attracted to much younger children and to those who lived in their own homes.

We were quite aware of the divergence of opinion relative to the etiology of scarlet fever and the nature of the so-called toxin. In 1923-1924, the Dicks were the first to satisfy Koch's postulates, thus apparently proving that the streptococcus which they isolated was the cause of scarlet fever. Other investigators believe that there is neither bacteriologic nor serologic proof that specific strains of hemolytic streptococci cause scarlet fever.

The Dicks claim that, if the streptococcus which they isolated produces a toxin when it is injected into the skin of a susceptible individual, a local reaction follows because there is no circulating antitoxin to neutralize the intradermal toxin. Others support the hypothesis that this toxin acts more like an allergen than a toxin so that if it is injected into the skin of a person who has had previous contact with streptococcus products and whose cells therefore contain antibody, a positive reaction results due to the antigen-antibody union. A positive Dick test would therefore represent cell sensitivity. A negative test would indicate that the individual is in 1 of 3 states—either not sensitized, desensitized, or in a state of "masked sensitivity."

We do not know which group of investigators is right, but we are convinced that, whether the Dick toxin is a toxin or an allergen or both, the Dicks and others have conclusively demonstrated that clinical scarlet fever can be prevented by treating Dick positive reactors with adequate doses of toxin. Believing this and desiring to know more about the immunization of young

children and children from private homes, we planned our work.

Since more than 50 per cent of the cases of scarlet fever occur between ages 3 and 7, it was decided to start immunization before age 3 and to follow up these children if possible until they were age 7. In this report and in our subsequent studies, we are attempting to answer the following questions as they relate to clinic children, age 11 months to 3 years, when originally tested.

Will families coöperate in the necessary procedure for immunization; namely, 1 preliminary Dick test; if positive, 5 treatments at weekly intervals, followed in 2 weeks by a re-Dick test and another visit for the inspection of this test? If a child has a spontaneously negative Dick reaction, does that indicate that he is permanently immune to scarlet fever? If not, when and how often should he be retested? If his original test is positive and he is treated until he has a negative one, should he be subsequently re-Dick tested to determine continued immunity? How often should he be retested? If the test becomes positive, what further treatments should he receive?

PROCEDURE

The majority of all tests and treatments have been given and interpreted by one doctor to avoid variation in technic and judgment. Sterilization of syringes and needles is carried out by one nurse, who also has been extremely helpful in keeping accurate records. Every effort has been made to eliminate sources of error by following the technic repeatedly outlined in detail by the Dicks.

The children are white and mostly of American stock. The parents are poor but do not live in crowded tenement sections of the city. Most of them pay a clinic fee, which covers the major part of the actual cost of materials used. They are told the facts so far as we know them relative to scarlet fever prevention. They are warned concerning reactions after treatments. It is made clear to them that if their child is Dick positive, he must be brought to the clinic

* Read before the Section on Pediatrics of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 4, 1934.

at least 8 times before he can be said to be immune. No home visits are made, but post cards are frequently sent to remind parents to return for tests.

A test is recorded as negative when there is no reaction at the site of injection in 22 hours other than the possible needle prick. A test is positive if at the site of injection there is a pink, pale pink, or red area, not elevated nor indurated but with a rather well-defined outline. Positive reactions may be several centimeters in diameter, but they are sometimes less than 1 centimeter, a point that is not generally recognized. We define a doubtful reaction as one which is very pale and vague in outline, with a diameter of about $\frac{1}{2}$ to $\frac{3}{4}$ centimeter.

RESULTS OF THE FIRST DICK TESTS

Since January, 1932, 142 children have been tested. Of these, 100 or 70 per cent were positive, 28 or 20 per cent were negative, and 14 or 10 per cent were doubtful. There was no significant variation in age among the 3 groups of reactors. Of the 42 children who were originally negative or doubtful, 28 have returned for one or more retests. Thirty-five per cent of these became Dick positive within a 2½-year period.

From our findings we conclude that spontaneously negative Dick tests in children between ages 1 and 3 do not indicate permanent immunity to scarlet fever. Subsequent tests should be done annually for at least 3 years to determine continued immunity.

Furthermore, since over 80 per cent of these children showed a positive reaction to the Dick test and therefore apparent susceptibility to scarlet fever, we wonder whether a Dick test preliminary to treatment is indicated in children under age 3. Is susceptibility to scarlet fever at this age analogous to susceptibility to diphtheria? If so, we would be justified in advising scarlet fever immunization without preliminary Dick testing, just as we now advise routine diphtheria immunization without preliminary Schick testing in children under age 3. Further work along this line is indicated before such advice can be given.

RESULTS OF TREATMENTS AND FIRST RE-DICK TESTS DONE ON 99 CHILDREN

One hundred of the children were originally Dick positive and 15 more became positive subsequently, so that there was a total of 115 children to be immunized. The parents of only 99 or 86 per cent of the susceptible children consented to 5 immunizing treatments and subsequent first re-Dick tests. (The term "re-Dick" is used to indicate all tests done *after* treatments

are completed.) Of the 16 susceptibles who were not finished, 3 were denied treatments by the parents, 5 refused further treatments because of bad reactions after the first ones, 1 developed scarlet fever, 2 finished treatments but would not return for the retest. The fact that 86 per cent of the parents brought their children to the clinic 8 times until the re-Dick test was read indicates that they will cooperate in the attempted prevention of this disease in spite of the inconvenience, the reactions, and the expense.

Ninety-four per cent of the treated children were immunized by 5 full doses of toxin, these treatments being 500, 2000, 8000, 25,000, 80,000 skin test doses at weekly intervals. About 6 children had 300 skin test doses instead of 500 for the first treatment. Another 2 per cent were immunized after a sixth dose. Only 2 of those whose re-Dick tests were still positive refused further treatments. These figures agree with others, that more than 96 per cent of individuals who are given 5 or 6 full doses of toxin become Dick negative.

RESULTS OF SECOND AND THIRD RE-DICK TESTS DONE ON IMMUNIZED CHILDREN

The question that concerns parents most is whether a child who has been immunized against scarlet fever may later become susceptible. Does his acquired immunity last for 6 months, for 5 years, or for life? The Dicks state that tests made on immunized nurses at intervals of 1, 2, 3, 5, and 6 years indicate that more than 90 per cent of those immunized to the point of a negative skin reaction retain their immunity. Our results on this group of young children are not so good. It must be remembered that the Dicks have retested thousands of individuals while we have retested less than 100 and therefore our percentage of error is possibly greater than theirs.

Of 95 children who were treated until their first re-Dick tests were negative only 59, or 61 per cent, have returned for subsequent tests. Ten others will do so but cannot be included in this report. All the children tested during the first year remained negative. Twenty-four children were tested 1 year after their negative re-Dick tests and 17 per cent of these were positive. Eighteen children were tested 2 years after their re-Dick tests were negative and 3, or 17 per cent, became positive. Nine children were tested 2½ years after their re-Dick tests were negative and 22 per cent became positive. From the end of the first year until 2½ years after the first negative re-Dick tests a total of 9, or 18 per cent, became positive. These figures suggest that there is a slight increase in the tendency to be-

come Dick positive the third year after immunization. Further analysis of these cases shows that the majority of those that became positive at the end of 2 and $2\frac{1}{2}$ years had had doubtful reactions when tested 1 year previously. This leads us to think that children who are negative 1 year after immunization need not be retested the subsequent year, but those who are doubtful should immediately be given an additional treatment or should be retested in 1 year. Additional data is necessary to prove the point. The best advice that can be given parents at present is that immunized children should be re-Dick tested annually in order to determine that they are still immune to scarlet fever.

TREATMENTS FOR CHILDREN WHOSE SECOND OR THIRD RE-DICK TESTS BECAME POSITIVE

Of the 9 children whose second or third re-Dick tests became positive, all received further treatments. Six again became Dick negative; 2 have not been retested; 1 is still positive after receiving 40,000 skin test doses of toxin. From our experience in dealing with these cases which become Dick positive after previous immunization, we have found that most parents will not bring their children back for more than 1 or 2 extra treatments. One large treatment would be most convenient but it causes too severe a reaction, as we discovered with 2 children who received 40,000 and 80,000 skin test doses respectively. One of these children was so shocked that a local doctor was called in; the other had high fever and vomited for 24 hours. Such reactions are unnecessary and tax parental coöperation severely. The course we are now following is to give about 15,000 skin test doses for the first treatment, followed in 1 week by 60,000 to 80,000.

SUMMARY OF RESULTS

Originally tested	142
Positive Dick tests	100 (70%)
Additional positive Dick tests within $2\frac{1}{2}$ years	15 (10%)
Total positive Dick tests	115 (80%)
Positive Dick reactors fully treated and re-Dicked	99 (86%)
First re-Dick negative	93 (94%)
Immunized children followed	59 (61%)
Became positive within $2\frac{1}{2}$ years	9 (18%)

INTERESTING FACTS AND MISTAKES

Four of the children who have been persistently Dick negative were intimately exposed to scarlet fever and did not contract it. Two children who were Dick positive but not treated con-

tracted the disease. Twins were both negative for 2 successive tests and then 1 of them became positive. One child with rather severe asthma received the treatments and has subsequently been Dick negative twice. She had sharp reactions but no worse than those of many of the other children. By mistake her first treatment was 2000 skin test doses instead of 500, but she had no unusual reaction. Mistakes were made in the amount of toxin used for the Dick test of 3 children who were given 0.2 c.c. of the fourth treatment dose intradermally instead of 0.2 c.c. of the dilute toxin. This is equivalent to 5000 skin test doses instead of the usual 1 or 2 skin test doses. Two of these children had fever and vomiting. All of them had very severe local reactions—bright red, raised, hot, tender, and 2 and 3 inches in diameter. The general reactions disappeared within 24 hours but the local reactions lasted for 6 to 8 days. There was absolutely no breaking down of the skin. Only one of the 500 odd Dick tests which were done in this study showed any reaction that suggested an allergic response. This was in a child who after he had been immunized and become Dick negative, again became positive in 1 year. After receiving 40,000 skin test doses he was re-Dicked and both of his arms showed a raised red reaction 1 by 1 centimeters in diameter. This lasted at least 2 days. We do not believe it was due to infection. We recorded the reaction as a positive one and hope to follow him.

SUMMARY

1. This paper is a clinical report of scarlet fever immunization carried out on children from age 11 months to age 3 when first tested. They were brought to the clinic for all treatments.

2. No attempt has been made in this paper to discuss the etiology of scarlet fever nor the nature of the toxin used in treatments.

3. The parents coöperated to the extent that 86 per cent of them brought their susceptible children to be fully treated and retested. Sixty-one per cent have brought their children back annually for 1 or 2 subsequent re-Dick tests. It is expected that at least 9 per cent more of the group will still coöperate, making an expected total of 70 per cent who are anxious to have their children immunized and subsequently followed. This amount of coöperation suggests that the average reaction following treatments is not too severe.

4. Seventy per cent of the children had positive Dick tests when originally tested. An additional 10 per cent became positive within $2\frac{1}{2}$ years. Therefore, the deduction may be made

that children of this age whose original tests were negative should be tested annually in order to determine that immunity is still present.

5. At least 94 per cent of the children were Dick negative after receiving 5 full immunizing treatments. A sixth dose immunized an additional 2 per cent of them.

6. Fifty-nine children have been retested 1 or 2 times since the first re-Dick test was negative. A total of 18 per cent became positive within 1 to 3 years after immunization. Apparently immunized children, age 1 to 3, may become Dick positive and therefore should be retested annually to determine that immunity continues.

7. If an immunized child subsequently becomes Dick positive, he should receive 2 or 3 extra treatments. The amount suggested for the first is about 15,000 skin test doses and for the last 60,000 to 80,000 skin test doses. Such doses result again in negative re-Dick tests.

2104 Spruce Street.

ABSTRACT OF DISCUSSION

J. GIBSON LOGUE (Williamsport): About a year ago Williamsport had a very serious epidemic of scarlet fever which stimulated a great deal of interest on the part of private patients in having children Dick tested and immunized against scarlet fever. There is considerable opposition to this work from the general practitioner. It is entirely due to a misconception of what is used to immunize against scarlet fever. It is thought that the scarlet fever antitoxin is the material used, and there is often a very severe serum sickness following its use.

A practical method of preventing somewhat the local and the systemic reaction is the use of a routine amount of solution of adrenalin, 1:1000, 1 to $.1\frac{1}{2}$ c. c. in the syringe with the toxin. It is supposed that this will slow down absorption. The children who have marked constitutional reactions are supposed to be children who absorb the solution quickly.

If the water in the sterilizer is tap water and contains appreciable amounts of free alkalis, it is possible that there will be too many negative Dick tests because the solution of skin test toxin is very sensitive. Sterilization cannot be done with the use of alcohol, but distilled water should be used in the sterilizer if there is free alkali in the tap water.

Sometimes when I was making a Dick test the needle slipped off the syringe just as I thought I had completed the injection of .1 c. c., but to be certain I repeated the Dick test on another location in the forearm. When those children were seen in 22 to 24 hours for interpretation, much to my surprise there was a positive and negative Dick. I am convinced that more positive Dick tests will be secured with a superficial intradermal injection. In other words, if the technic outlined for use in Schick testing (in which the eye of the needle should be visible under the top layer of the skin) is followed, there will be many more positive Dick tests than if a deeper intradermal injection is made. Which is the correct procedure and what accounts for that I do not know. Probably the deeper inoculation is

the one of choice. With the superficial Dick testing I have been unable almost invariably to get a negative Dick test in my recovered scarlet fever cases. Scarlet fever does not always leave immunity, but most of the time it does.

S. A. EVERETT (Freeland): May I ask Dr. Bacon what the object of this work was in view of the fact that the Dicks have shown that negative tests are evident within 6 months after tonsillectomy?

DR. BACON: I stated the object of this work in the beginning of the paper. I am not acquainted with the fact that the Dicks have demonstrated that tonsillectomy results in negative Dick tests.

DR. EVERETT: Does tonsillectomy produce complete immunity?

DR. BACON: There is no proof that tonsillectomy produces immunity.

AMEBIC DYSENTERY GERMS MAY BE FILTERED FROM WATER

The cysts which transmit amebic dysentery can be filtered out of water by the usual filtration methods used to purify water supplies, tests conducted at the Chicago Experimental Filtration Plant showed.

Chlorination is not a practical method of freezing the water from these organisms, Dr. Bertha Kaplan Spector of the U. S. Public Health Service and John R. Baylis and Oscar Gullins, chemists of the Chicago Department of Public Works, found.

Chlorine and chloramine kill the cysts, but the amount necessary is more than could be used in a public water supply. Chlorine is more effective than chloramine in killing the cysts, the tests showed.

The outbreak of amebic dysentery in a Chicago hotel last fall and the possibility that it was caused by contamination of the hotel water from an unknown source emphasized the importance of knowing more about *Endameba histolytica*, the organism that causes the disease. It is particularly important to know more about this germ's life outside the human body, how it is transmitted, and means of safeguarding the public from the infection, the scientists pointed out in the report of their tests issued by the U. S. Public Health Service.

Cysts were used for tests of water purification methods because they are generally considered the transmissible stage of the organism. Waste material containing these cysts was added to samples of water which were then treated with aluminum sulphate to coagulate the solid matter and filtered through rapid sand filters of a size and type found in many filtration plants throughout the country. All cysts were removed from the water by the treatment.—*Science News Letter*, Aug. 4, 1934.

EAT LESS, LIVE LONGER, EXPERIMENTS INDICATE

Support for the old adage, "We dig our graves with our teeth," has been found in experiments by Lester Ingles, graduate student at Brown University. Working under the direction of Prof. A. M. Banta, Mr. Ingles found that jars of the little aquatic animal *Daphnia* given short supplies of food lived on the average 50 per cent longer than did similar colonies kept well fed. Dr. Banta's explanation was that these animals, thus forced into abstinence, burned their life-fires lower, produced and used less energy, and consequently did not "wear out" so soon.—*Science News Letter*, Feb. 2, 1935.



230 State Street

"Indiana limestone decorated with ornamentations in carved stone and cast bronze symbolizing medical tradition."

DEDICATORY EXERCISES OF THE NEW LIBRARY BUILDING

The remodeled headquarters and new library building of The Medical Society of the State of Pennsylvania at 230 State St., Harrisburg, was dedicated with appropriate ceremonies at 3:30 p. m., Tuesday, Dec. 11, 1934. Dr. Edgar S. Buyers, chairman of the Board of Trustees, presided. The invocation was pronounced by the Rev. Wilbur V. Mallalieu, Pastor of Grace Methodist Episcopal Church, Harrisburg.

DR. MALLALIEU: Oh, Eternal God, the source and sustainer of all things, we thank thee for the toil of mind and heart of the men whose patient devotion has taken the findings of medical science and brought health and length of life to men and women. As we dedicate this building to these high ideals we pray that there may be a stimulation of fellowship that the high standards of the profession may be raised higher, and through the devotion of these men there may be granted to the people that basis of all wealth—health. To thee be praise through all generations. Amen.

DR. BUYERS: Preliminary to continuing this program, I desire to read the following from the Annual Report of the secretary of our Society to the 1923 House of Delegates:

"During the past year the Board, after careful consideration, purchased an improved property at 230 State Street, Harrisburg. The purchase price, together with the necessary expense involved in improving and converting the building to suit the purpose of the Society, totals approximately \$21,000. The building is a three-story brick of old style and construction, situated on a lot 26 by 113.4 feet to a ten-foot private alley, on State Street, 6 doors from the corner of North Third Street.

Those who are familiar with the surroundings of the Capitol Building in Harrisburg will recognize the location of this property as being particularly advantageous, being on the boulevard leading from the front entrance of the Capitol to the Susquehanna River, 6 doors from the corner of the street running parallel with the front of the Capitol grounds."

Dr. Buyers also read the following from the Secretary's Report to the 1928 House of Delegates:

"The amount of increase in annual dues proposed, namely, \$2.50, recommended by the Board of Trustees, would in all probability, in 5 years' time, provide a *nest egg* for a building to be erected on the Society's property, worthy of its location adjoining the State Capitol."

DR. BUYERS: At a meeting of the Board of Trustees on Oct. 2, 1933, it was unanimously decided that an architect be employed to prepare plans for an appropriate building at 230 State Street, Harrisburg, and that a Building Improvements Committee be appointed by the chairman of the Board. The following were appointed to serve on this committee: Dr. Augustus S. Kech,

Chairman, Dr. Frederick J. Bishop, and Dr. Clarence R. Phillips, who are present today.

I wish to express the thanks of the Board of Trustees of The Medical Society of the State of Pennsylvania and of the membership of 8000 physicians to this committee which supervised this enterprise. The committee spent long and tedious hours in Harrisburg during the erection of this structure, giving of their time and thought freely, at great inconvenience to themselves. Their efforts are greatly appreciated by all. Will Dr. Kech, Dr. Bishop, and Dr. Phillips please rise and be presented?

Mr. M. Edwin Green, representing Lawrie and Green, the architects, will present the keys of the building to Dr. Augustus S. Kech, chairman of the Building Improvements Committee.

MR. GREEN: It is with great satisfaction that I turn these keys over to The Medical Society of the State of Pennsylvania. During the erection of this building we worked amid many fortunate circumstances. We were erecting a structure intended for a group of men able to appreciate things artistic. We greatly appreciated the courtesy and coöperation of your splendid Building Committee, Drs. Kech, Bishop, and Phillips, and I take great pleasure in turning the keys over to Dr. Kech, the chairman of the Committee.

DR. KECH: In 1923 the Board of Trustees purchased for The Medical Society of the State of Pennsylvania this property located at 230 State Street, in the Capital City of our Commonwealth, for the purpose of establishing a permanent home for our society. At the time of its purchase the property consisted of a 3-story brick structure of antiquated architecture, which had been built for residential purposes. This was at the time remodeled, using the first floor for the society's offices, and renting small apartments on the second and third floors. The ultimate hope of succeeding officers was expressed in the report of the Secretary in 1928 to the House of Delegates in the following words: "To provide eventually a building that will not only house our archives and library, but which will also memorialize the contributions of our members to preventive and curative medicine and the sum total of human happiness—a building monumental in character, which will at one and the same time portray our gratitude for past achievements and our aspirations for the future."

The foresight and judgment of the Board of Trustees in 1922-23 has been fully justified, as is shown by the fact that during the 12 years of occupancy the society has received as income



• Board Room

from it an amount which not only paid all of the maintenance and fixed annual expenses, such as taxes, insurance, heat, light, and improvements, but also provided a net income of over \$3000, which has been added to the Society's Endowment Fund. Thus we have had our own JOURNAL office rent free for the past 12 years and in addition have earned a net income of 1.3 per cent on our original investment.

A changing economic world has thrust increased responsibilities, not entirely forecast by those who conceived the idea of a permanent home, upon the officers and committees of the State Society and the active county units. The Medical Society of the State of Pennsylvania, being the only group equipped by professional education and experience, is in recent years being rightfully called upon more and more by governmental, semiofficial, and private agencies to counsel and to assume leadership in the solution of problems pertaining to health activities. This home, by its location in the central part of the state and at the seat of the government, equips us not only to carry on the necessary work but

it will serve also as a constant inspiration to every component county medical society.

On Oct. 5, 1933, Dr. Edgar S. Buyers, chairman of your Board of Trustees, named Dr. Clarence R. Phillips, Dr. Frederick J. Bishop, and the speaker as a Building Improvements Committee to bring to realization the dream of the officers of earlier days.

The present structure represents the conception of the Building Improvements Committee of the task committed to it. This was arrived at only after many fruitful conferences with the members of the Board of Trustees, Secretary Donaldson, past presidents Falkowsky and Guthrie, and the indispensable and unflagging personal interest of the architects, Mr. Ritchie Lawrie and Mr. Edwin Green, and also of Mr. John S. Stapf, the builder, whose many valuable suggestions and skilled efforts are incorporated in this fine structure.

This new building, erected behind and connected with our remodeled old building, now occupies practically the whole of our lot. The front of the building is constructed of Indiana

limestone in conformity with the public buildings of the State Capitol, and decorated with ornamentations in carved stone and cast bronze symbolizing medical tradition. The first floor front is completely remodeled with offices and a lobby. The second and third floors each contain an apartment, remodeled in keeping with the rest of the building. The new building or annex in which we are now meeting is a 2-story, fireproof, brick structure. The first floor contains this room in which we meet, designed to serve as a Board room or large committee room (seating 90) and 2 smaller additional committee rooms adjoining. Beneath the 2 smaller rooms is the fireproof and waterproof vault in which the valuable archives of our society will be accumulated and stored for safety and easy reference. Just beneath the Board room is the library. Our Board of Trustees plans not to accumulate bound volumes inaccessible to our state-wide membership, but to establish a "package by mail library service," to be available in a short time, with reprints of all outstanding current essays, addresses, and reports from current literature upon medical, medico-economic, medico-social, and hospital subjects. These will be available for our membership throughout the state. At the present time 3 other states (Wisconsin, Texas, and Indiana) have a similar service, which is patterned after the American Medical Association service but which will be more intimate and practical for our own members. Investigation has convinced us that this can be carried on with but little additional cost to our society.

This building of steel, stone, brick, and mortar and highly polished wood symbolizes the tradition, the stability, the scientific progress, and the service of the more than 8000 physicians, comprising The Medical Society of the State of Pennsylvania, who have dedicated themselves to the healing of the sick and the preservation of the lives of the people of the state. With this thought in mind our Committee, on behalf of the Board of Trustees, fulfilling the dream of our predecessors in office, conveys to you, President Behrend, and to the members of The Medical Society of the State of Pennsylvania this building free from debt. Our task is completed. We hope that you will find as much pride and enjoyment in the occupancy of this structure as we have had in its erection.

DR. BUYERS: The building will be formally accepted by Dr. Moses Behrend, president of The Medical Society of the State of Pennsylvania.

DR. BEHREND: It gives me the keenest pleasure to accept, on behalf of The Medical Society

of the State of Pennsylvania, this finely conceived building. Its completion bears witness to the fact that we are a forward looking body, aware of our responsibility to provide adequate facilities to those eager to avail themselves of the opportunities a building such as this can offer.

Here will gather men to listen and to learn, to discuss and to debate, and to defend, if need be, those principles of right and justice which are the inalienable heritage of every physician in this State. From these enlarged quarters our county society members will derive postgraduate study courses so necessary in these days of rapid medical advancement. The new reference library will offer our 8000 and more members every important medical publication of today. Bulwer Lytton states so truly, "In science read by preference the newest works."

To the architects and the builders, to the officers of our State Medical Society, and to the Building Improvements Committee of the Board of Trustees, whose untiring efforts have brought about the consummation of a dream long cherished, this must indeed be a happy occasion. I rejoice with you and thank you on behalf of our membership for all you have done toward the completion of this beautiful home.

DR. BUYERS: It is with regret that we learn that Dr. James N. Rule, Superintendent of Public Instruction in Pennsylvania, is unable to be here. We have with us, however, Mr. William M. Denison, Deputy Superintendent of Public Instruction, who brings us the greetings from the Department of Education in Harrisburg.

MR. DENISON: Your printed program quotes from William Osler, a former and most distinguished member of your society, a statement to the effect that "the promotion and dissemination of medical knowledge throughout the State remains our important function." Fundamental to this pronouncement are 2 functions of the State Department of Public Instruction.

First, if medical knowledge is to be promoted and disseminated, it is essential that the constituency of the medical profession, as a whole, be composed of educated citizens. The State of Pennsylvania by constitutional pronouncement has stated:

"The General Assembly shall provide for the maintenance and support of a thorough and efficient system of public schools wherein all the children of the Commonwealth above the ages of 6 years may be educated."

By legislative enactment there has been created, as a branch of the State Government, the Department of Public Instruction, the function of which is to encourage and promote public education among the citizens of the Common-



Fireplace and Mantle in Board Room Showing
Portrait of Dr. Stevens

wealth in accordance with this constitutional provision and specific acts passed by the General Assembly. Thus public education is definitely established in this State as a state function to the end that illiteracy may be banished and an educational background established which shall enable our people to evaluate intelligently the problems which confront them and to perform in a commendable manner their duties as citizens of the great Commonwealth. The early pages of history are dotted with the atrocities of a superstitious people. Superstition finds its richest soil in an uneducated populace, but intelligent people with a rich educational background frown on superstition and turn to modern science for emancipation from a superstitious age and for the relief which an intelligent and scientific procedure can offer.

The education of a people may be the outcome of a formal educational program maintained and encouraged by the State, or it may be developed and enhanced by other agencies. One of the chief of these is the public library or private libraries available to the public. Without question, the library which we are dedicating this afternoon, established by The Medical Society of the State

of Pennsylvania, will have a far-reaching effect, not only in the education of the people at large but more particularly in the dissemination of medical knowledge within the medical profession itself. Public education, therefore, makes a distinct contribution to the medical profession by aiding in the abolishment of popular superstitions which for ages dominated human action and by developing an educational background among the people at large which will enable them to appreciate and to benefit from the services rendered by the medical profession.

Secondly, if medical knowledge is to be disseminated throughout the state by a group designated as the medical profession, the people at large must be guaranteed, as far as possible, by the state that those who will disseminate this knowledge are professionally and personally prepared to do so. Again the Department of Public Instruction as an agency of the state steps into the picture, for there is placed within the Department of Public Instruction the State Board of Medical Education and Licensure as an administrative board of the Department. Its purpose is to guarantee to the people of this state that those who minister to the sick and the suffering are adequately trained and properly equipped to render this service. The records of the Department show that today there are approximately 13,000 persons licensed as legally and professionally qualified to render medical service. Today no person may practice medicine in the State of Pennsylvania until he has given satisfactory proof that he is at least age 21 and of good moral character, and that he has had a general education of not less than 4 years of approved high school work or its equivalent and not less than 1 year of college credits in physics, chemistry, and biology. The professional requirement consists in attendance on 4 graded courses of not less than 32 weeks of not less than 35 hours each, in different calendar years, in some reputable and legally incorporated medical school or college recognized as such by the State Board of Medical Education and Licensure. Moreover, he must have at least 1 year of service as an intern in an approved hospital.

It is thus seen that the Department of Public Instruction is very definitely involved in the effective operation of the pronouncement of Dr. Osler that the "promotion and dissemination of medical knowledge throughout the state remains our important function." In behalf of the Superintendent of Public Instruction I desire to commend The Medical Society of the State of Pennsylvania upon the spirit shown in the erection of this library building, which will be of service not only to the profession but to the laity,



Library

"The promotion and dissemination of medical knowledge throughout the state remains our important function."—Sir William Osler.

and to assure the society of the continued coöperation and support of the Department of Public Instruction in the furtherance and maintenance of proper and efficient medical practices within the Commonwealth.

DR. BUYERS: It is with pleasure that I introduce to you Dr. Arthur W. Booth of Elmira, N. Y., representing the Board of Trustees of the American Medical Association.

DR. BOOTH: When I learned I was to come to this meeting representing the American Medical Association I was gratified. I feel very much drawn to Pennsylvania for I have many University of Pennsylvania classmates and other friends here. And, as I just told your Governor, my great-grandmother came from Milford, Pa. I live just over the border from Pennsylvania and gaze daily across at your beautiful Blue Ridge Mountains.

Pennsylvania is looked upon as the cradle of liberty and of medical education. There was a school prior to the Philadelphia school, I believe, in Mexico, but the first real medical education on this continent began in Philadelphia in 1765, when Drs. Morgan, Shippen, and Rush, students

from Edinburgh, brought with them the Anglican ideals of medicine. You have a wonderful historic background. The hospitals in Pennsylvania are the earliest civic movements; no other state sponsors so many splendid institutions in remote districts, such as the one recently rededicated at Sayre. Your pioneering continues in the medical postgraduate work started within the past few years by your society, which brings from your centers of research to country physicians medical teachers with knowledge of progress in our science which they need and which they are unable to return to their medical schools to receive. You are now pioneering again in the erection of this building, one of the first to be erected by a state medical society. Any member can here avail himself of medical literature, and there is no excuse for his not doing so.

All these things in Pennsylvania seem a most adequate challenge to those calling for state medicine. No one could look upon such a group of men as are gathered here today and truthfully say that 75 per cent of the people in Pennsylvania are not receiving needed medical attention. No one could believe that the poor are being thus

neglected. As a representative of the American Medical Association's Board of Trustees, I may say, unofficially however, that I am not so much worried over the prospect as I was a few months ago. Some who have been against us are beginning to see the light. We can breathe much easier on the topic of compulsory health insurance. There has been and there will be a change. But leadership must continue to spring from the American Medical Association and its constituent and component societies. Never forget that we represent a true profession and not a trade. In distinguishing between the two I quote from George Herbert Palmer, who said, "Yes, I work for Harvard and Harvard pays me, but I would gladly pay for the privilege of doing so if I could afford to." Go forward with that spirit.

DR. BUYERS: We are highly honored today in having with us the Chief Executive of the Commonwealth of Pennsylvania. Governor Pinchot has made possible much of the great opportunity which The Medical Society of the State of Pennsylvania has had in the State's Emergency Relief and Child Health programs.

GOVERNOR GIFFORD PINCHOT: I am very happy to be able to congratulate The Medical Society of the State of Pennsylvania on the possession of this beautiful building. It is indicative of the spirit of your society.

I am glad for the small part I have been able to play in making possible the work of the Medical Society in Emergency Child Health work in 52 counties throughout the state; however, I want to say a few words from a different point of view. In a very real sense I want to acclaim the entrance of the State Medical Society into politics. That does not mean what you think it means. There are few things in my present term which have meant as much to me as the fact that the Medical Society has taken a hand in the civic affairs of this Commonwealth. Your efforts have contributed to the life of the Commonwealth, not only in making Pennsylvania a better place in which to live but also in making the health of the people better.

As you know, I am a forester by profession, and as such my deepest interest is in the conservation of natural resources. We cannot have a happy state nor build up a sound citizenry without the conservation of the health of the people. I have been most delighted in the part the Medical Society has had in organizing the Emergency Child Health Work.

It is fitting that this beautiful building should center the interest of your Society in Harrisburg, where the laws of our Commonwealth are made. Nothing is more necessary than that a body of men such as this should take part in the making

of laws, which provide that the health of the people be maintained. Again, I congratulate you.

DR. BUYERS: Dr. Theodore B. Appel, Secretary of Health of the State of Pennsylvania, bears greetings.

DR. APPEL: It is a pleasure for me to bear greetings to The Medical Society of the State of Pennsylvania. I am one of those dreamers who dreamed dreams, and this moment brings the realization of one of the fondest of them.

The Department of Health is second to no other in close relationship with The Medical Society of the State of Pennsylvania. Our work cannot be done without the whole-hearted coöperation of the Medical Society membership. I hope and believe that it will be even closer in the future.

Reference has been made to the Medical Society influence in the Emergency Child Health work. I too should like to bring to attention another state and county medical society contribution to sickness service throughout the state; namely, the State Emergency Relief Board's plan for emergency medical care under the director-



General Office as Seen from Lobby

ship of Dr. Harold A. Miller. I have been a member of our Medical Society for some 40 years and within the past 3 years have seen the climax of State governmental recognition of the organized medical profession manifested in requests for advice and help in large governmental health work. This means much to the public, and certainly it means that we have gained in service and influence.

In the days of the presidency of the late Dr. John B. Roberts (1894), the necessity for a permanent home for the State Society became apparent. Some of us dreamed of a permanent home in Harrisburg such as this, so that the purposes of the Society might be more closely allied to the health and welfare work of the Commonwealth. The first real step was the purchase of a building in 1922, which was not just satisfactory but which served us well as we continued to think of one day having such a home as this. It is a very real joy to be here at the dedication of this building.

DR. BUYERS: We are a bit ahead of schedule and I will at this time call upon Dr. Edward B. Heckel, president of The Medical Society of the State of Pennsylvania in 1913-14, and for 7 years

chairman of the Board of Trustees of the American Medical Association.

DR. HECKEL: I am very happy to be here to join in this celebration, marking an epoch in the development of The Medical Society of the State of Pennsylvania. Our entire membership is to be congratulated on this realization of the dream of many years.

DR. BUYERS: Dr. Stanley D. Conklin, secretary of the Bradford County Medical Society, will present the portrait of Dr. C. L. Stevens.

DR. CONKLIN: Anyone familiar with the history of The Medical Society of the State of Pennsylvania knows of Dr. Cyrus Lee Stevens' long term of faithful service, an unusual service given cheerfully in spite of a busy life in the general practice of medicine. He typified the doctor of the old school. His work in the various offices which he held in the organized medical profession of this state stands out preëminently as a milestone for the younger members of our profession. The clear-sightedness of Dr. Stevens was frequently brought into play in the early work of our State Society, when mature judgment was required to steer the ship of state regarding medical affairs.



Main Corridor Looking Towards Lobby

One could recite a long and exhaustive history of Dr. Stevens' life, but the time allotted to me this afternoon will not permit it, so I will review briefly some of the more important things he did:

Cyrus Lee Stevens, physician and surgeon, was born at Stevensville, Pennsylvania, March 10, 1851. He received his preliminary education in country schools and then taught there. For a year he was principal of the East Smithfield, Pennsylvania, public schools. He was graduated from Lafayette College in 1876 with the degree of Bachelor of Arts, receiving the degree of Master of Arts from that institution in 1880. During 1876-78 he was tutor in natural science at Parsons College, Fairfield, Iowa. He was graduated from the College of Physicians and Surgeons, Keokuk, Iowa, in 1880, with the degree of Doctor of Medicine. He was also a private student of Dr. Joseph H. Hughes, dean of the college. In his first year at this institution he received first prize for notes on the lectures in chemistry. During the summer of 1880 he visited hospitals in New York, Boston, and London. This same year he received an appointment to the Central Turkey Mission as medical missionary. He was made professor of Surgery and Medicine in the medical department of Central Turkey College at Aintab, Turkey-in-Asia, where he remained for 3 years. Returning to New York he served as superintendent of the New York Postgraduate Medical School and Hospital during 1884-85. In the latter year he located in general practice at Athens, Pennsylvania.

He was admitted as a member of the Bradford County Medical Society in 1885. He was elected president of that society in 1890 and served as its faithful secretary for the year 1888-89, also from 1909 until the time of his death in 1923.

Dr. Stevens served as secretary of The Medical Society of the State of Pennsylvania from 1897-1918, and as its president in 1919. He also served the society as a member of many of its committees. He was a member of the American Association for the Advancement of Science.

He was one of the founders of the PENNSYLVANIA MEDICAL JOURNAL and its editor from 1904 to 1920. By his unselfish devotion to the work he was largely instrumental in placing it among the high-class medical publications.

To quote from the resolutions adopted by the Board of Trustees of the State Society in June, 1923, on the death of Dr. Stevens: "The impress of Dr. C. L. Stevens as an educator, physician, humanitarian, and faithful officer may be found throughout many of the records of our Board of Trustees, and his influence for the best in the future development of the high purposes of our society will continue through many years."



View of Archives Room

The Bradford County Medical Society welcomes the opportunity of presenting this oil portrait of Dr. Stevens, whom we loved, honored, and revered, to The Medical Society of the State of Pennsylvania for the adornment of the walls of its Board room and to serve as an inspiration to the present members of the Board of Trustees and their successors. His memory is a very tender one to all of us. His unselfish life was spent laboring in the service of his patients and for the advancement of the highest purposes of his county, state, and national medical societies. His record of service for others always will remain a great inspiration to us.

DR. BUYERS: It has been said that in the death of Dr. Cyrus Lee Stevens The Medical Society of the State of Pennsylvania lost the greatest single contributor to whatever service to the public the society may have originated, or whatever advancement in organization it may have made during his long term in office. We are grateful to his own county medical society for this artistic interpretation of the countenance and the character of this honored leader. It will always remain a symbol of inspiration to us and our successors.

We express appreciation also to all who have contributed to this occasion by taking part or by their presence.

Adjournment.

EDITORIALS

MEDICAL ECONOMICS

Retiring President's Address to a County Medical Society

It is the annual custom of the component county medical societies of The Medical Society of the State of Pennsylvania for the retiring president to read an address. These addresses with rare exception are devoted to scientific subjects. The retiring president could very well take advantage of the custom to submit a report of his stewardship for the year, give the essential features of the activities of his county society in matters pertaining to organized medicine, and stress what the county society should do to coöperate with the officers of the State Society and the American Medical Association.

In this number of the JOURNAL, page 372, will be found the report of the retiring president of the Dauphin County Medical Society read at the meeting held January 8, 1935, who stated that rather than read a paper on some scientific phase of medicine he chose to discuss "Some Economic Ills of the Medical Profession."

Many of the features covered are exemplary and worth while being brought to the attention of the members. He aptly refers to the growth and extension of hospital dispensaries and wards and other metamorphoses; their service to the poor; those that cater to all classes of people, many able to pay for the same; the establishment of various types of clinics, particularly covering the field of specialized medicine and medical practice. He states that the most alarming feature of their activities is the unintentional education of the public to expect free medical service. The well baby clinic, later preschool examinations, free immunization against diphtheria, check-up by school physicians and dentists, tuberculin tests, roentgen-ray examinations, *etc.*, accustom the child to various sorts of free medical service, and it is no more than natural that the children should leave school with the idea that medical service should not involve expense, and naturally take advantage of the hospital clinics as the need develops.

The following reference to local conditions shows that Dauphin County is having the same difficulty as many of the other counties in the state.

A study was made by this county society regarding free service rendered during 1933 by the 2 hospitals located at Harrisburg, namely, the

Harrisburg and the Polyclinic. There were 78,799 dispensary examinations and treatments; and 2614 operations were performed as charity. The value of this service was estimated to be \$209,499, which naturally does not include any estimate of the value of ward service nor obstetric service. He states that these 2 hospitals deliberately encourage pay patients to avail themselves of dispensary and ward service and artfully evade responsibility for medical fees; thus they cheerfully enter into competition with the medical profession and render services at prices below those usual in private practice. Attention is called to the unfortunate situation that lay boards direct and dictate the policies of hospitals and clinics, and demand of the doctor the donation of medical service. Frequently, should he protest, he is informed that he can resign from the staff if not satisfied with the conditions and policy of the institution.

A very important reference in this address is to the failure to combat the evils existing due to the lack of unity among the doctors. For some reason, jealous pride or otherwise, physicians will not coöperate to the fullest extent in matters vital to the profession economically. Too frequently physicians will approve policies in the county society meeting and then decide differently as to what they will do individually. He considers this has been demonstrated in Dauphin County where 3 important measures designated to improve economic conditions languished and failed because, as individuals, the membership did not give full coöperation, although when the policies were presented before the society not one dissenting vote was registered; *viz.*, the Medical Credit Bureau, the Diphtheria Immunization Campaign, and the effort to have the hospitals refer compensation cases to the private practitioner.

The Medical Credit Bureau failed because many of their members having joined the credit bureau failed to report delinquent patients and did not avail themselves of the services offered. Consequently the "dead beat" continues to victimize the doctors. The Diphtheria Immunization Campaign failed because it was impossible to obtain a complete report from participating doctors, and being unable to show the exact number immunized made it impossible to demonstrate to the Pennsylvania Department of Health and various agencies that the medical profession had efficiently completed the immunization to the

extent that would warrant the withdrawal from the field of the Department of Health and other agencies. The procedure of hospitals referring compensation cases to the private practitioner failed because the few dispensary patients sent to the physician's office returned to the hospital with the statement that the doctor did not desire to do that type of work. It is most unfortunate that the doctor did not refer these cases to someone competent and willing to take care of them rather than jeopardize the plan of the society by summarily sending them back to the dispensary.

The statements herewith made are further evidence of the difficulty in inducing a large number of physicians to abide by the will of the majority and carry on to a satisfactory conclusion policies to the best interest of the medical group. This is another example of the necessity of educating the physician to his responsibilities, as too frequently he will not read the references pertaining to these features that appear in the medical journals that come to his desk, or the special correspondence sent to him by his county and state societies. Too often those who need the instruction the most are the ones who absent themselves from medical society meetings and rarely or never open their medical journals. Too busy!

Reference is made to the fact that from past experience hospitals cannot be depended upon to support any measures advantageous to the medical profession. This attitude was shown during the 1934 session of the New York State Assembly when the Crawford bill was introduced, which would impose a fine on a hospital supported by private or public contributions for accepting money from patients in a free dispensary. It was defeated, as was another bill which provided that persons able to walk and seeking free medical treatment must apply to a central registration bureau where claims for charity could be investigated. A lobby maintained by the New York State hospitals was the cause of the defeat of both bills. A similar recommendation for such a central bureau of investigation made by the Dauphin County Society to the 2 Harrisburg hospitals was met with a flat refusal of one and a noncommittal attitude on the part of the other.

The one criticism to be made of the able address is that the retiring president, in offering a solution to the problem now confronting the medical profession, presents the need for some form of health insurance. Unfortunately his attitude on the need for health insurance is out of tune with his State Society and the American

Medical Association, albeit he pleads for unity of action on the part of physicians in attempting to solve the problems of some of the economic ills of the medical profession.

PSYCHOSES ASSOCIATED WITH PREGNANCY

This interesting subject is reviewed by Byron C. Smith in a paper before the Kansas-Missouri Psychiatric Society and published in the *Journal of the Kansas Medical Society*, June, 1934.

In reviewing groups of patients suffering from psychosis associated with pregnancy in the Topeka State Hospital, the author has found that 30 per cent gave a history of mental illness in the family. He believes that faulty environment in early childhood will be found in the history and studies of some cases. A case citation is likewise given showing involvement of the sympathetic nervous system in endocrine dysfunction. Toxemia, chorea gravidarum, hemorrhages, infections, and embolisms are likewise discussed as etiologic factors.

Pregnancy is a predisposing and precipitating factor in the psychopathology associated with the puerperium. The psychologic reaction of a patient to her pregnancy is affected by heredity, environment, the sympathetic nervous system, endocrine dysfunction, puerperal toxemias, post-*puerperal* hemorrhages, infections, and embolisms. The prognosis in the psychosis associated with pregnancy depends on the physical health of the individual, the type of mental abnormality, the therapy used, and the patient's reaction.

THE DOCTOR'S DESK

Did you ever find your way into the doctor's sanctum sanctorum and glance at the literary accumulation on his desk—shall I say of years? Certainly, a vast collection ranging from samples with attached literature to real gems of medicine with their wrappers still uncut.

One is told on good authority, that as the result of the effects of the heat, the cold, or from exhaustion, about every 2 years the doctor finds himself seated at his desk glaring at the conglomeration before him. He mutters to himself, "I shall clean out this mess." As he does so, he begins a soliloquy about like this:

"Well, well, a reprint on surgery. Now, isn't it nice that such a big man would remember me." He looks again and exclaims, "By gad, that fellow died 3 years ago! And here is one by a pediatrician. Gee, I thought he was still an intern. And here's one on economics. I thought the war

was over. And this, compliments of the Cancer Commission, dated, let's see, 3 years ago. And here's one on psychiatry. What the hades do I know about psychiatry! Here is another, to me a mystery story, a scientific treatise written by a neurologist. What's all that wrapped stuff—the State Journal, the A. M. A.,—I wonder who is president of the State Medical?"

"And what's all this?" He looks at so-called medical matter quietly at rest between pages and pages of advertisements, in little magazine form. Quickly, he turns to the joke page, cuts it out and throws the rest of the chaff in the waste basket.

Then he comes to civic movement circulars. Request after request for the use of his name on committees; requests for funds; and requests to become interested in birth control, the extermination of rats, and to endorse a new insecticide.

To be or not to be is the question. He begins to clean up. Away go the circulars; the pile on the left he keeps, the right is to be thrown away. He finishes. The right pile contains little—into the basket it goes with one sweep; the left is pushed back on his desk. He looks and says to himself "a good job." The phone rings, and out he goes. But the doctor's desk in reality is just about as he started—only a few things are in the waste basket. There is still the conglomeration; there is still the disorder on that desk.

An interesting study in psychology is the doctor and his desk. His secretary knows it; his wife knows it; and both guard zealously the mass of junk. But when the old boy passes on, they drop a tear as they transport baskets of useless stuff to its "ashes to ashes." They realize, but cannot explain, that it was a real part of the old man himself, something he cherished, something he had hoped some day to enjoy; but, alas, the hours were too short. He was a practitioner of medicine.

PREMATURE BURIAL

Every now and then the press publishes an account of some one possibly having been buried alive. No doubt all the cases of premature burial are myths; especially if a modern undertaker has officiated.

Declaring that he had seen a faint flush come over the face of the deceased, a minister in Aberdeen, Scotland, recently stopped the funeral service for forty minutes while a doctor was called to investigate. The clergyman had just begun the service when he suddenly stopped and declined to continue until satisfied that life was extinct.

Under the present condition of death certifica-

tion there is practically no danger of any one being buried alive. A muscular movement on the part of the deceased is possibly the basis of some of the reports. No person should be buried until the deceased has been seen by a physician, and no physician ought to give a certificate until he has seen the body. Under the present system a physician may give a death certificate even if he has not viewed the remains; all that is usually necessary is that he should have been in attendance during the last illness, and seen the patient within a week of death. Is the observance of this latter procedure always to the best interest of all parties concerned?

EDMUND B. PIPER, M.D.

Dr. Edmund B. Piper, of Philadelphia, died suddenly of a heart attack at his home January 15, 1935, aged 53. Dr. Piper had been suffering from a cardiac condition for some time.

He was born in Williamsport, Pa., April 20, 1881, received his preparatory education at the Cheltenham Academy, and was graduated from Princeton University in 1902. The following 5 years after leaving Princeton were spent in the commercial world, when he entered the University of Pennsylvania Medical School, graduating in the class of 1911. He served his internship in the University of Pennsylvania Hospital, and in 1912 was appointed chief resident.

In 1917 he enlisted in the Medical Corps of the United States Army, and was sent overseas as commanding officer of Field Hospital 42. He was promoted through to lieutenant colonel and was cited for exceptional, meritorious, and conspicuous service.

He was appointed associate in obstetrics in the University of Pennsylvania Medical School in 1917, clinical professor in 1925, and professor in 1927, which appointment he held at the time of his death. He was obstetrician to the University of Pennsylvania Hospital; chief of staff, Philadelphia Lying-In Hospital; obstetrician and gynecologist to the Philadelphia General Hospital; and was consulting obstetrician to the Bryn Mawr (Pa.) Hospital, the Kensington Hospital for Women, Preston Retreat, and Misericordia Hospital.

He devised a pair of obstetrical forceps to be used for the delivery of the after-coming head.

He was a member of many medical societies, the Military Order of Foreign Wars, and Military Order of the World War. He was an extensive contributor to the medical literature.

Surviving are his wife and 3 daughters.

EMERGENCY MEDICAL RELIEF IN PENNSYLVANIA

HAROLD A. MILLER, M.D., *Director, Harrisburg, Pa.*

The Emergency Medical Relief program has passed its first anniversary and I wish to take this opportunity to express to the respective county advisory committees my appreciation of their splendid coöperation. Their's has been a most difficult task.

I also wish to thank the individual physicians for their willing and understanding participation in both the letter and spirit of the program. At this time I would request that each and every physician send in to his county office at once any outstanding medical orders which he may have on hand, in order that this office can reasonably estimate the contingent liability and prepare for the payment of the same. Bills must be submitted to the county office immediately upon the completion of the case. Bills submitted more than one month after the date of the last patient contact will necessitate an explanation.

There have been many misunderstandings on the part of all concerned, but there is a vast difference between the Emergency Medical Relief service, with its limitations, and a private practice or complete health service. In private practice limited service is unknown to either the patient or the physician. The anxiety of the patient creates unusual demands and the interest of the physician prompts him to meet these demands with or without compensation.

It has been the endeavor of the director to administer the program to the best interests of all concerned, but the amount of money available necessitated limiting the amount expended on minor ailments, such as common colds, mumps, chickenpox, and measles, thereby permitting additional compensation for more serious conditions. Every effort was made to bring about an equitable distribution of the funds to each county.

During the first year of operation of the Emergency Medical Relief, \$1,211,514.52 was paid to the physicians of Pennsylvania. This sum does not include money paid to nurses, dentists, and pharmacists. In addition, a considerable amount of money has been paid to physicians for the preliminary examinations and subsequent treatment of 12,000 transients. Accidents during the month of December occurred on the average of nearly 100 per day, for the care of which the physicians were compensated by the Relief Department through the State Workman's Compensation Bureau.

Bills for December, 1933, and January, 1934, were small in amount, but during the period—December 1, 1933, to November 30, 1934—of the total amount of money spent for the necessities of life (food, fuel, shoes, clothing, and medical relief), only 1.5 per cent was paid to the physicians. This would suggest the necessity of expanding the program to cover diseases or conditions not now included, and with a reasonable compensation for the same.

The overhead of the medical department is 5 per cent, which means that of every dollar allocated to medical care, 95c is put into the pockets of those in the field participating in the medical program.

It must be remembered that only food sufficient to maintain health and strength is given to the family. A close scientific study is made of the amount of fuel necessary to heat a given number of cubic feet and only this amount of fuel is allowed. Shoes and clothing furnished are of good quality but purchased from the manufacturer and distributed to the relief recipient in the minimum amounts necessary. A medical order is an

open order, and the quality is guaranteed by the medical profession. The individual physician is expected to recognize economic limits and the minimum service clause.

It is not possible, nor would it be feasible or desirable, to estimate the minimum amount of medical care which the average family would require over a given period of time; therefore, it is left to the family physician to render minimum service at a low cost for emergency conditions when consulted by his patients.

It is recognized by the State Medical Advisory Committee and the Relief Department that the compensation paid to physicians does not justify the assumption that the physicians were compensated for a health service, and it is to be hoped that the future will provide sufficient funds more nearly to meet the needs of the indigent. The State Medical Advisory Committee is familiar with every detail of the program and every action of the director, and they are now reviewing the past with the thought of requesting such changes as may be found to be of mutual benefit to all.

STATE BOARD EXAMINATION

The following questions were submitted by the State Board of Medical Education and Licensure at the examination conducted Jan. 8 to 10, 1935.

Medical and Surgical

Physiology, Pathology, Bacteriology, and Physiologic Chemistry

1. State the serious abnormalities that are apt to develop from hindrance to nasal respiration during the first 10 years of life.
2. What are the chief systemic effects of a serious lesion (a) in the thyroid gland? (b) in the parathyroid gland? (c) in the anterior lobe of the hypophysis?
3. Explain and illustrate a normal reflex. How are reflexes altered in tabes dorsalis? in poliomyelitis anterioralis? in drunkenness?
4. Discuss briefly the normal process by which carbohydrates are prepared for metabolism; also, discuss alterations which result in diabetes mellitus.
5. What further investigations are suggested (a) by the finding of persistent albuminuria? (b) by a leukocytosis? (c) by a hyperchlorhydria?
6. What lesions in respect to the heart may cause sudden death? Describe one.
7. Describe the pathologic changes in the bladder following urethral obstruction such as from a hypertrophied prostate gland.
8. Explain the following from a physiologic point of view: (a) urticaria; (b) fatigue; (c) diplopia.
9. Explain how each of the following bacteria may be identified, and describe the type of lesion produced by each: (a) tubercle bacillus; (b) typhoid bacillus; (c) gonococcus.
10. Define "carrier" as used in bacteriology. To what diseases does it apply practically? Why is such a person particularly menacing?

Diagnosis, Symptomatology, Medical Jurisprudence, and Toxicology

1. Name the minimum poisonous dose for an adult of the following: (a) strychnine; (b) atropine; (c) morphine; (d) mercuric chloride; (e) arsenic.
2. Explain the doctor's duties on the witness stand as to being a witness of fact and an expert witness.

3. Why is it that in a case of cerebral thrombosis, or hemorrhage, it is a common occurrence for the arm to make less complete recovery than the leg?

4. Name some of the general diseases of which disease or lesions of the eye are symptomatic.

5. Discuss the early clinical history of carcinoma of the lower colon and sigmoid.

6. Give the usual pulse-respiration ratio in lobar pneumonia. How does this differ from the normal figure?

7. What is the usual cause (a) of bilateral wrist drop? (b) of unilateral wrist drop?

8. What diagnostic possibilities are suggested in the presence of bilateral sciatica?

9. Discuss the information obtainable by simple palpation of the chest.

10. Discuss the information obtainable by abdominal auscultation.

Gynecology and Obstetrics

1. Describe retroflexion and retroversion of the uterus, and tell what you would do to correct each.

2. State briefly the most important prenatal instructions you would give to the prospective mother.

3. Name several causes of uterine hemorrhage, and outline your management of the same.

4. Give briefly 3 possible, 3 probable, and 3 positive signs of pregnancy.

5. What preparation and postoperative treatment should be instituted in order to secure the best results after operation for the repair of the perineum?

6. Differentiate "morning sickness" from pernicious vomiting.

7. What are the symptoms and signs of pelvic inflammation in the female and under what conditions would operation be necessary?

8. What important items of information should be elicited at the first examination in a labor case.

9. Describe the symptoms caused by *Trichomonas vaginalis*; what treatment would you give?

10. Define and differentiate the 3 stages of labor.

Anatomy and Surgery

1. Describe the fasciæ of the hand. How are infections from a palmar abscess influenced by it?

2. On the basis of its anatomic distribution, what functions would be lost if the ulnar nerve were cut where it passes the elbow joint?

3. What danger signals should be looked for during the administration (a) of ether? (b) of nitrous oxide? (c) of spinal anesthesia?

4. Give the differential diagnosis and the treatment of chronic enlargements of the testicle.

5. How would you treat a simple T-fracture of the humerus at the elbow joint in a boy of 10 years? What measures would you institute for complete restoration of function of the joint?

6. Give the differential diagnosis and the management of tuberculous lymphadenitis of the neck.

7. Give the causes, varieties, symptoms, diagnosis, and treatment of abscess of the lung.

8. Discuss the common etiologic factors, the symptoms, the diagnosis, and the treatment of intra-abdominal hemorrhage.

9. Describe a unilateral temporomandibular dislocation; give its etiology, diagnosis, and treatment.

10. Give the indications and contraindications for tonsillectomy. What are the important postoperative dangers, and what measures would you take to avoid them?

Practice, Materia Medica, Therapeutics, Hygiene, and Preventive Medicine

1. Outline in detail the hygienic and sanitary measures that are indicated when a case of variola is discovered in a resident of the community. What action should be taken if a person, nonresident of that community, is taken sick with this disease?

2. Describe the process of disinfection needed after a case of acute contagious disease that has occurred (a) in a sick room; (b) in a school building; (c) in the family of the afflicted person.

3. Describe the clinical symptom-complex in a case of acute coronary occlusion. What is the treatment for this condition: (a) immediate? (b) after-care?

4. Name the official preparations of cinchona; give their dosage and their therapeutic value.

5. Name the important official alkaloids and their salts; give the average dose of each preparation, and the therapeutic value of each group.

6. Describe the treatment, both prophylactic and active, for (a) tetanus neonatorum; (b) ophthalmia neonatorum.

7. What measure, other than drugs, would you resort to in the treatment of a patient, age 50, with chronic arterial hypertension?

8. Describe a modern method of purifying swimming pool water, and also the bathing establishment. Indicate the standards you would demand for hygienic conduct of a public bathhouse.

9. Outline the personal hygiene you would advise for middle age: (a) in males; (b) in females.

10. Give the official names and doses of 3 different drugs or their derivatives that are useful in the treatment of vomiting. How may each drug be used?

SATURDAY MORNING CLINICS AT THE PHILADELPHIA GENERAL HOSPITAL AMPHITHEATRE

March 2

11:00 a.m.-12:00 m., Genito-Urinary Clinic—Urinary Lithiasis, Willard H. Kinney.

12:00 m.-1:00 p.m., Oral Surgery Clinic—Robert Ivy and Lawrence Curtis.
JOHN O. BOWER, *Chairman*.

March 9

11:00 a.m.-12:00 m., Modern Conceptions of Chronic Renal Disease: Pathogenesis—Diagnosis—Treatment, Edward Weiss.

12:00 m.-1:00 p.m., Medical Clinic, O. H. Perry Pepper, professor of medicine, University of Pennsylvania.
RUSSELL S. BOLES, *Chairman*.

March 16

11:00 a.m.-12:00 m., Orthopedic Clinic, Walter G. Elmer.

12:00 m.-1:00 p.m., Gynecologic Clinic, Edward A. Schumann.
J. H. CLARK, *Chairman*.

March 23

11:00 a.m.-12:00 m., Neurologic Clinic, M. A. Burns.

12:00 m.- 1:00 p. m., Ocular Lesions in Arteriosclerosis, Bright's Disease, etc. Illustrations with water colors, George E. deSchweinitz.
J. W. McCONNELL, *Chairman*.

March 30

11:00 a. m.-12:00 m., The Diagnosis and Management of Hypertensive Heart Disease, Thomas Klein.

12:00 m.- 1:00 p. m., Arteriosclerosis in Diabetes and Its Treatment, Edward S. Dillon and L. H. Hitzrot.
B. P. WIDMANN, *Chairman*.

COMMENTS AND EXCERPTS

Science and Research

Lobar pneumonia is being treated with encouraging results by artificial pneumothorax, Dr. Francis G. Blake, of Yale Medical School, reported at the meeting of the Connecticut Clinical Congress.

The mortality rate from lobar pneumonia can be greatly reduced by this method of treatment, experience with a large series of cases at the New Haven Hospital showed. The lung must be collapsed on or before the third day of the disease. If no adhesions are present from previous pleurisy, the treatment causes a dramatic drop in temperature and relief from pain.—*Science News Letter*.

Science News Letter reports the use of alkalis for the treatment of silicosis. This treatment has been tried by Earl J. King and Margery Dolan of the department of medical research, Banting Institute at the University of Toronto.

The results of this form of treatment were too erratic for any conclusions to be drawn, the investigators reported to the Canadian Medical Association.

The treatment was based on their observation that when silica, either in solution or as powdered quartz, gets into the blood stream from the digestive tract it is quickly eliminated by the kidneys. The same thing occurred when solutions of silica were injected directly into the veins. The body apparently has a very efficient mechanism for disposing of silica once it has entered the blood stream in soluble form.

Silicosis, however, is a disease produced by inhalation into the lungs of very fine particles of silica. Studying this aspect, the Toronto investigators found that when silica in solution was introduced directly into the lungs of experimental animals, two-thirds of the silica was eliminated from the body. When finely powdered quartz dust, such as would be inhaled in dusty atmospheres, was introduced into the lungs, a little less than 2 per cent of the amount of silica given was eliminated.

These experiments seemed to indicate that the body fluids circulating in the lungs could dissolve silica even when present in the form of highly insoluble crystalline fragments of quartz.

Tests on miners and on healthy laboratory workers who had been exposed to a large amount of quartz dust for a day showed, as might be expected, that they were actually eliminating more than the normal amount of silica. Evidently the mildly alkaline tissue fluid in the lungs was dissolving some of the silica inhaled and as a result it was getting into the blood stream and being eliminated.

In the hope of accelerating this natural effort of the

body to rid the lungs of disease-producing silica, the investigators tried giving alkali medicines. Results, however, were inconclusive.

Food and Drug Seizures

Federal Food and Drug inspectors in December seized more unfit cream than in any previous month. This activity is part of a campaign against use of objectionable cream in butter making. The creamery industry is enthusiastically supporting this effort which is evidently getting results, since December seizures of unfit butter totaled only 2800 pounds—a sharp drop from the November total of more than 11,000 pounds. The quantity of cream destroyed in December, almost 6000 gallons, although large in the aggregate, is the result of work in 12 states and represents less than 0.1 per cent of the cream produced for butter making in the United States. In checking up the quality of cream and butter, the inspectors also found and removed from the market several lots of butter that were short in weight or low in fat content.

Apple inspections in December resulted in the seizure of 4300 bushels. During November and December, a period of heavy seasonal movement of apples, nearly 10,000,000 bushels which were satisfactory from the standpoint of spray residues moved in interstate commerce. One lot of dried apple chops was confiscated as were 90 crates of broccoli. Two lots of a "digestible cocoa compound," which analysis showed contained a dangerous amount of lead, were seized at Jersey City. In Topeka, Kansas, 173 jars of pickles sweetened with saccharin were seized. The pickles had been shipped by a manufacturer in St. Louis, Mo.

Salad oils continue to figure prominently in reports of legal action, because some packers are still reluctant to remove the misleading designs (Italian verbiage, flags, and olive branches) from the labels of their products, which commonly are composed of sunflower seed oil, cottonseed oil, corn oil, and sometimes a small percentage of actual olive oil for flavor. Seventeen shipments of misbranded oils were seized during December. Two lots of high-proof cider sold as champagne and labeled "champyne" were seized in Washington, D. C. Work under the canned-food amendment of the Food and Drugs Act resulted in the confiscation of 1 lot of substandard canned cherries and 3 of substandard canned peas.

The following commodities were seized during December because of dirt, insect infestation, decomposition, or mold: 12 shipments of tomato puree, catsup, and paste; 550 cans of frozen eggs; 360 sacks of potatoes; 8 lots of canned shrimp from Mississippi, Alabama, and Florida, and 1 lot of 3000 pounds of frozen shrimp from Texas; 4 consignments of canned California mackerel, 2 of Italian chestnuts, and 1 of walnuts; ripe olives, cold-pack strawberries, figs, canned huckleberries, and peaches.

Seizure actions were initiated against the following medicinal products because of false and fraudulent therapeutic claims on their labels: "Rosenberg's Improved Great Century Oil" shipped from Lititz, Pa., and labeled as a treatment for rheumatic pains, neuralgia, sore throat, lame back, horse colic, and cramps; "Garlic Tablets" manufactured in New York City, bearing claims of vitamin A, B, and C potency, and efficacy in high blood pressure, rheumatism, arthritis, poor circulation, asthma, kidney trouble, diphtheria, tuberculosis, and parasitic worms; "Cozzins New Formula for Asthma" shipped from Brooklyn, N. Y., and "Calafoliquid" from Los Angeles, Calif., both represented as treatments

for asthma and hay fever; "Dr. Duhaime's Red Cross Pills" made at Fall River, Mass., and offered for anemia, kidney and bladder troubles, indigestion, and blood impurities; "Grainalfa" and "Glandictine" originating in Los Angeles and sold under claims of benefit in glandular disorders, and in mineral and vitamin deficiencies; "Edgerton's Medicated Stock Salt Brick," Atlanta, Ga., for disorders of livestock; and "Elixir Ampirin" from Oxford, N. C., a purported treatment for grippe, nervousness, loss of sleep, and physical and nervous strain.

Other drug products involved in seizure proceedings were substandard tinctures and fluid extracts of aconite, digitalis, and squill, seized at New Orleans; crude cascara bark containing excessive rock, dirt, moldy bark, and other impurities; and "Compound Epsom Salt Tablets" mislabeled as to composition.

MEDICAL ECONOMICS

Cut-throat Medical Competition.—One of the deplorable features of the depression has been the competition for contract medical work which has led in some parts of the country to underbidding, solicitation, and abuses of various kinds. It is true that we can hardly blame needy physicians for going to any legitimate lengths to support their families, but it is also true that competition of a cut-throat character injures the whole profession and must be halted if it is in the power of the state and county societies to stop it. It is not charged that all or even a large part of those in contract work are involved in this injurious underbidding, but it is evident on a moment's thought that the ethical may be ruined by the unethical; therefore it is a matter of everybody's concern, and we are told that nearly 48 per cent of all practicing physicians in the United States are engaged in some form of contract practice. Some are school physicians, some are medical examiners for insurance companies, some are in lodge or fraternal work, others are in compensation service or look after the health of large groups of employees and their families.

The salaries or fees of doctors in these lines of service have suffered badly during the business slump, as has been natural and inevitable, but the reductions have been made worse, it appears, by underbidding and solicitation. It may be that there has been little or nothing of this sort going on in New York State, but it has been so flagrant in some other parts of the country as to call for severe disciplinary action. In St. Louis the County Medical Society has created a Code and Contract Board to handle it.

The St. Louis Board has the power and the duty to investigate any and all written or implied contracts for medical service made by any member of the society. If these contracts are unethical, the member may be brought before the Censors Committee and, if convicted of unethical conduct, he may be suspended from membership. Conduct considered unethical includes direct or indirect solicitation of patients, underbidding, compensation inadequate to assure good medical service, prevention of free choice of physician, *etc.* The member is given a reasonable time to correct any objectionable practices.

The black list embraces not only erring physicians but the institutions that employ them. The Code and Contract Board draws up a list of approved clubs, lodges, hospitals, clinics, and other institutions that use medical service under contract, and the approved

list "shall receive the support and endorsement of the members of the society," according to the official resolution. Members who serve in institutions not on the approved list "shall not be in good standing if they continue their support." Another interesting provision is that "the Board shall adopt policies to insure remuneration for services rendered by the profession to institutions supported by public or private funds, taxes, endowments, *etc.*" Gratuitous services to the indigent, of course, continue.

How far this evil has extended is unknown, but the depression has been so long and severe that it would not be surprising if doctors in many parts of the country had been driven to a kind of competition they would never seek in ordinary times. Once in this sort of thing, it is hard to get out. Business is now on the up-grade, and with the helping hand of their county society behind them, working on the St. Louis plan, they may be able to rise to higher levels. As in another well-known case, the "Spirit of St. Louis" may take them to their goal.—Editorial, *N. Y. State J. M.*, May 1, 1934.

Abstract of Annual Report, 1933-1934, of the Commission on Medical Economics of the Philadelphia County Medical Society

(Concluded from the January issue.)

4. In the April issue of the *Survey-Graphic*, a magazine of "social interpretation," are 4 articles advocating the socialization of medical services in which

(a) Daisy L. W. Worcester pillories the medical profession of California in particular, and the United States in general, for its attempt to prevent further exploitation of the physician and to stop the free treatment in dispensaries of able-to-pay patients, citing the closing of the majority of health centers in the State of California as an outstanding example of the doctors' selfishness.

(b) Prof. C.-E. A. Winslow advocates the control of the nursing profession.

(c) Edgar Sydenstricker again advocates the socialization of medical practice.

(d) Michael M. Davis presents an article entitled "Change Comes to the Doctor," which is a re-write of the same paper presented in Philadelphia under the same title, February 7, 1934.

The commission will devote the next few months to a comprehensive study of the whole situation as it relates to insurance schemes and state medicine, not omitting the question of contract practice. The commission strongly recommends similar activity on the part of the State Society and the American Medical Association in order that through greater knowledge of these problems there may be a firmer organization and a more united front in opposition to any form of differential socialization.

Impressed with the increasing importance and urgency of the problems presented by agitation for insurance schemes, and of State Medicine, the commission felt it its duty to afford the county medical societies of the State an opportunity to learn what had been brought to light by the studies of the Philadelphia group. Accordingly they addressed each county society secretary offering to provide a speaker, if desired. The reaction to this offer brought a most gratifying response.

In every instance the County Medical Society, accepting the offer, defrayed the travel expenses of the

speaker, so that no charge for this educational work devolved upon the Philadelphia County Society.

The Section on Fees for Information to Insurance Companies prepared a folder fixing the responsibility of insurance companies to pay for information requested of physicians in regard to applicants for life insurance.

SECTION ON ENCROACHMENT OF LAY WORKERS ON THE PROFESSIONAL FIELD

EDWARD W. BEACH, *Chairman*

During the year the members of this committee devoted their time almost exclusively to the question of hospital anesthetists, and the activities have thus far been almost entirely educational. Special effort has been made to instill into the minds of the directing bodies of hospitals the idea of establishing departments of anesthesia under the direction of a physician, preferably one proficient in the administration of anesthetics. This is in accord with the recommendations of the American College of Surgeons. During the past 12 months, departments of anesthesia have been established under the direction of physicians in 4 hospitals. Four other hospitals previously had a medical anesthetist.

The legal aspect of the nurse anesthetist is under consideration in California, New York, West Virginia, and Indiana. It is believed advisable to await the outcome of these activities before proceeding to aggressive steps in Pennsylvania.

WORKMEN'S COMPENSATION SECTION

MOSES BEHREND, *Chairman*

The endeavor to secure the adoption of the proposed agreement between The Philadelphia County Medical Society and the insurance carriers, to prepare a schedule of minimum fees acceptable to both parties and to secure the appointment of a Board of Arbitration, has met with no success, owing to unsurmountable objections raised by the representatives of the insurance companies.

Under the law, insurance companies have the right to lift cases, but morally have no right to reduce the bills when properly presented and the charges fair.

After a careful study of the present law and its administration, the committee is of the opinion that the law is unfair to the doctor and detrimental to the best interests of the beneficiaries, and therefore, recommends that the law be changed as follows:

(a) To make the physician a party in interest. By this is meant that the physician should have the right to sue the employer or his representatives for nonpayment of his bills for services rendered.

(b) To eliminate the 30-day limit now placed upon the treatment of the injured worker, and to remove the \$100 limit now payable for 30 days' treatment. The present law does not provide compensation for physician or hospital in cases requiring treatment for longer than 30 days. Since the injured man can only get the best care by being given an unlimited time for necessary treatment and since the physician has a right to remuneration on a per contact basis, the law is at present eminently unfair to employee and physician alike.

(c) To permit limited free choice of physician. It is recommended that doctors should be classified both as to their ability and their specialty, and that the workmen should be permitted to choose from these lists. This should serve to retain to the general practitioner the 70 per cent or more of injured whom he is thoroughly competent to treat.

(d) To eliminate dispensary abuse in relation to compensation clinics. At the present time the hospital col-

lects the fee and divides it with the physician supplying the service. This should be changed to permit the physician to make and collect his own charges for his care and treatment of all compensation cases.

(e) To prepare and have adopted a reasonable fee schedule. Distasteful as such a plan is to the majority of the profession, it does not appear that a satisfactory solution of the problem can be accomplished without a minimum fee schedule acceptable to the carriers and to the medical profession.

(f) It is recommended that physicians throughout the State be organized to suggest and unanimously support legislation looking toward the correction of present evils.

SECTION ON COÖRDINATION OF MEDICAL SERVICE

EDWARD L. BORTZ, *Chairman*

The activities of this section during the past year have centered about the development of curtailed relations between the various social agencies and the medical profession. The rôle of the medical social worker has engaged the attention of this Section because of the different interpretations of the extent of the functions of these individuals. The conflicting views held show that considerable educational work is essential in order to eliminate the misunderstandings that now exist between the doctors and the social service workers.

Perhaps the most outstanding accomplishment was the inauguration of a study to determine the amount of duplication of hospital medical service rendered to high-cost dispensary patients.

The survey embraced 19 hospitals, and a total of 1036 patients, admitted during a 3-months' period early in 1933. This investigation showed that 272 patients had attended 2 or more hospitals in their search for medical care. A complete analysis of this study will appear later.

The Associate Committee for Records makes the following recommendations:

1. A central record room for both the house and clinic records, with the complete unit system of filing records, is the ideal record set-up.

2. A central record room with the unit system of filing the clinic records in the outpatient department.

3. A face sheet to serve as identification and to be a chronologic record of attendance of clinics.

4. A place provided on all sheets for signature of the examining physician. Subsequent visits also to be initialed or signed by him.

5. All sheets to be of uniform size.

6. The unit container to go to each clinic intact.

7. On admission of a dispensary patient to the house, the dispensary record to be sent to the ward and be attached to the house chart for the duration of the hospital stay.

8. If the complete unit system is not adopted, a complete abstract should be made of the patient's hospital stay and placed upon the dispensary records; such abstract to be o.k'd by the house chief or his assistant.

9. The adoption of a general medical sheet with a printed outline of history and complete physical examination, to be filled in by the attending physician.

10. Standardized special clinic sheets recommended by the recognized society of that specialty, which would render such cases valuable for research and assure a more accurate study while in the clinic.

11. Adequate laboratory sheets to be a part of the dispensary record, and that laboratory examinations done in the house be reported on these sheets and so designated.

SECTION ON DISPENSARY ABUSES

L. W. DEICHLER, *Chairman*

This section has met regularly on the third Thursday of each month during the past year, and has submitted *ad interim* reports to the Commission. This report is, therefore, in the nature of a résumé of the year's work, although it contains some new material, and changes have been made in some of its recommendations.

There has been definite progress in alleviating the distressing conditions in our dispensaries in hospitals, which threaten the very life and liberty of our profession, and while the condition of the doctor giving his time to free dispensary service is somewhat improved, much needed reform is yet to be accomplished.

The recommendations which have received favorable action by the Board of Directors are:

1. None should be a member of the staff of any hospital unless he is a member of the County Medical Society. A few hospitals already enforce this requirement, and it is hoped that at an early date it will become universal.

2. The members of the staff of each hospital should be united for their own protection.

3. None should be admitted to any hospital for free service unless with a letter from the family or neighborhood doctor, or a responsible welfare worker, able to certify that the patient is known to be indigent, and unable to pay even a reduced rate for private care.

When discharged from the hospital, the patient should not be permitted to return for further treatment without a certification of his financial condition at the time of return.

Eight of our hospitals (Children's, Frankford, Germantown, Misericordia, Philadelphia General, St. Luke's and Children's, Temple University, and Woman's) are endeavoring to conform with this requirement. Outside of Philadelphia, the Delaware County and the Fitzgerald-Mercy have always used this method to determine eligibility to dispensary services.

This requirement has helped the hospitals in 2 ways:

1. By reducing the number of free ward and dispensary patients by 10 to 15 per cent, and

2. By increasing the occupancy of semiprivate and private rooms by 5 to 10 per cent. The effect of such change of status upon the income of the doctors related to the hospital is obvious.

Patients who pay full ward rates should be charged a minimum fee by attending physicians. This is permitted at the present time in a few hospitals.

Patients whose illness or injury is covered by health or accident policies should not be considered indigent and should be admitted only to pay accommodations in which the physician should be permitted to make charges for services rendered.

SECTION ON HOSPITALIZATION ABUSES

CHAS. A. HEIKEN, *Chairman*

A survey of hospitals in the Philadelphia district was made to ascertain the number of endowed beds, the donors of these endowments, and the amount of fees paid to the physicians attending patients occupying them.

The abuses of hospitalization which require correction and control are:

- (a) The unlimited care of patients in wards, many of whom can pay for services.

- (b) The free care of financially independent patients in endowed rooms, everybody fully paid but the doctor. This is a staff problem which can be handled only by the coöperation of the members of each hospital.

- (c) Accident cases should not be treated free; they

rarely are either poor or paupers. The financial responsibility of each case hospitalized should be determined. The patient should be placed in a semiprivate or private room and his ability to pay be investigated (Delaware County Plan). He can be transferred to a ward if unable to pay for services.

REPORT OF SECTION ON MEDICAL REPRESENTATION ON HOSPITAL BOARDS

RICHARD W. LARER, *Chairman*

The great majority of the hospitals have no real medical representation. Twenty hospitals have no such representation whatever, and even where it does exist, it is rarely of close and coöperative character. When present it is usually in the form of one or more doctors who are members of the Board of Trustees, other hospitals have an executive committee, and a few combine these 2 plans.

The Catholic institutions are, for the most part, governed by members of the Sisterhood, with whom there is rarely any direct contact between the staff and the management. A few hospitals have an advisory committee that consults with the Sr. Superior or a group of sisters, as the case may be. A small group of hospitals have a medical director, a member of the staff, who appears to be the sole governing authority. Others are directed by a superintendent, usually a man. There is absolutely no uniformity in this group of institutions. The Executive Committee accepted as satisfactory to The Philadelphia County Medical Society should be the governing body of the staff and act as the go-between for the staff and Board of Trustees, or other governing body. This requirement is most important and appears to be the only means by which harmony, justice, and full coöperation between all units of the hospital can prevail.

REPORT OF SECTION ON PRESCRIBING AND DISPENSING PRACTICES

DOUGLAS MACFARLAN, *Chairman*

The first activity of this committee was the publication of a questionnaire, relative to the attitude of the members toward nostrums and untried proprietary preparations, which produced practically no response, showing clearly the apathy of the profession to this as well as to other medical economics problems.

An exhibition of the methods of exploiting proprietary preparations in the daily press and in magazines was placed for a short time in the County Medical Building.

The Section will now proceed to follow up its publications in an effort to bring about a more general use of official products by physicians, and to obtain recognition of the principles set forth in the formulary through its immediate distribution.

SECTION ON HOSPITAL ECONOMICS

JAS. B. MASON, *Chairman*

The purpose of this section is to affect favorably the cost of hospitalization, and through it the costs of medical care by study and suggestions looking toward financial saving by the hospitals.

This section, only recently appointed, has devoted itself to a survey of the field in an effort to determine its specific activities.

SECTION ON INFORMATION SERVICE TO INSURANCE COMPANIES

JAMES H. MENDEL, *Chairman*

This section devoted the first half of the year to a study of the question of the responsibility for the pay-

ment of fees for information regarding patients, furnished at the request of insurance companies. There is no question that the issuance of this information bulletin has resulted in the recapture of a considerable amount of legitimate income by our members.

The latter half of the year has been devoted to an investigation of numerous plans for hospitalization insurance. This study is incomplete, but at the present writing it can be definitely stated that no plans thus far investigated have met the requirements of the committee, because (a) none provides for the maintenance of an adequate standard of medical practice; (b) none provides for adequate remuneration of the physician for his services; (c) none have been found to be based upon sound actuarial findings as to the cost of this form of insurance.

REPORT OF THE SECTION ON HOSPITAL STAFF COÖPERATION

EDWARD B. MILLER, *Chairman*

This recently appointed section has taken over the work of securing the appointment of local hospital economics committees.

SECTION ON INVESTIGATION OF CURRICULA OF MEDICAL SCHOOLS

JOSEPH W. POST, *Chairman*

This recently appointed committee was formed because of evidence presented to the Commission which indicates that there appears to be room for improvement in (a) the teaching of prescription writing, and the use of U. S. P. and N. F. preparations in the medical schools; (b) the teaching of medical economics and of business methods; and (c) the significance and application of the periodic health examination to the undergraduate body.

REPORT OF SECTION ON HEALTH DEPARTMENT COÖPERATION

HAROLD E. ROBERTSON, *Chairman*

The principal activities of this committee for the year 1933-34 were the following:

1. In January, 1934, a questionnaire was addressed to the membership seeking their support of a coöperative zoning plan to contact all physicians willing to carry out a diphtheria immunization campaign during April and May.

2. The education of the public in an attempt to inform them of their family physician's active interest in diphtheria immunization.

3. A resolution was prepared which would make diphtheria immunization of every preschool child obligatory and under the control of the State Department of Health. This resolution was forwarded to the State Medical Society with a request for its approval.

4. The committee also recommended that the reportable minor contagious diseases be not placarded, it being the thought that such a plan would reduce the practice of home treatment of these cases by parents, who, if the placarding were discontinued, would be more likely to seek the services of a physician and thereby secure competent treatment and also aid in controlling epidemics.

Accomplishments

The response to the educational campaign directed toward the doctors was encouraging, but the response from the public was very feeble. Thus, while 800 physicians responded to the call, very few patients sought

immunization during April and May. The reason for this appears to be obvious. Free service offered and rendered by the health department irrespective of ability to pay for the services of a private physician results in unsurmountable competition for the doctor.

The plenary powers of the health department make it impossible for the private physician to meet this competition, and not until the Department of Health accepts our request to include mention of the family doctor as competent to give this service in their diphtheria prevention campaign will the family doctor receive those who rightfully belong to his office.

As long as the Department of Health continues its present practice, patients will continue to go where they know they can receive free care with no questions asked.

The Department of Health had been repeatedly asked to coöperate more thoroughly with our Society in the interests of the family doctor, but so far little has been accomplished. This is well shown in the nature of the advertisements prepared by the Department of Health on the subject of diphtheria immunization now appearing in the daily press.

SECTION ON CONTRACT PRACTICE

GORDON J. SAXON, *Chairman*

This committee has investigated various contract plans as related to industry, and to municipal, state, and federal government. The various plans encountered might be said to have been evolved to meet existing needs, and in no instance of the relatively small number studied can it be said that gross infringement or glaring faults have been found.

In a single household it might be possible to find corporation "A" supervising plans for treatment and managing the details of compensation, *etc.*, for the father of a family who has been ill, or injured; this of itself might be well were it not for the fact that *at the same time* corporation "B" is ministering similarly to the medical needs of the eldest son, and likewise corporation "C" to those of the eldest daughter. Three children of school age are receiving the medical services provided and paid for by the municipality; the result not of government but of over-earnest medical endeavor. An uncle who has a room in the house is being treated by another municipal health agency, since he is in the employ of the city. The mother of the family calls in the family physician who, because of his presence, often finds it necessary to treat various members of this entire household. This is an example of reduplication and leads to waste and confusion.

SECTION ON COSTS OF NURSING CARE

WM. H. TELLER, *Chairman*

This section has been engaged in studying the effect of the proposed 8-hour day for nurses on the cost of medical care, and is also investigating the character of the present training of the undergraduate nurse.

SECTION ON PUBLIC RELATIONS AND EDUCATION

GEORGE C. YEAGER, *Chairman*

This section has endeavored to support actively the work of the major committee through the preparation and publication of important information and advice in the *Weekly Roster* as well as through releases on the subject of medical economics to the lay press.

Copy setting forth the work of The Philadelphia County Medical Society in the field of medical economics was forwarded from time to time to the PENNSYLVANIA MEDICAL JOURNAL for publication.

Additional Data on Medical Economics

Dauphin County page 372

For additional data on medical economics, see *The Journal of the American Medical Association*, Jan. 26, 1935:

Page 318, editorial, "Progress of Plans for Economic Security." In this editorial, among other things, the A. M. A. renews its demands that the Government place all its medical services under the control of a single medical bureau instead of scattering them throughout the various departments.

Page 320, editorial, "Diet and Relief."

Page 322, "Medical Economics," which refers to recent British health insurance costs.

MEDICOLEGAL

Malpractice: Judgment in Suit for Fee as Bar to Subsequent Action for Malpractice.—The defendant-physician obtained in a justice's court a judgment against the plaintiffs for the reasonable value of the services rendered by him in treating their child. In contesting the payment of this fee, the plaintiffs contended that the services rendered were valueless, in that the physician did not exercise the degree of care, skill, and intelligence required of physicians and surgeons in the locality. Subsequently, the plaintiffs instituted the present suit against the defendant-physician to recover damages for alleged malpractice in treating the child. The trial court gave judgment for the defendant, holding that since the question of negligent treatment had been adjudicated in the suit instituted in the justice's court and had been determined in favor of the physician, the judgment of the justice's court constituted a bar to the instant suit for damages based on alleged negligence. The plaintiffs appealed to the district court of appeal, second district, division 2, California.

The plaintiffs contended that since a justice's court was not a court of record, it was impossible to tell what matters were actually litigated and that the judgment rendered in the justice's court did not show on its face that the question of negligent or careless treatment was litigated. But, said the district court of appeal, a reporter's transcript and the pleadings and instructions to the jury did show that this question was presented to the court and jury, and even though it had not been specifically set up as a defense, the question was necessarily involved. "A physician or surgeon taking charge of a case," continued the court, "'implicitly represents that he possesses, and the law places upon him the duty of possessing, that reasonable degree of learning and skill that is ordinarily possessed by physicians and surgeons in the locality where he practices.'" (*Hesler v. California Hospital Co.*, 178 Cal. 764, 766, 174 P. 654, 655.) If he does not possess such learning and skill, or if, possessing it, he fails to use it, he is guilty of malpractice; and in every action to recover for services rendered by a physician or surgeon in which either the lack of skill and learning are necessarily involved, it needs no argument to demonstrate that a physician or surgeon who does not show at the trial that he possesses such skill by proving that he is licensed to practice his profession, and at least by presumption that he used the same in performing the services rendered, would not be entitled to recover. In other words, in our opinion, such questions are actually and necessarily included in an adjudication of his right to recover even in a default case, and particularly so where, as here, an answer is

filed which expressly raised an issue thereon, which was presented for decision as here shown." The district court of appeal, therefore, agreed with the trial court that the adjudication on the question of negligent or careless treatment by the justice's court was conclusive on that question, and barred the plaintiffs from prosecuting the present action.—*Olney v. Cavell (Calif.)*, 32 P. (2d) 181.—*J. A. M. A.*, Jan. 19, 1935.

HOSPITAL ACTIVITIES

State's Hospitals Gave 60 Per Cent Free Care in 1933.—In 124 Pennsylvania hospitals, 60 per cent of the 5,468,048 days of care given to patients in 1933 was free, according to a study recently made public by the Hospital Association of Pennsylvania. The bed capacity of the hospitals was 25,747 and the average cost per day of the 3,284,096 free days was \$3.75. The association estimated that if the same ratio of free to paid service existed in the remaining 297 hospitals and sanatoriums in the state, excluding public hospitals, the total cost of free care would have been about \$28,000,000. Outpatient or dispensary service maintained by 202 hospitals cost an additional \$3,187,464. These estimates do not include overhead charges or any evaluation of physicians' services.

Hospital Tax Exemption Including Leased Property.—The Rhode Island Supreme Court, *Woonsocket Hospital v. Quinn*, 173 Atl. 550, holds that the charter of a charitable hospital corporation exempting its property from taxation so long as it is used for the purposes of the corporation exempts all its realty, including that owned and held by or for the use of the corporation, whether or not it is actually occupied by the corporation, so that the exemption extended to leased property.—*Medical Record*, Dec. 5, 1934.

The Merging of Hospitals.—The present over-hospitalization in Philadelphia must be a matter of grave concern to this Society. If you see the picture as I have come to see it, you are faced with an opportunity for leadership in a movement by which thousands of dollars can be saved in your hospital costs, a movement which should enlist the enthusiastic support of the lay groups who have the city's welfare at heart. In the past 3 years I have been retained to make management audits of several of your hospitals. Frankly, I have been appalled by the situation presented and more so by the failure to do anything about it. In the 70 odd hospitals of the district, many of them uneconomical plants of less than 100 bed capacity, are 13,500 acute beds, with an average of only 8000 acute patients occupying them; an average of 900 chronic and convalescent cases kept in acute beds; between 4000 and 5000 acute beds empty day in and day out—at least 3000 beds which the city does not need, has not used, and likely will not use for acute patients in any reasonable future! There were probably more vacant beds in 1934 than there were in 1929. Dr. Emerson made many constructive suggestions. He initiated a number of mergers and urged more. He suggested that some of the larger, well organized, and well equipped institutions be established as base hospitals, the work of the smaller hospitals in the neighborhood transferred to them and the organizations combined.

Three thousand superfluous beds—and what do they cost? On the average the cost for each bed, whether empty or occupied, to the city of Philadelphia, approximated \$1000.

By mergers hospitals with a total of 1500 acute beds could be eliminated from the city-wide competition for patients. This influx of patients filling up its empty beds would bring no increase to its overhead; the extra expense being only the direct cost of raw food, laundry, drugs and supplies, nursing, *etc.*, for which the total for each patient day at current prices would be about \$2. Thus instead of paying \$5 or more each for 330,000 days' care in a number of small hospitals, Philadelphia would take as good if not better care of its people in base hospitals at a saving of at least \$3 a day each.

There are a number of hospitals in Philadelphia with good buildings and generous grounds which might well consider new forms of service to the community and fill their beds with chronic cases instead of keeping them but half full of acute cases. The 200,000 chronic and convalescent days' care now being had in acute hospital beds at \$4.50 a day and upward could be equally well handled in special institutions at from \$1.50 to \$2.—Charles F. Neergaard, New York City, in *Weekly Roster and Medical Digest*.

PHYSICAL THERAPY

The Work of the Council on Physical Therapy of the A. M. A.

Few physicians realize the many and varied activities of the Council on Physical Therapy. Few understand how much work it has accomplished. An article by Mr. H. A. Carter, secretary of the Council, appearing in the November-December, 1934, issue of the *Physiotherapy Review*, ably summarizes these activities. We quote from his article for our readers' information.

"As to its activities, the Council has prepared and adopted official rules and requirements for submission of apparatus, and minimum standards for acceptance of apparatus, *e. g.*: (1) Regulations to govern the advertising of ultraviolet generators to the public and to the medical profession; (2) acceptance of sun lamps; (3) diathermy—a statement preliminary to the acceptance of diathermy apparatus.

"With the coöperation of the American Standards Association, the Council has developed a list of definitions and nomenclature. This is the first complete list of physical therapy nomenclature in which the definitions of the terms correspond with the same terms used by physicists, engineers, and other scientists.

"It has made extensive study and investigation of ultraviolet, visible, and infra-red radiation, and corrected many of the abuses of radiation therapy due to the lack of familiarity in the profession concerning this form of treatment by (1) investigating a great many types of ultraviolet lamps and developing the emission standards for certain groupings of lamps; (2) developing and adopting ultraviolet radiation dosage units in general use in the United States; (3) developing and adopting standards for the control of ultraviolet radiation advertising to the profession and to the public; (4) conducting investigations into roentgen-ray and radium products and therapeutic practices.

"The Council has coöperated with the American Standards Association, working with the American Society of Ventilating Engineers in the investigation of air conditioning and health claims in connection therewith.

"It has coöperated with the Council on Medical Education and Hospitals of the American Medical Association, the American Orthopedic Association, the American Congress of Physical Therapy, the American

Physiotherapy Association, and the American Occupational Therapy Association in developing standards for the education of technicians. This work is progressing most satisfactorily.

"It also has secured the services of leading physicists, physiologists, clinicians, and others who have served as consultants and as investigators of apparatus.

"The Council has published 62 articles which have dealt chiefly with those physical therapy procedures most applicable to the work of the general physician, which have refuted many false therapeutic claims for certain physical therapy apparatus, and which have otherwise endeavored to place physical therapy on a sound basis. Most of the articles have been included in the *Handbook of Physical Therapy*, edited by the Council and published by the American Medical Association.

"The Council has formally considered 290 pieces of apparatus. Of these 130 have been accepted, 17 rejected, and the remaining 143 are still under consideration. Of these latter, a large portion have been investigated and rejected, but at the request of the manufacturers the publication of these reports has been postponed while the firms are gathering better evidence. The Council has withdrawn acceptance of one product and has refused to consider about 100 mechanical nostrums.

"As to the advertising of therapeutic products and methods, the Council has assisted in raising the tone of the advertising matter and has been instrumental in the improvement of merchandising methods by reading, revising, and in many cases completely eliminating approximately 5000 separate pieces of advertising material, and by securing the coöperation of the better manufacturers. In this connection, hundreds of letters have been received from physicians showing their favorable reaction to improved advertising and merchandising methods.

"The Council has discouraged 'clinics' which were conducted by manufacturers for the demonstration of their apparatus, and has eliminated almost completely the giving of lectures throughout the country by physicians of questionable repute, employed by manufacturers.

"The Council has devoted much time to the education of the medical profession in physical therapy by preparing standards for undergraduate and postgraduate education in physical therapy, by supplying speakers to state or county medical societies, by the Council members presenting papers before many representative medical associations in the United States, and by formulating a method for extending postgraduate education. It has arranged for exhibits in physical therapy in conjunction with the Committee on Scientific Exhibit at the annual sessions of the American Medical Association, and also at meetings of state medical societies and special medical associations.

"The framers of the original resolution were farsighted when in determining the scope of the Council's activities, they stated the following: ' . . . whose duty it shall be principally to investigate and report on the value and merits of all nonmedicinal apparatus and contrivances offered for sale to physicians and hospitals and to publish in *The Journal of the American Medical Association* from time to time the results of its investigations.'

"The Council is now enlarging its activities by investigating the 'nonmedicinal apparatus and contrivances.' Lenses and ophthalmologic devices are being investigated and reported on, and the Committee on Standardization of Instruments and Drugs of the Section on

Ophthalmology of the American Medical Association is coöperating in this important work. Surgical supports, belts, pads, shoes, *etc.*, are coming up for investigation and report.

"From the above summary of past work of the Council, it can be authoritatively stated that physical therapy is now in much better repute with the entire profession than it was at the time the Council was organized. At that time, justifiable skepticism was warranted by the misuse of physical therapy. Today patients are receiving more and more of that type of physical therapy which is of real value to them."

Diathermy in Fractures.—There are competent physicians who feel that diathermy is of real benefit in the treatment of fractures. Investigation has not established that diathermy hastens union or earlier callus formation or increased callus formation. In cases of delayed union, diathermy has been used without appreciable benefit. The administration of heat by diathermy in certain cases of painful, badly swollen fractures has been found of benefit in relieving pain and probably in hastening the relief of the swelling. Owing to the impaired circulation, great caution is necessary to prevent burning. Diathermy seems to be of little value in fractures, except for the relief of the symptoms.—*J. A. M. A., Queries and Minor Notes.*

High Frequency Currents and Blood Pressure.—Von Fischer says that the influence of high frequency currents is considered by some as merely suggestive, while others consider them highly efficacious. When they were introduced by d'Arsonval (1897), it was pointed out that they influenced the vasomotor system and reduced the blood pressure. The author studied the influence of high tension high frequency currents on the blood pressure of 33 persons, by means of an apparatus with a tension of 220,000 volts and a frequency of from 800,000 to 1,000,000. In summarizing, he states that a single irradiation generally reduced the maximal pressure and had only a slight effect on the minimal pressure. The reduction of the maximal pressure was absolutely and relatively higher, the higher the initial pressure had been. In case of repeated applications, the results were similar to those of the first one. Regular repetitions of the treatment produced a lasting effect, which as a rule became manifest in a stabilization of the maximal pressure at a lower level. In case of abnormally low initial pressure, an increase may be effected in the maximal pressure.—*J. A. M. A.*

INDUSTRIAL MEDICINE

Persons with Good Noses Selected to Work in Dust.—Miners should have good noses. So should stone cutters, grinders, sand blast men, and others who work in an atmosphere laden with rock dust or other abrasive particles, if they would keep their health and avoid lung troubles. For an important function of the nose is to filter out these particles and prevent them from entering the lungs. And noses differ greatly in the efficiency with which they perform this function.

Dr. Gunther Lehmann of the Kaiser-Wilhelm Institute for Workman's Physiology examined 426 noses. They belonged to miners. Of the 426 miners, 241 were ill with lung troubles, 185 were well.

The noses were tested by blowing into them air laden with a fixed amount of dust, and allowing the air to issue from the mouth while the breath was held. The dust content of this air was then measured and the

percentage of the original content filtered out by the nose was thus determined. The healthy miners were found prevailing among the high percentages, the affected miners among the low percentages.

Dr. Lehmann recommends that no man be admitted to a dusty job unless he passes such a nose test. Had this been done, he states, with the miners he examined, 205 out of the 241 that fell ill would have been saved from their illness. Under no circumstances, he insists, should mouth breathers be accepted for such jobs.—*Science News Letter.*

PUBLIC HEALTH

Ask Water Tests.—An unusual number of requests for the examination of private water supplies in the rural sections of the Commonwealth were received by the Pennsylvania Department of Health during the fall and winter months, according to Henry P. Drake, supervising engineer in charge of this work.

"Field engineers of the department," said Drake, "are making every effort to meet the demand for this type of service even during the winter season, which has been unusually marked for this time of the year."

It would, therefore, seem that those living in the rural sections are becoming more generally and thoroughly convinced of the value of having water supplies on their premises examined and approved. Conditions which lead to typhoid fever germs in such supplies are thus exterminated. It is reasonable to hope that this preventive measure will in a few years become general throughout the sections lacking centralized and controlled water supplies. When this happy event occurs rural typhoid should become history.—*Penna. Health.*

Drive on Narcotic Forgery.—The division of narcotic control is now engaged in an intensive drive against the fraudulent prescription racket, according to Harold V. Smith, division chief. The illicit distribution of narcotics by the underworld has been so reduced in Pennsylvania through the coöperative efforts of federal agents and departmental investigators that hundreds of unlisted addicts have recently been forging prescriptions to obtain their supplies.

Because of the desperate type of person frequently involved in such transactions, many pharmacists and physicians have been loath to present evidence on these activities, fearing violence. Investigations now being made have resulted in the arrest and conviction of a number of violators. Activities now being conducted indicate that this racket will be broken up definitely not only in the metropolitan centers but in the smaller cities as well.

Drug addicts are to be pitied. To be thus afflicted is an unspeakable misfortune. Many have become addicts innocently by taking powders from friends or diabolically minded traffickers.

Children especially should be warned against the many advances attempted by such inhuman agents of the underworld. Fortunately there is not a large number at present working in Pennsylvania, thanks to official vigilance. Nevertheless, the present activity justifies the above warning.—*Penna. Health*, Nov.-Dec., 1934.

Tetanus Cure Distribution.—The distribution of tetanus antitoxin has been resumed by the Pennsylvania Department of Health, recently reported Roy G. Miller, chief of the division of supplies. This preventive has been forwarded to hospitals and distributing stations in

sufficient quantities to immunize 3780 individuals, the total cost involved being \$3400.

"This service is an emergency one," Miller said, "and is extended to all classes of persons in need of preventive treatment. The increased number of automobile accidents which in their nature create wounds into which dirt is likely to be scraped has definitely increased the demands for this product.

"Puncture wounds, cuts, or sores into which earth finds its way, as well as injuries from powder burns and firearms generally, usually require the administration of anti-lockjaw treatment and therefore has become more or less routine.

"The general application of this emergency measure has apparently reduced actual cases of lockjaw to a minimum in spite of additional possibilities directly due to automobile accidents."—*Penna. Health.*

Morbidity in Pennsylvania in November, 1934

Locality	Disease				
	Diphtheria	Measles	Scarlet Fever	Typhoid Fever	Whooping Cough
Aliquippa	1	4	50	0	0
Allentown	2	2	4	0	30
Altoona	0	2	9	1	10
Ambridge	0	0	0	0	0
Arnold	0	0	7	0	2
Beaver Falls	0	0	8	0	9
Bellevue	0	1	2	0	0
Berwick	0	0	29	1	0
Bethlehem	0	0	0	0	0
Braddock	4	1	1	0	8
Bradford	0	12	2	0	0
Bristol	0	0	0	0	5
Butler	0	112	2	1	1
Canonsburg	0	0	2	0	1
Carbondale	0	0	0	0	0
Carlisle	0	0	0	0	1
Carnegie	3	0	1	0	4
Chambersburg	2	0	10	0	0
Charleroi	0	29	0	0	7
Chester	0	0	4	0	15
Clairton	0	0	1	0	0
Coatesville	1	0	0	0	0
Columbia	1	0	0	0	0
Connellsville	0	0	1	0	0
Conshohocken	0	0	1	0	2
Coraopolis	0	0	13	0	0
Dickson City	0	0	0	0	0
Donora	0	0	8	0	1
Dormont	0	0	1	0	0
Du Bois	0	0	3	0	0
Dunmore	1	0	0	0	0
Duquesne	0	0	4	0	3
Easton	1	0	12	0	1
Ellwood City	0	0	1	1	2
Erie	3	1	7	0	6
Farrell	0	1	1	0	1
Franklin	0	0	10	0	1
Greensburg	0	0	0	0	0
Hanover	0	0	9	0	0
Harrisburg	0	39	0	0	35
Hazleton	1	0	6	0	4
Homestead	0	0	5	0	1
Jeannette	1	0	1	0	0
Johnstown	3	1	8	0	5
Kingston	0	0	0	0	2

Locality	Disease				
	Diphtheria	Measles	Scarlet Fever	Typhoid Fever	Whooping Cough
Lancaster	0	1	23	1	0
Latrobe	0	1	3	0	2
Lebanon	0	0	0	0	0
Lewistown	1	0	3	0	0
McKees Rocks	1	0	2	0	0
McKeesport	3	0	7	0	5
Mahanoy City	0	0	5	0	1
Meadville	0	0	0	0	0
Monessen	1	0	4	0	1
Mount Carmel	0	0	0	1	0
Munhall	0	0	3	0	4
Nanticoke	0	6	5	0	0
New Castle	0	1	18	0	0
New Kensington	4	3	1	0	0
Norristown	0	0	0	0	5
North Braddock	0	0	2	0	1
Oil City	0	1	4	0	19
Old Forge	0	0	0	0	0
Olyphant	0	0	0	0	0
Philadelphia	20	11	188	8	294
Phoenixville	0	1	1	0	0
Pittsburgh	28	95	181	4	38
Pittston	1	0	1	0	0
Plymouth	0	0	0	1	0
Pottstown	0	0	23	0	0
Pottsville	3	0	0	0	0
Reading	7	5	19	0	32
Seranton	0	20	10	0	19
Shamokin	0	0	0	0	0
Sharon	0	0	3	1	0
Shenandoah	0	0	3	0	0
Steelton	0	0	0	0	0
Sunbury	0	1	1	0	0
Swissvale	0	0	4	2	0
Tamaqua	0	0	4	0	1
Taylor	1	0	0	0	0
Turtle Creek	0	0	4	0	2
Uniontown	0	61	1	0	0
Vandergrift	1	0	13	0	2
Warren	0	0	0	0	3
Washington	0	1	11	1	2
Waynesboro	0	0	1	0	0
West Chester	0	0	0	0	0
Wilkes-Barre	6	2	7	1	8
Williamsport	0	3	4	0	4
York	0	0	2	1	0

Townships					
Allegheny County:					
Harrison	0	0	0	0	0
Mt. Lebanon	0	0	0	0	0
Stowe	0	0	0	0	0
Delaware County:					
Haverford	0	0	2	0	3
Upper Darby	0	1	3	0	6
Luzerne County:					
Hanover	2	0	1	0	3
Plains	0	0	2	0	0
Montgomery County:					
Abington	0	1	0	0	0
Cheltenham	0	0	4	0	0
Lower Merion	1	3	4	0	4

Total Urban ..	104	427	803	27	619
Total Rural ..	107	1958	844	61	632
Total State ..	211	2385	1647	88	1251

TUBERCULOSIS ABSTRACTS

A Review for Physicians

PREPARED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Published through the coöperation of the Pennsylvania Tuberculosis Society and The Medical Society of the State of Pennsylvania

THERE is no substitute for the family physician. He is usually the first to see the patient with tuberculosis and he determines what special service may be necessary. Though the specialist may assume responsibility during the active treatment period of this chronic disease the family physician carries the burden of caring for the patient during his entire life. The two brief abstracts that follow deal with problems of tuberculosis in general practice.

Problems of Pulmonary Tuberculosis in General Practice

The Commission on Medical Education, in studying the diagnoses reported by a group of general practitioners, finds that the diagnosis of tuberculosis is an uncommon one. Yet in 1931, 80,562 new patients were admitted to the 509 special tuberculosis hospitals in the United States. The reason for this discrepancy between the frequency of tuberculosis in the community and the rarity of its recognition by the general practitioner is not difficult to explain.

Anti-tuberculosis propaganda and the development of specialists in tuberculosis have produced an apathy on the part of many doctors toward this disease. The family doctor thinks that he no longer sees the cases as he used to. Now they are likely to be recognized and segregated by school physicians, industrial physicians, life insurance examiners, or by some special agency designed to combat the spread of the disease.

Most cases are treated while the disease is active by specialists in special hospitals. The result is that the general practitioner has lost interest in this subject. He has grown careless in the art of history-taking and physical diagnosis, and has washed his hands of the treatment of tuberculosis. This is an unfortunate state of affairs, for the general practitioner, in spite of the trend of the times, should be as keenly alive to the clinical problems of tuberculosis as ever. If he is a good doctor, his patients and their families will always eventually return to him for advice, no matter through what special hands they may pass on the way,

and he remains their court of last appeal. If he is to give sound advice in regard to tuberculosis he must be familiar with it.

The author then describes several illustrative cases. One was that of a young woman with a clearly defined chronic tuberculosis beginning insidiously and becoming well advanced before it was recognized. While still in the sanatorium she married and soon after was discharged as well. A baby was born. Nine years after her first visit to the clinic, when the baby was 5 years old, he developed tuberculosis and his mother began to have a slight afternoon temperature.

An alert family physician might well have been the one to advise her in regard to such matters as marriage and pregnancy, to follow up her case, to keep her under supervision and to outline the proper plan of life for her. As it was, the tuberculosis specialist gave her admirable hospital care, yet after she left the sanatorium, neither he nor any one else was concerned with her method of living, and the end-result was a preventable medical calamity. There are too many cases of this description in all our hospitals.

The author has been struck by the number of people with tuberculosis who have come to the Peter Bent Brigham Hospital, and who have been transferred later to tuberculosis hospitals in various parts of the country, whose relations have kept returning to the house officers or staff for subsequent advice involving such questions

as the following: Should the sanatorium doctor be allowed to inject air into the patient's chest or to do a more radical operation? Is hemoptysis an ominous sign? How long shall the patient stay in bed, and is the sanatorium doctor right in allowing the patient to get up so soon? Is it proper for the sanatorium doctor to have the patient's tonsils removed? Does the sanatorium doctor know what he is doing? Questions of this sort indicate that the family doctor should and can be a very helpful *liaison* officer.

Tuberculosis often shows up unexpectedly in

young people supposed to be perfectly healthy and with symptoms simulating an acute respiratory infection or as a sudden hemoptysis. Cases of this type are always at first seen by the family doctor.

Pulmonary tuberculosis is still so common a disease as to be ever-present, and general practitioners are seeing it frequently, perhaps failing to recognize its significance.

Problems of Pulmonary Tuberculosis in General Practice, Reginald Fitz, M.D., *Annals of Internal Medicine*, Aug., 1933.

Problems of the General Practitioner in Tuberculosis

Both the diagnosis and the treatment of tuberculosis are fraught with obstacles and pitfalls for the rural physician. Diagnostic difficulties may be divided into the problems presented by the atypical individual case, and those concerned with epidemiology. Questions of correct therapeutics for rural patients also must be given attention if the disease is to be controlled adequately.

The tuberculin test is of great help. Each patient reacting positively is subjected to roentgenographic study. All roentgen-ray plates are interpreted by either a roentgenologist or a tuberculosis specialist. These 2 phases of the diagnostic scheme have furnished a solution for the problems presented by the individual atypical cases.

Even cases which do present symptoms or findings typical of pulmonary tuberculosis may be demonstrated to be of a tuberculous nature. All atypical cases of either adult or childhood pneumonia, all cases of sudden or unexplained elevation of temperature, of recurrent hoarseness, atypical hyperthyroidism, and doubtful pleurisy are subjected to a tuberculin test. That such a procedure is justified is attested by the demonstration of tuberculosis in 2 cases of atypical childhood pneumonia, in 2 cases with recurrent hoarseness, 1 peculiar case of suspected hyperthyroidism, 3 cases of pleurisy, and 1 patient whose only complaints were tiredness and loss of weight. Now, through the use of these tests many cases with vague, indefinite symptoms and few or no physical signs either become tuberculosis suspects or are pronounced nontuberculous. More general use of the tuberculin tests by general and rural practitioners is strongly urged.

Often the patient is reluctant to incur the expense of the Mantoux test and roentgen-ray

study, and when the doctor mentions the additional fee for interpretation, the patient often refuses to let the film be taken and also assumes that the local physician is culpably ignorant. This problem could be solved by the designation of some individual or institution where accurate interpretation of thoracic films of tuberculosis suspects could be obtained without cost to the patient or practitioner. Since this would overcome one of the principal obstacles in correct diagnosis of tuberculosis in rural patients, the expense would be justified eventually by the advancement of the anti-tuberculosis campaign which it would aid. The results of treatment in the home are not encouraging. But this is due to the failure of the patient to follow advice strictly as prescribed. Minor variations in one phase or another could possibly be well borne, but each deviation leads to other concessions until the ultimate home treatment amounts to no treatment at all.

The routine practice should consist of a careful history and physical examination, daily temperature record with readings taken at intervals of 4 hours over a period of 10 to 14 days, repeated sputum examinations, basal metabolic studies if necessary, tuberculin tests, and roentgenographs. Tuberculin tests and roentgen-ray plates will be much more generally used if more intensively and extensively advocated and if some provision can be made for accurate interpretation of the films without additional expense to the patient or the rural physician. Best results will be obtained both in control of spread of the disease and in reduction of morbidity and mortality if tuberculous patients in rural districts are provided care in sanatoria.

Problems of the General Practitioner in Tuberculosis, Edwin J. Simons and John B. Simons, *Am. Rev. of Tuberc.*, Nov., 1934.



THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA

OFFICERS' DEPARTMENT

WALTER F. DONALDSON, M.D., *Secretary*, 8104 Jenkins Arcade, Pittsburgh, Pa.

WARD PATIENTS

The following paragraph is taken from the presidential address of Dr. Moses Behrend:

Nothing in our State law prevents a physician from charging a fee to ward patients. In Philadelphia and a few of the larger cities in this State, hospital boards of directors do not permit the physician to charge ward patients, even though the latter may be paying full or partial ward rates. This is a custom as obsolete as the Blue Laws of 1794. The patient able to pay the hospital should be able to pay the attending physician a small fee and in most cases would be glad to do so. About 80 per cent of the patients in hospital wards firmly believe that the physician is paid for his services to them by the hospital. The indigent, of course, would continue to receive gratuitous care as they always have. Here is a channel into which social service might well extend its efforts.

As a follow-up to the above paragraph a questionnaire was sent by the State Society to 230 "approved" hospitals in this state to determine how many permitted their visiting staff physicians to charge for their services rendered to ward patients having paid the full hospital rates. Of this number, 139 replied in the affirmative, while 15 of the hospitals, all in Philadelphia and the surrounding area, stated that staff physicians are not permitted to collect fees from any ward patients.

As a result, a meeting was held between a committee from the Philadelphia Hospital Association and a committee from the Commission on Medical Economics of the Philadelphia County Medical Society. The President of the State Society was invited to discuss the findings of the questionnaire. It was decided that the committee of the Hospital Association present the matter to the Board of Directors of their association.

On January 15, at a meeting of the Board of Directors of the Philadelphia Hospital Associa-

tion, an amendment was passed authorizing all hospitals in the Philadelphia district to permit the medical staff, after consultation with the superintendent of the hospital, to render a charge for their services to paid-in-full ward patients.

FROM A STIRRING MESSAGE

In President Roosevelt's message of Jan. 17, transmitting to the 74th Congress of the United States recommendations for legislation under the general heading of Economic Security, appeared a thousand words on health insurance. The publication of this message, with its definite reference to a definite plan prepared, coincided with a wise call to action by the Board of Trustees of the American Medical Association. After stating that "nearly every large industrial country of the world except the United States has applied the principle of insurance to the economic risks of illness," the President stated that his Committee's "staff has prepared a tentative plan of insurance believed to be adequate." He continued as follows:

. . . From the very outset, however, our committee and its staff have recognized that the successful operation of any such plan will depend in large measure upon the provision of sound relations between the insured population and the professional practitioners or institutions furnishing medical services under the insurance plan. We have accordingly submitted this tentative plan to our several professional advisory groups organized for this purpose. These advisory groups have requested an extension of time for the further consideration of these tentative proposals, and such an extension has been granted until March 1, 1935. In addition, arrangements have been effected for close coöperative study between the committee's technical staff and the technical experts of the American Medical Association.

Until the results of these further studies are available, we cannot present a specific plan of health insurance. It seems desirable, however, to advise the professions

concerned and the general public of the main lines along which the studies are proceeding. These may be indicated by the following broad principles and general observations which appear to be fundamental to the design of a sound plan of health insurance.

1. The fundamental goals of health insurance are: (a) The provision of adequate health and medical service to the insured population and their families; (b) the development of a system whereby people are enabled to budget the costs of wage loss and of medical care; (c) the assurance of reasonably adequate remuneration to medical practitioners and institutions; (d) the development under professional auspices of new incentives for improvement in the quality of medical service.

2. In the administration of the services the medical professions should be accorded responsibility for the control of professional personnel and procedures and for the maintenance and improvement of the quality of service; practitioners should have broad freedom to engage in insurance practice, to accept or reject patients, and to choose the procedure of remuneration for their services; insured persons should have freedom to choose their physicians and institutions; and the insurance plan shall recognize the continuance of the private practice of medicine and of the allied professions.

3. Health insurance should exclude commercial or other intermediary agents between the insured population and the professional agencies which serve them.

4. The insurance benefits must be considered in 2 broad classes: (a) Cash payments in partial replacement of wage loss due to sickness and for maternity cases; and (b) health and medical services.

5. The administration of cash payments should be designed along the same general lines as for unemployment insurance and, so far as may be practical, should be linked with the administration of unemployment benefits.

6. The administration of health and medical services should be designed on a state-wide basis, under a federal law of a permissive character. The administrative provisions should be adapted to agricultural and sparsely settled areas as well as to industrial sections, through the use of alternative procedures in raising the funds and furnishing the services.

7. The costs of cash payments to serve in partial replacement of wage loss are estimated as from 1 to 1½ per cent of pay roll.

8. The costs of health and medical services, under health insurance, for the employed population with family earnings up to \$3000 a year, is not primarily a problem of finding new funds, but of budgeting present expenditures so that each family or worker carries an average risk rather than an uncertain risk. The population to be covered is accustomed to expend, on the average, about 4½ per cent of its income for medical care.

9. Existing health and medical services provided by public funds for certain diseases or for entire populations should be correlated with the services required under the contributory plan of health insurance.

10. Health and medical services for persons without income, now mainly provided by public funds, could be absorbed into a contributory insurance system through the payment by relief or other public agencies of adjusted contributions for these classes.

11. The rôle of the federal government is conceived to be principally (a) to establish minimum standards

for health-insurance practice; and (b) to provide subsidies, grants, or other financial aids or incentives to states which undertake the development of health-insurance systems which meet the federal standards.

On Jan. 21 a special meeting of the House of Delegates of the A. M. A. was called to convene in Chicago on Feb. 15 to consider only the social and economic policies of the Association, as related to pending and proposed legislation, to sickness insurance, and to other matters which may be submitted by the Board of Trustees. The Medical Society of the State of Pennsylvania was represented by the 10 delegates to which it was entitled.

THE 1935 HONOR ROLL

The total paid membership of our State Society as of December 31, 1934, is 8042, which is an increase over any previous year in the history of the organization.

This happy state of affairs expresses in terms easily understood the determination of the officers and the membership of our various county medical societies not only to increase their membership but to stand together in unity of purpose to defend to the last the best health interests of the people of Pennsylvania.

That they are probably even more determined in the year 1935 may be evidenced by the fact that the State Society dues of 50 per cent more of its membership throughout the state were received at the Secretary's office during the month of January than in the same month last year. This must be the influence at work, because those who pay during the first quarter largely for the sake of retaining the medical defense benefit of membership have not yet become concerned, since this benefit is not forfeited for nonpayment of dues until March 31 of the current year.

The following are the county societies which on January 30, 1935, had paid 50 per cent or more of their members' dues:

Juniata	100%
Susquehanna	93%
Clarion	71%
Potter	69%
Montgomery	66%
Mifflin	63%
York	61%
Montour	59%
Carbon	58%
Dauphin	56%
Somerset	55%
Lebanon	53%
Warren	53%
Lycoming	51%
Chester	50%

MINUTES OF MEETING, COMMITTEE ON MEDICAL ECONOMICS

The Committee on Medical Economics met in the Penn-Harris Hotel, Harrisburg, on Tuesday, Dec. 11, 1934. Members present were Drs. Bortz, Brenholtz, Chairman Lukens, and Weinberg.

It was agreed that in order to study the economic situation more thoroughly, it would be advisable to enlarge the committee by the appointment of auxiliary committees or subcommittees, enumerated as follows:

- a. Participation of lay workers in the professional field.
- b. Health department coöperation.
- c. Hospital economic relations as hospital and dispensary practices, medical representation on hospital boards, hospital economics, and hospital staff coöperation.
- d. Industrial medicine and contract practice.
- e. Nursing care.

We considered a letter from Dr. Francis A. Faught of the Philadelphia County Medical Society, suggesting that the Committee on Medical Economics of the State Society submit material monthly for a separate section in the PENNSYLVANIA MEDICAL JOURNAL.

Dr. Weinberg's plan for a bill proposing health insurance was discussed. Most of the members of the committee felt that before we could recommend a plan we should know more about the need in this state. It was agreed that the plan is the best we have at the present time. It was decided that Dr. Weinberg would compare the proposed Philadelphia study now headed by Dr. Bortz, also the proposed questionnaire referred by Secretary Donaldson, with the Michigan plan with the purpose of trying to deduct information desired by the Bortz study and the aforesaid questionnaire from the Michigan State Society study, so that we in Pennsylvania would not have to incur the great expense of a similar state-wide survey. Dr. Weinberg will also review the Canadian and Scandinavian plans.

Dr. Lukens will study the Northampton County plan and report upon it at the next meeting of the Economics Committee.

The committee thought that the plan presented by Dr. Weinberg should be developed in case the medical profession is forced to offer legislative proposals. It should be with the purpose of asking that we be given until 1937 to propose satisfactory legislation.

Dr. Weinberg asserts that his plan does several things; namely, (1) acknowledges certain basic needs, (2) attempts to eliminate the third party, (3) introduces the plan of the insured paying some cash for medical service received before insurance benefits become operative, and (4) provides for the indigent.

Economic conditions change so rapidly that any state-wide survey of 1935 may prove valueless in 1937.

In as far as Pennsylvania conditions resemble those of Michigan, there is no current need to make an extensive and expensive survey.

We recognize the importance of knowledge of the difference in sickness needs of city and rural communities.

The plan presented by Dr. Weinberg applies especially to industrial centers.

PHILIP J. LUKENS, *Chairman.*

Dr. Philip J. Lukens, of Ambler, who accepted the chairmanship of this committee on April 7, 1934, resigned from the committee on Dec. 26. Dr. Francis F.

Borzell, of Philadelphia, immediately accepted the appointment of chairman of the committee made by President Moses Behrend. Dr. Borzell brings to this new responsibility, which he accepts in addition to his many other duties and responsibilities, a wealth of experience gained from his endeavors in his own county society. He continues as a member of the State Society Committee on Public Relations.

THE GRADING OF PRENATAL CARE

TO EVERY REGISTERED PHYSICIAN IN PENNSYLVANIA:

Intelligent, understanding, well-ordered prenatal care of any woman throughout her pregnancy—her first or her tenth—is the best safeguard against disaster. In casting one's eye over the causes of maternal deaths in these United States, one perceives at once the unnecessary loss of life, considered either preventable or at least controllable (two-thirds).

Prenatal care may be given and received only through a willingness on the part of the patient to coöperate by reporting to her physician early and being informed intelligently on diet, rest, sleep, exercise, bathing, sexual relations: in fact, receiving from a physician definite advice in the hygiene of pregnancy.

The expectant mother is being taught to seek wise, thorough, efficient medical care, with the broad assertion that if she does, all will be well. This, fellow practitioners, is a large order. If it is to be filled and delivered properly, the physician must be well trained, interrogative, thorough, with a zealous determination to fill the order and not merely to act as a booking agent.

The first prerequisite is an early reporting for prenatal care. If the patient does not put in an appearance until the last month of her pregnancy, the blame falls on the patient, since then, in the considerable percentage with complications, the damage has already been done. We as physicians have to work with clinical material as presented.

The care given a pregnant woman may be classified as *poor*, *indifferent*, *good*, and *adequate*.

Poor care: A single visit to the physician, a single blood pressure reading, and no more than one urinalysis is a poor grade of care. Poor care would also be indicated if the patient had reported early and there was no instruction or urge for subsequent periodic visits or examinations.

Indifferent care: An improvement over the poor grade, suggests that the patient did not consult a physician before the seventh month, and then had not had more than 2 urinalyses and blood pressure readings and 1 physical examination of heart, lungs, and abdomen.

Good care: Conveys the idea of regular, monthly visits to the physician, beginning with or before the fifth month; with a general physical examination of heart, lungs, abdomen, and with examination of urine and blood pressure and recording of weight at each visit; also, except in multiparæ with history of normal deliveries, pelvic measurements (external and internal) at the first visit.

Adequate care: Consists in consulting a physician at least once each month during the first 6 months, then oftener if indicated, the first visit being not later than the end of the second month; blood Wassermann, blood count, and hemoglobin estimation; minute instructions in hygiene of pregnancy; pelvic measurements (internal and external); a careful history (medical, surgical, gynecologic, and obstetric).

At each monthly visit the patient's general condition should also be ascertained as to blood pressure, urinalysis, pulse, temperature, and weight; abdominal examination and general survey of her physical well-being.

Let each physician check his habitual type of care with his own conscience—

Do I render poor, indifferent, good or adequate prenatal care?

Grade yourself, before your patients do it for you.

All physicians are able to give no less than good care.

Your patients expect no less, so give more.

We will address you further through the columns of the PENNSYLVANIA MEDICAL JOURNAL.

COMMISSION ON MATERNAL WELFARE,
MEDICAL SOCIETY OF THE STATE OF
PENNA.

JAMES S. TAYLOR, *Chairman*, Altoona,
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JACOB WALKER, Philadelphia,
PHILIP F. WILLIAMS, Philadelphia.

CONTRIBUTIONS TO MEDICAL
BENEVOLENCE FUND

The Committee on Medical Benevolence gratefully acknowledges the following contributions to the Fund:

Woman's Auxiliary to Butler County Medical Society	\$35.00
Woman's Auxiliary to Greene County Medical Society	10.00
Woman's Auxiliary to Lackawanna County Medical Society	
Anonymous	10.00
In memory of Mrs. C. L. Frey	5.00
Woman's Auxiliary to Lawrence County Society	1.00
Total contributions since 1934 report	\$590.00

CHANGES IN MEMBERSHIP OF
COUNTY SOCIETIES

The following changes have been reported to January 10:

ALLEGHENY: *New Members*—William C. Baczkowski, Mayview; Theodore Baker, Jr., 1117 Wood St., Wilkensburg; Thelma L. Dulaney, 1043 Fawcett St., Matthew R. Hadley, 1135 Walnut St., Herbert S. Van Kirk, 522 Walnut St., McKeesport; Richard C. Ritter, 1508 Bryant St., Bellevue; George R. Sippel, 308 E. 8th Ave., Homestead; Wayne H. Stewart, 1114 Fourth Ave., Coraopolis; Robert D. Donaldson, Magee Hospital, Kenneth I. Fetterhof, Leech Farm Sanitarium, Pittsburgh. *Resignations*—Thomas M. Barrett, Marion, Indiana; Obed Yost, Pittsburgh. *Death*—William P. McCulloch, Cheswick (Kentucky Med. Sch. '91), age 72, recently.

ARMSTRONG: *Deaths*—Samuel E. Ambrose, Rural Valley (Balt. Med. Coll. '98), Jan. 3, age 71; John T. Deemer, Kittanning (Jeff. Med. Coll. '79), Dec. 13, age 81.

BERKS: *New Members*—E. Kern Linder, 101 S. Fourth St., Hamburg; David Brooks, 320 N. 11th St.,

Ralph C. Hoyt, Reading Hospital, Robert Wheeland, 230 N. Fifth St., Reading.

BLAIR: *Death*—Byron M. Sell, Altoona (Jeff. Med. Coll. '24), Dec. 9, age 37.

BUCKS: *New Member*—Ralph J. Horwell, Yardley. *Reinstated Member*—Harvard R. Hicks, Doylestown.

BUTLER: *Reinstated Members*—Guy A. Brandenburg, 358 Center Ave., John M. Dunkle, 100 S. Main St., Butler.

CAMBERIA: *New Members*—John J. Huebner, Jr., 325 Horner St., Wilfred H. Winey, 631 Ferndale Ave., Johnstown. *Death*—Ray M. Alexander, Bolivar (Univ. Pgh. '05), Dec. 25, age 55; Clarence C. Spicher, Johnstown (Balt. Med. Coll. '03), Jan. 1, age 61.

CARBON: *Removal*—Robert A. Christman from Weissport to 832 Mahoning St., Lehighton.

CENTER: *Reinstated Member*—Ernest H. Coleman, State College.

CLARION: *Death*—John T. Rimer, Clarion (Coll. Phys. & Surg., Balt., '81), Oct. 29, age 79.

CLEARFIELD: *New Member*—Charles H. Ambrose, Osceola Mills.

DAUPHIN: *Death*—V. Hummel Fager, Harrisburg (Univ. Pa. '92), recently, age 68.

DELAWARE: *New Members*—Ruth N. Miller, 7703 West Chester Pike, Upper Darby; Charles S. Sentner, 17 Linden Ave., Rutledge; Edward G. Torrance, 678 Burmont Road, Drexel Hill. *Reinstated Members*—Palmer N. De Furia, 803 W. 8th St., William H. Goodman, 401 E. 12th St., Chester.

ELK: *Reinstated Member*—Jesse D. Johnston, Emportum.

FAYETTE: *New Member*—Howard A. Johnson, Uniontown.

FRANKLIN: *New Member*—David C. Pewterbaugh, St. Thomas. *Reinstated Member*—George B. Davis, Blue Ridge Summit. *Resignations*—Helen M. Stewart, Ella M. Russell, Chambersburg. *Death*—Theodore H. Weagley, Marion (Coll. Phys. & Surg., Balt., '82), recently, age 73.

JEFFERSON: *Death*—Harry P. Thompson, Brookville (Univ. Pgh. '90), recently, age 72.

LACKAWANNA: *New Members*—Joseph P. Burke, Connell Bldg., Frank P. Colizzo, 1001 Jackson St., Eugene B. Barrett, 416 Prospect St., Thomas Russell Evans, 2044 N. Maine Ave., James S. Jordan, 313 Prospect St., Joseph D. Moylan, 107 S. Irving Ave., David J. Jenkins, 912 S. Main Ave., Scranton; Anthony F. Antognoli, 605 Main St., Peckville; Joseph F. Hines, 106 S. Blakeley St., Dunmore; Stanley C. Mazaleski, 166 S. Main St., Old Forge; John S. Niles, Jr., 76 N. Main St., Carbondale. *Reinstated Members*—Patrick J. Heston, 835 Jefferson Ave., Robert V. White, Brooks Bldg., Edward H. Kelly, Miller Bldg., Frederick Whitney Davis, Connell Bldg., William A. Stevens, 2103 N. Washington Ave., Patrick J. Heston, 835 Jefferson Ave., Scranton.

LAWRENCE: *Reinstated Member*—Charles J. Smyser, New Wilmington.

LEHIGH: *New Member*—Claude M. Leister, 1731 W. Broad St., Bethlehem.

LUZERNE: *Reinstated Member*—John C. Fleming, Dallas.

LYCOMING: *Reinstated Member*—Barton Brown, Quarantine Sta., Gloucester, N. J. *Deaths*—John A. Campbell, Williamsport (Coll. Phys. & Surg., Balt., '01), Jan. 4, age 60; Charles L. Mohr, Jersey Shore (Coll. Phys. & Surg., Balt., '85), Dec. 19, age 71.

McKEAN: *New Members*—M. Elizabeth Cleland, Charles E. Cleland, Kane; Donald Y. Shaffer, Camp NF No. 6, Marienville. *Transfer*—Clarence A. Tinsman, Marienville, from Lawrence County Society.

MONTGOMERY: *New Members*—Herman M. Schrein-er, Lansdale; Walter J. Rogan, Bridgeport. *Reinstated Member*—Claude B. Lerch, Pottstown.

Montour: *New Members*—Joseph R. Bierman, 159 Queen St., Northumberland; Benjamin Schneider, 226 Mill St., Danville. *Removal*—Russell Thomas from Lewisburg to U. S. Hospital, Baltimore, Md.

NORTHUMBERLAND: *New Member*—Clarence E. Phillips, 47 S. 4th St., Sunbury. *Reinstated Member*—Clarence M. Malone, 419 E. Springheim St., Shamokin.

PHILADELPHIA: *New Members*—Nicholas Padis, 4512 Chestnut St., Benjamin Seltzer, 193 W. Chew St., James H. Sterner, Lankenau Hospital, Corinthian and Girard Ave., Philadelphia. *Reinstated Members*—Frank B. Baird, 723 S. 52d St., Joseph Bank, 3301 W. Penn St., Gtn., Charles R. Bridgett, 3332 Chestnut St., James F. Donnelly, 1509 N. 15th St., Horace J. Forman, Jr., 5227 McKean Ave., Benjamin Gruskin, Temple Univ. School of Medicine, Lucy E. Gulezian, 5921 Walnut St., Leopold M. Jacobs, 6602 N. 13th St., Harry K. Roessler, 3456 York Road, Francis W. Sinkler, 1601 Walnut St., Philadelphia. *Resignations*—John B. Carson, Percy G. Hamlin, Philadelphia; Sylvia D. Spencer, Winter Haven, Florida. *Deaths*—Samuel A. Ginsburg, Philadelphia (Balt. Univ. Sch. Med. '03), Nov. 15, 1933, age 58; Augustus F. Kempton, Atlantic City, N. J. (Jeff. Med. Coll. '80), Dec. 6, age 79; Alfred O. Tarrant, Philadelphia (Med. Chi. Coll., Phila., '15), Sept. 21, age 60; Emily G. Whitten-Augé, Philadelphia (Woman's Med. Coll., Phila., '94), Dec. 11, age 57; Richard Penn Smith, Philadelphia (Temple Univ. '12), Dec. 23, age 60.

SUSQUEHANNA: *Transfer*—James J. Grace, Montrose, formerly of Scranton, from Lackawanna County Society. *Death*—A. Stryker Blair, Hallstead (N. Y. Med. Coll. '82), Oct. 10, age 77.

VENANGO: *New Member*—Thomas Thomas, I. O. O. F. Bldg., Oil City.

WARREN: *New Member*—Edwin R. Anderson, 220 Liberty St., Warren.

WASHINGTON: *New Members*—Joseph P. Hughes, Monongahela; Thomas E. Morgan, Fredericktown; Edward Roth, Donora. *Reinstated Member*—Guy H. McKinstry, Hillview Farm San., Washington.

WYOMING: *New Member*—Leslie J. Boone, Mehopany.

PAYMENT OF PER-CAPITA ASSESSMENT

The following payment of per-capita assessment has been received since Dec. 11. Figures in first column indicate county society numbers; second column, State Society numbers:

1934				
Dec. 12	Lackawanna	236-238	150-152	\$22.50
13	Elk	1-8	153-160	60.00
	Berks	1-2	161-162	15.00
	Berks	165	*8010	7.50
14	Cambria	4-5	163-164	15.00
	Luzerne	324	*8011	7.50
	York	29-35	165-171	52.50
	Philadelphia	2196-2197	*8012-8013	15.00
	Philadelphia	1-11	172-182	82.50
15	Bucks	1-20	183-202	150.00
	Montgomery	41-63	203-225	172.50
18	Lawrence	70	*8014	7.50
	York	36-41	226-231	45.00
	Washington	117-119	*8015-8017	22.50
	Washington	1-16	232-247	120.00
	Lehigh	3-5	248-250	22.50
	Elk	26	251	7.50
20	Delaware	1-4	252-255	30.00
	Berks	163, 166-167	*8018-8020	22.50
	Carbon	7-11	256-260	37.50
	Allegheny	25-60	261-296	270.00
24	McKean	2-5	297-300	30.00
	Northumberland	1-10	301-310	75.00
24	Elk	9	311	7.50
	Venango	56	*8021	7.50
	Lackawanna	239	*8022	7.50
	Lackawanna	2-12	312-322	82.50

1934				
Dec. 26	Montour	1-6	323-328	\$45.00
	Center	26	*8023	7.50
	Fayette	1	329	7.50
27	Clearfield	1-3	330-332	22.50
28	York	42-47	333-338	45.00
29	Lycoming	123	*8024	7.50
31	Montgomery	64-82	339-357	142.50
	Huntingdon	1-6	358-363	45.00

1935				
Jan. 2	Montgomery	83-90	364-371	60.00
	Mifflin	3-4	372-373	15.00
	Clarion	11-13	374-376	22.50
	Butler	53-54	*8025-8026	15.00
3	Montour	7-12	377-382	45.00
4	Adams	1-5	383-387	37.50
	Juniata	1-5	388-392	37.50
5	Lackawanna	240	*8027	7.50
	Wyoming	1-6	393-398	45.00
	Warren	3	399	7.50
	York	48-57	400-409	75.00
7	Washington	120	*8028	7.50
	Delaware	5-24	410-429	150.00
7	Columbia	1-15	430-444	112.50
	Mifflin	5-7	445-447	22.50
	Columbia	16	448	7.50
8	York	58-72	449-463	112.50
	Greene	1-2	464-465	15.00
	Adams	6	466	7.50
	Franklin	1-16	467-482	120.00
	Dauphin	9-47	483-521	292.50
9	Northumberland	11-25	522-536	112.50
10	Elk	10	537	7.50
	Greene	3-9	538-544	52.50
	Delaware	25-35	545-555	82.50

County Society Reports

ALLEGHENY

Dec. 18, 1934

"Lymphogranuloma Inguinale," by George A. Holliday, Pittsburgh. This has been called the sixth venereal disease, the 6 being gonorrhea, syphilis, chancroid, Vincent's infection, granuloma inguinale, and lymphogranuloma inguinale. The latter includes some diseases formerly classified separately (climatic bubo, esthiomene, elephantiasis of the pudenda, genito-and-rectal syndrome, and inflammatory stricture of the rectum). These are now grouped as the various manifestations of a single disease transmitted by venereal contagion, having the same pathologic picture, and yielding the same specific virus.

The portal of entry is a primary lesion and later developments depend upon the lymphatic drainage from the initial sore; in the male an inguinal adenitis (climatic bubo) results, and in the female either an adenitis or an adenitis of the intrapelvic lymph nodes with resultant genito-and-rectal symptoms. Climatic bubo was for years attributed variously to syphilis, chancroid, gonorrhea, malaria, tuberculosis, etc., though clinically the mature bubo with its multiple fistulae is a distinct entity.

In 1911 Rost observed that climatic bubo occurred only in seamen free to go ashore and have intercourse with colored women in tropical ports, and concluded that the disease was of venereal origin, and that the virus was present in the vaginas of these women. In 1913 Durand, Nicholas, and Favre described the disease and termed it "lymphogranuloma inguinal subacuta."

In the male the primary lesion is commonly located

* 1934 dues.

in the coronal sulcus, but may be on any part of the glans or mucous surface of the prepuce. It may be extragenital. In the female it may occur on any part of the vulva, most commonly at the fourchet, or upon the posterior wall of the vagina or cervix. The incubation period is from a few days to 3 weeks.

Suppurative lymphangitis may occur; the time from infection to adenitis varies, averaging between 2 and 3 weeks, the limits being a few days to 8 weeks. The adenitis may be unilateral or bilateral; it may be abortive and resolve in a few days.

Aching and stiffening of the groin is the first complaint, followed by development of a single enlarged node, freely movable and slightly tender. Progress of the process results in enlargement of a whole group of inguinal or inguino-crural-iliac groups, and the overlying skin is stretched and shiny. The course of the suppurative adenitis may be a few weeks or months. Involvement of iliac nodes is regarded by some as a diagnostic feature, and is a mass above and behind Poupart's ligament. These rarely suppurate, but they may, if large, cause pressure symptoms.

Constitutional symptoms are usually present during the invasion of the lymph nodes, and include fever, rigors, sweats, anorexia, nausea, and vomiting with loss of weight and prostration. The virus is lymphotropic.

There are late manifestations and sequelae. Elephantiasis of the scrotum and penis may occur. Chronic elephantiasis and ulceration of the vulva and inflammatory stricture of the rectum are known as the genito-and-rectal syndrome. Inflammatory stricture of the rectum, known clinically for years, was only recently identified as one of the symptoms of lymphogranuloma inguinale.

Etiology: The disease is due to an ultramicroscopic virus, determined by the Frei skin test.

Diagnosis: Lymphogranuloma inguinale is to be suspected in cases of subacute inguinal adenitis without evident cause. Drainage of bubo by multiple fistulae and involvement of the iliac nodes are characteristic. Granuloma inguinale is a disease of the skin and subcutaneous tissues in which lymph glands are not involved, and Donovan inclusive bodies are found. The microscopic picture of biopsy specimens is characteristic. The Frei skin test is the ultimate confirmation of the clinical diagnosis.

Treatment: There is no specific treatment. Frei's antigen, subcutaneously or intravenously, has been used. The arsenicals are of no value. Antimony and potassium tartrate (tartar emetic) given in 1 per cent solution intravenously (3 c.c. increased to 10 c.c. until 15 or more injections have been given) is the remedy of choice today, being particularly effective when used before softening of the lymph nodes has occurred. Fuadin (a new trivalent compound of antimony and sodium) is now replacing tartar emetic, is less toxic, and is given intramuscularly. Sodium salicylate given orally in 6 to 8 gram doses daily has given marked improvement. At times there are good results from nonspecific protein treatments. Surgical removal of the lymph nodes before softening is an effective measure. After suppuration has occurred, aspiration of the pus and incision for drainage are indicated.

In discussion G. H. Fetterman stated that the Frei antigen is perishable; one sample gave false reactions 9 weeks after its preparation. Dr. P. H. Greey of Toronto informed him that a Frei antigen that he received from Cleveland gave positive reactions in cases not clinically lymphogranuloma inguinale, and his own antigen gave false positive reactions when used in Cleveland. Interpretation of the Frei reaction should be tem-

pered by analysis of the clinical findings. Benjamin Berger referred to 3 different phases of the disease, some showing perineal fistulae, sinuses, and stricture of the rectum, others the same without stricture of the rectum, and still others with only inguinal lymphadenitis. The perineum was swollen and painful with multiple openings draining varying amounts of purulent and seropurulent material. Those having only adenitis were always unilateral, and the glands were matted together, not especially painful or tender. Frei's antigen was used in 2 cases with very poor results. Fuadin was used in 2 cases with slight improvement. The most satisfactory improvement was seen after use of sodium salicylate in doses up to tolerance over a long period of time. Symptomatic relief was marked, sinus drainage was halted, swelling disappeared, and in cases with rectal stricture, the caliber of the rectum was increased with relief of bowel symptoms.

"End Results in Bone and Joint Tuberculosis and Allied Conditions," by David Silver, John A. Heberling, and R. Ritter.

Five cases of tuberculosis, and 3 cases of affections simulating tuberculosis were presented.

CASE 1.—Tuberculosis of the mid-dorsal spine, now healed. No deformity or impairment of function. Onset 12 months before. Hyperextension in recumbency was used for 10 months, with no consolidation of the diseased vertebrae; operative fusion of fourth to the ninth dorsal vertebrae was done. The points emphasized here are complete correction of the deformity, full restoration of function, and the early age (4) at which a satisfactory fusion was possible.

CASE 2.—Tuberculosis of the spine, disease in both dorsal and lumbar segments, apparently healed with no deformity or impairment of function. When first seen there was deformity of the tenth and eleventh dorsal vertebrae, corrected by hyperextension in recumbency, with consolidation in a year. Four years later the fifth lumbar vertebra was found to be involved extensively but without any kyphosis. Immediate spinal fusion of the fourth and fifth lumbar vertebrae and the sacrum was performed. The points to be emphasized are: Two lesions, one treated successfully by conservative measures, and the other by operative measures.

CASE 3.—Tuberculosis of the right hip, healed more than 9 years; no shortening or impairment of function; onset 14 years ago with characteristic symptoms. Treatment for 8 months by recumbency and immobilization in plaster spica. Progress unsatisfactory, and was hospitalized and treated by recumbency with traction. After 15 months joint thickening had disappeared, and motion began to return. In 18 months more motion of the hip was free and walking was begun. The patient remained hospitalized 5 years, and on discharge 9 years ago there was no evidence clinically or radiologically of any abnormality except for slight limitation in abduction. Emphasis here is on complete restoration of joint contour and function.

CASE 4.—Tuberculosis of the right knee, probably synovial, now symptomless, with radiographically normal joint surfaces, and with returning motion. Onset 3 years and 9 months ago, 3 months after the knee had been injured by a fall. There were pain, night cries, swelling, and deformity. The tuberculin test was negative. After 10 months' treatment the knee seemed normal. There was a relapse with symptoms as before at the end of 2 months, and the patient was hospitalized. The tuberculin skin test was positive. Weight-bearing without motion was permitted by means of a walking caliper. General heliotherapy and local radiotherapy

were given. The latter was given in a series of 3 treatments 10 days apart with not less than a month between each 2 series; 3 such series were given. After the disease became quiescent, a special joint was attached to the brace to permit gradually increasing knee flexion, and physiotherapeutic measures were begun to restore tone and strength of the quadriceps. Swelling has now been absent for 9 months, and knee flexion reached a right angle 3 months ago. Attention in this case is directed to: Satisfactory progress toward cure in the knee; use of radiotherapy; gradual increase of joint movement in convalescence; and, the attention paid to building up weakened quadriceps before protective apparatus is discontinued.

CASE 5.—Extensive tuberculosis of the left carpus, with actual destruction of the second, third, and fourth carpometacarpal articulations and early sinus formation; no evidence now of joint thickening; more than one-half normal motion, and roentgen-ray evidence of osseous regeneration. The disease began 5 years ago, and the patient was hospitalized 15 months after the onset. General treatment was begun. Locally the deformity was gradually corrected by a splint, and the part immobilized with the hand in dorsal flexion. The fingers were allowed to be free, but for a time the elbow was included in the fixation. There was general heliotherapy during the summer, supplemented by carbon arc radiations during the winter, and 2 series of local radiotherapy were given. One year after admission the thickening had nearly disappeared, a fair amount of motion had returned, and roentgen rays showed beginning regeneration in the bones.

CASE 6.—Chronic arthritis of the left ankle, clinically and radiologically healed, with normal joint surfaces and full motion. Onset at age 2. Hospitalized several months later. The ankle had the appearance of tuberculosis but tuberculin skin tests repeatedly were negative. Local immobilization with recumbency, heliotherapy supplemented by ultraviolet radiations, and general measures were used. Nine months after admission, tuberculosis still being suspected, biopsy was done. The tissue was examined, and a guinea pig injected, and the results were negative.

CASE 7.—Juxta-acetabular osteomyelitis of left ilium, simulating tuberculosis of the hip joint, with sinus formation and marked limitation of motion; healing with full abduction and 15 degrees more than right angle flexion, and with normal gait. Onset 3 years ago, increasing in severity until confined to bed, and after 2 weeks in bed there was a sinus on the lateral aspect of the thigh. The patient was hospitalized 6 months after onset. The diseased bone was curetted and adequate drainage established. The sinus closed first 18 months after admission, but reopened, closing finally 5 months later; it has now been closed for 8 months. The limitation of motion finally yielded to traction and physiotherapy.

CASE 8.—Chronic villous arthritis, of probably infectious origin, aggravated by strain due to extreme atrophy of the thigh muscles and consequent instability, and complicated by loss of flexion; healing practically complete, full extension, and 65 to 70 per cent restoration of the thigh muscles. The onset was 2 years before admission, with a history of severe injury to the joint 9 years before. A diagnosis of tuberculosis is said to have been made at that time, and the joint immobilized in a cast. When the cast was discontinued several times the symptoms returned. Extreme atrophy of the leg muscles, particularly the quadriceps, was the striking feature; marked crepitation indicated considerable vil-

lous formation; roentgen rays showed no evidence of bone pathology; full extension was possible, but flexion to only about 15 per cent. The skin test for tuberculosis was strongly positive, as was the intradermal test for sensitiveness to streptococcic strains. It was not thought that the joint condition was tuberculosis, and when the diseased tonsils were removed, a biopsy was done on the knee joint under the same anesthetic. The report on the tissue was chronic nontuberculous inflammation. Massage, hydrotherapy, electrotherapy, etc., were all used with some benefit but most valuable of all was muscle training, which consisted in teaching the patient to contract the quadriceps as vigorously as possible with each step. The points emphasized here are the value of biopsy in doubtful cases, and the important part that may be played by the atrophy of the thigh in perpetuating disability of the knee.

"Management of Lobar Pneumonia," was discussed by Thomas A. Miller, who said in part: Pneumonia remains the most serious acute infectious disease. In the period 1920-1929, in the registration area of the United States, there were 520,000 deaths from this disease. The mortality has not materially changed in 80 years. The death rate in ages 21 to 30 is 20 per cent; ages 31 to 40, 30 per cent; rising with each decade, until at the seventh it exceeds 50 per cent. The degree of bacteremia in patients under ages 40 to 50 seems to be the determining factor. Felton's Concentrated Antibody Solution is of use in Type I and Type II pneumococcus pneumonias, greatly benefiting Type I, and, to a lesser degree, Type II. Serum, due to type specificity, is of value only in the homologous strains of pneumococci, and apparently useless in the others.

The principles of management in pneumonia are to conserve the resources of the patient, prevent and combat toxemia, and to treat symptoms as they arise. Rest is imperative. The room should be the quietest and best ventilated in the house. An able and experienced nurse is invaluable. The schedule of feedings and medication should be written out, and carried out. Feeding schedules for every 2 or 3 hourly intervals are best. Sponging, unless the temperature exceeds 104° F. or the skin is too warm, damp, or dry, should be omitted in the interest of rest. The bed should not be made up unnecessarily. Too frequent examination should be avoided. The initial or early examination is usually sufficient. Older patients, to avoid pulmonary stasis, should be turned gently from time to time, and the position of the shoulders changed. All windows should be kept open; use judgment in cold weather and individual cases. The young stand cold air well, as older patients do not, and the temperature may have to be modified to suit them. Diet: Many patients early in the attack cannot eat as they are nauseated; give glucose by bowel to these. Nausea is an indication of toxemia, and free administration of water is needed. Sweet milk diluted with lime water, buttermilk, cooked cereals, eggs, scraped beef, gruels, ice cream and sherbet, fruit juices, coffee, tea, and malted milk will furnish the caloric requirements. When milk is given, its caloric value is enhanced by adding 1 ounce of cream and one-half ounce of lactose to each 6 ounces of milk, giving about 220 calories. Addition of salt to the diet may do good, and can do no harm. Fluid intake should be free. One half pound of glucose added with the juice of 2 lemons to 3 pints of water supplements carbohydrate administration and supplies about 900 calories. Keep a daily record of fluid intake and output. As acidosis seldom is present in the pneumonia patient, there is no advantage in alkalization; it may be that there is danger of producing alkalosis. For the bowels, the

old custom of initial dose of calomel dissolved in the mouth, followed by castor oil, has something to commend it. A cascara pill, magnesia, or an enema should be sufficient to ensure daily evacuation of the bowels. Tympanites is a good indication of the extent of toxemia, though it may be caused by fermentation. Frequent use of the rectal tube is of benefit in evacuating the gas; pituitrin hypodermically may be used; an enema of milk and molasses or alum and glycerin may be used.

Pleural pain is relieved best by morphine. Strapping is preferred by some and is effective in mild instances. Artificial pneumothorax has been used recently in relief of pleuritis, but requires an expert knowledge and is therefore not generally available. If the pleuritis is severe or persistent, be on the look-out for pleural effusion. For the cough, reliance should be placed on single drugs, as codeine, or Dover's powder every 2 or 3 hours.

Insomnia is at times a real problem, and for its relief morphine is the best and most effective agent. In older patients or those threatened with pulmonary edema, it is best given in small doses, repeated if necessary at frequent intervals. Hyoscine and morphine may be used and smaller doses of each are required than if used separately. Mild barbituric compounds may be useful. Paraldehyde may be given by rectum in starch solution, to induce sleep.

For circulatory failure the heart should be observed, and the rate and rhythm, with the second pulmonic and first apical sounds noted. The early signs of myocardial failure with the right-sided dilatation are lessening and accentuation of the second sound, weakening of the first apical, and increased rate or change in rhythm. Continuing failure produces tachycardia, arrhythmia, cyanosis, increased respiratory rate, and falling blood pressure. Strophanthin should then be used intravenously, or a digitalis preparation intravenously. Strophanthin reaches its maximum effect in an hour, and lasts for 24 hours; digitalis in 2 hours, and continues for 48 hours. Further digitalization can be accomplished in the usual manner.

Oxygen should be given at the first sign of anoxemia or cyanosis, preferably administered by the tent method, or if this is not available, by the nasal catheter. Give atropine $\frac{1}{15}$ to $\frac{1}{30}$ of a grain hypodermically and repeat in 2 hours if pulmonary edema is present. Caffeine sodium benzoate may be given subcutaneously in 5 grain doses every third hour. Concentration of oxygen should be between 35 and 50 per cent; not exceeding 50 per cent. Digitalis should not be used routinely, only when indicated. Quinine has never quite vindicated itself in the treatment of pneumonia.

Specific therapy: Felton's Concentrated Antibody Solution is of value in Type I pneumococcus pneumonia, and reduces the mortality 50 per cent if used early and in adequate dosage. Type II serum is less effective and requires larger doses. About one-half of patients under age 50 will have either Type I or II. Serum should be used within 4 days, the earlier the more effective and the less required. If no effect is noted within 48 hours, serum therapy is probably useless. Typing always should be done, since serum is type specific. If typing cannot be done, give a dose of the combined Types I and II. Test or question for sensitivity to serum. Serum is of little or no value unless used intravenously.

A certain proportion of cases will die in spite of any therapeutic measure. A certain number will probably get well with any or no treatment. Between these 2 there is a third group in which skilled nursing, favorable surroundings, and adequate facilities, together with ex-

perience, good judgment, and alert watchfulness on the part of the physician may undoubtedly determine in some cases a favorable outcome. In the absence of specific sera for each of the types of pneumococcus, it would seem that treatment should be directed to the more careful cultivation of supportive measures, particularly of the nervous and cardiovascular systems; to the attainment of greater familiarity with the few useful drugs we now possess; when to use them and what effects to expect; the employment of homologous sera in appropriate types; and first and last, to observe the circulation.

In discussion R. R. Snowden emphasized the use of common sense in the treatment of pneumonia, and that attention should be directed to the comfort of the patient. Perhaps nature knows the treatment of pneumonia better than we do. Perhaps a drop in blood pressure relieves the burdened heart, or very high temperature hastens the development of immunity. Perhaps a trial of treatment designed to do nothing but keep the patient comfortable would be illuminating. The important thing is to keep the patient comfortable and do as little else as possible. Morphine to relieve pain and cough and thus bring rest comes first.

Harold P. Hook spoke on "The Challenge to Medicine," a discussion of various phases of the economics of present-day trends in private and state medicine.

The reading of the scientific papers was followed by the showing of a motion picture illustrating modern methods of anesthesia.

Preceding and following the meeting there was a scientific exhibit in the lobby under the auspices of the staff of St. John's Hospital.

Dec. 28, 1934

This was a special meeting, held at Carnegie Lecture Hall, devoted to economics. It was intended to be educational and instructive, and also to offer to members an opportunity for free discussion of the various phases of so-called state medicine. The meeting was largely attended.

The following papers were read: "Pennsylvania's First Year of the Emergency Medical Relief Service," George L. Lavery, Harrisburg, chairman, Medical Advisory Committee to State Emergency Relief Board; member, State Society Committee on Workmen's Compensation Laws. "How Health Insurance Has Worked in England and Germany," by George R. Harris, chairman, Committee on Branch Organization, Allegheny County Medical Society. "The Proposed Health Insurance Bill of the American Association for Social Security—A Critical Analysis," by Samuel B. Goodstone, member, Committee on Medical Economics, Allegheny County Medical Society.

GEORGE R. HARRIS, *Reporter*.

BERKS

Dec. 11, 1934

The meeting was held at 3:15 p.m., in Medical Hall, Reading, with President Ralph L. Hill presiding; 50 were present. William E. Robertson, Philadelphia, spoke on "The Schilling Blood Count."

Dr. Robertson said in part: Because of the different views as to the origin and nature of the various leukocytes, their classification is difficult. The appearance of the cells varies with the type of stain used. Ehrlich introduced a staining method which made it possible to study the morphology of these cells. He divides the leukocytes into 2 systems—the bone marrow and the

lymphoid tissue, granulocytic and nongranulocytic respectively. Then basing their nomenclature upon the staining characteristics of the cytoplasmic granules, these may be further classified into basic, acid, and those in the borderline—the neutrophilic cells.

Arenth was the first to study the nuclei of the polymorphonuclear elements and he devised the nuclear index. He claimed the cells with the least complex nuclei are younger than those which have a multiple segmentation of their nuclear tissues.

Schilling modified the Arenth classification by dividing the neutrophilic elements into 4 classes: (1) Myeloblast, premyelocyte, myelocyte (simple round nucleus); (2) metamyelocyte (slight indented nucleus); (3) stabkernige or staff form (deeply indented nucleus); (4) segmentkernige or segmented neutrophils (polymorphism). These 4 classes are subdivided into immature and mature. In a healthy adult the immature cells, including metamyelocyte and stabkernige forms, make up 4 per cent of all leukocytes. The mature cells, including all segmented forms, make up 63 per cent of all leukocytes. The normal physiologic total is 67 per cent. Schilling further compiled the normal physiologic percentage of the remaining leukocytic elements giving a percentage relationship as follows:

A					B		
B	E	M	J	St	S	L	Mo
1	3	0	0	4	63	23	6

B—Basophile; E—Eosinophile; M—Metamyelocyte; J—Juvenile; St—Stabkernige; S—Segmented; L—Lymphocytes; Mo—Mononuclear.

An increase in cells under "A" indicates degenerative processes, or a "shift to the left," which is an expression of defective function of neutrophilic leukopoiesis occurring in the bone marrow. An increase in cells under "B" is an indication of a "shift to the right"—a favorable or regenerative process.

The Schilling differential count in disease is a more sensitive indicator than either physical signs or fever. In the critical stage of an infection, differential counts should be made 12 or 24 hours apart because there are diurnal tides of leukocytes, and repeated hemograms are of more value than single ones.

The differential count reflects the degree of toxic absorption and is not influenced by body resistance. It shows a biologic reaction to disease, not necessarily specific for each infection.

The differential blood picture must always be observed together with complete clinical findings. Definite and certain clinical symptoms must never be disregarded because of absence of clinical symptoms.

In the white cell blood picture, the first response to infection is the neutrophilic battle phase. When there are more stabkerniges than usual, the shift to the left is degenerative. When the number of juveniles is increased, the shift to the left is degenerative. When both stabkerniges and juveniles are excessive, the shift to the left is degenerative-regenerative. When myelocytes are 5 per cent or more, there is a leukemoid shift, and the infection is most severe. The total white count does not mirror the severity of the infection; it is dependent on individual body resistance. An increased total count, when the differential is unfavorable in each count, is indicative of a pyogenic infection. But an increased total count, when the differential is favorable

in each count, is only a physiologic liberation leukocytosis. A total count of 10,000 is considered as the start of a pathologic leukocytosis except in the above case. Two thousand is the possible error in a single count. A neutrophilia of 75 per cent is considered pathologic; 5 per cent is, however, the possible error in a single count. A normal number of white cells, on the other hand, when the differential is unfavorable in each count, indicates an inhibition of the bone marrow by toxemia. The second response to infection is the monocytic defense or subjection phase. The third response to infection is the lymphocytic phase. The difference in the infectious blood picture is caused by temporary shifts of the 3 phases; by the varying intensities of the reaction of the individual groups; or by the appearance of rarer forms.

In the red cell blood picture, peripheral degeneration decreases the number of the red blood cells by distortion or by destruction. The cells normally live 20 to 100 days, and destruction takes place in the liver and spleen where the hemoglobin is set free. Central degeneration decreases the number of the red blood cells by disturbance of the parent cells. Central regeneration accounts for the pathologic entrance of new cells into the circulation after hemorrhage or toxic stimulation. The appearance of "blast" cells and generally irregular forms indicate the failure of normal regeneration. The red blood picture and the total number of erythrocytes are the result, depending on the time interval, of varying coöperation between central and peripheral degeneration and central regeneration.

The prognostic sign in the differential count, where basophiles are greater than one, means that defense forces are broken down, and is therefore an unfavorable sign. Eosinophiles are the first cells to disappear in infection; and their presence therefore is favorable. Myelocytes are the parent bone marrow cells and, when present, are a sign of extreme bone marrow irritation or toxemia, indicating an extremely unfavorable condition. Juveniles develop from the myelocytes and their presence in adults establishes great bone marrow irritation. They are likewise unfavorable. Stabkerniges greater than normal show toxic arrest of segmentation, and are also an unfavorable indication. Segmented greater than normal show either pyogenic infection or bone marrow stimulation. Lymphocytes disappear in acute pyogenic infections and increase in chronic infections. Monocytes decrease in acute pyogenic infections and increase in subacute infections.

In general, toxins from pyogenic infections tend to stimulate the bone marrow and depress the endothelial and lymphatic tissues. Toxins from the tubercle bacillus tend to depress the bone marrow and to stimulate the endothelial and lymphatic tissues. Tuberculin is the best agent in producing focal activity. Toxins from the typhoid bacillus tend to depress the bone marrow, and to stimulate the lymphatic tissue.

Jan. 9, 1935

The meeting was held at Medical Hall, Reading; President Ralph L. Hill presiding. Election of the following officers took place: William L. Krick, president; Ralph L. Hill, 1st vice-president; Ralph L. Reber, 2d vice-president; Richard C. Travis, secretary; Daniel Longaker, treasurer; Pearl E. Hackman, reporter; Calvin B. Rentschler, librarian; Walter W. Werley, censor. Delegates to State Society, Frank P. Lytle and Ralph L. Hill; alternates—Hugh P. Shellabear and George R. Hetrich; Harry B. Corrigan and Harold Strause. Sixty-five were present.

Floyd E. Keene, professor of gynecology, University of Pennsylvania, gave an address on "Menopausal Uterine Bleeding."

Dr. Keene said in part: From the age of puberty on, uterine bleeding has to do not only with many and perhaps most of the mental and physical ills, but it also serves as an index to health. These remarks have been limited to a discussion of the principles underlying the differential diagnosis in the presence of certain definite changes during the premenopausal and postmenopausal decades. In women over age 40 with irregular bleeding, the causal lesions can be divided into 2 large groups, the structural and the functional. During the premenopausal years, functional disturbances (endocrine imbalance, usually of ovarian origin) play a leading rôle in the production of abnormal bleeding, though in the presence of organic disease, myoma, endometritis, *etc.*, the structural rôle is the more important. During the postmenopausal years, the disturbances are not of endocrine origin but due to structural changes, either benign or malignant.

Incidence of benign and malignant changes responsible for irregular bleeding before and after menopause: Irregular bleeding is benign in origin in 86.4 per cent of the patients during the premenopausal years, and malignant in 13.6 per cent. Even during the premenopausal years there are instances of malignancy giving rise to bleeding. During the postmenopausal years the malignant lesions are in the ascendancy and account for almost two-thirds of the cases of irregular bleeding, the benign lesions, 38.7 per cent. Of the organs involved, the body and cervix of the uterus are the most common sites. Benign uterine lesions cause bleeding prior to the menopause in 64.8 per cent of the cases. The tubes and ovaries are next in frequency of involvement, 28.7 per cent. The functional diseases causing bleeding are ovarian cysts, tubal pregnancies, adnexitis, and other lesions of the tubes and ovaries. The cervix and vagina are rarely the site of benign bleeding, but when found may be caused by simple ulceration, benign ulceration, vaginitis, *etc.* The systemic diseases which may cause bleeding are anemia, acute infection, influenza, and typhoid fever.

Postmenopausal changes in the site of the lesions causing bleeding: The cervix and vagina form 75 per cent after the menopause has developed, the tubes and ovaries 2.1 per cent, and the uterus 16.7 per cent. The uterus is no longer the most common site of benign bleeding.

Malignant lesions of the organs before and after menopause: 76 per cent of the cancers are cervical, 15 per cent are of the fundus of the uterus, a small number involve the vulva and vagina, while 5.8 per cent involve the tubes and ovaries. Postmenopausal cancer of the cervix is the most common, while cancer of the vulva and vagina is rare. Cancer of the body of the uterus and cervix is found in 90 per cent of the patients. Cancer of the tubes and ovaries also is rare.

The types of benign lesions, premenopausal and postmenopausal: The bleeding is of neoplastic origin in 66 per cent of the cases. Myoma of the uterus is found in 60 per cent of the cases after age 40. The next most common is the uterine polyp after which is the ovarian cyst. Functionally, the uterus shows no bleeding in the absence of organic disease. Normally, hormone stimulation occurs at regular intervals and is called menstruation. Abnormal bleeding is of a functional type in one-fourth of the patients. During the earlier decades bleeding may be from pregnancy or pelvic inflammatory disease. After age 40, pregnancy and infection sink into

the background with the ascendancy of the functional and neoplastic causes continuing until ovarian function ceases. After age 40, pregnancy and infection form 7 per cent, trauma a small amount, neoplastic 40 per cent, benign 36 per cent, and myoma 15 per cent. A myoma is a tumor which depends for its development and growth upon ovarian function. They never develop in a normal uterus after the menopause. If they exist, they are merely a heritage persisting from the premenopausal period. Premenopausal myomata, due in large measure to ovarian function, give rise to abnormal bleeding. Although usually disappearing or becoming atrophied at the menopause, they may in some instances persist after cessation of ovarian function and undergo extensive degeneration. Control can be accomplished by the removal of the tumor or by ablation of the ovarian function. In bleeding from myomata after the menopause, ovarian function plays no part whatever; bleeding is due to structural changes in the tumor or associated malignancy in the uterus or adnexa.

The preferred premenopausal treatment is irradiation therapy. Postmenopausal degeneration, either benign or malignant tumors, should never be treated by irradiation, always by operation.

Postmenopausal bleeding from inflammatory lesions of the vagina, chronic adnexitis, and endocervicitis with erosion is next in frequency to tumors.

Benign erosion of the cervix rarely bleeds and, when bleeding takes place, the lesion should be considered malignant until proven otherwise by biopsy. Chronic endometritis is extremely rare. Inflammation, kraurosis, endocervicitis, erosions, and traumata are usually associated with cystocele, rectocele, and prolapsus uteri. The endometrium after the menopause is very thin, it being sometimes impossible to obtain enough tissue for examination. To have hyperplasia here is extremely rare. If present, it is due to prolonged estrual stimulation. Bleeding of hyperplasia is produced by granulosa cell tumor of the ovary secreting estrin ("Rejuvenation").

Sixty-seven per cent of all the cervical lesions which give rise to irregular bleeding before the menopause are malignant; when an erosion of the cervix bleeds, the chances are more than 50 per cent that the lesion is malignant. Bleeding due to benign lesions is 33 per cent. Practically the same conditions exist after the menopause. Cervical lesions which bleed are usually malignant.

Benign and malignant lesions of the body of the uterus: Before the menopause, malignant lesions of the body of the uterus form only 4 per cent of the entire group; 96 per cent are benign, the bleeding being due to myomata or functional disturbances. Menorrhagia (increased duration of the flow) with intervals free of bleeding from any source is never malignant. Metrorrhagia (intermenstrual bleeding) may be produced by either benign or malignant lesions. Carcinoma is rare before the menopause. Before diagnosing, however, a dilatation and curettage should be done. Bleeding which occurs after the menopause will be malignant in 78.9 per cent of the cases. In patients with a normal cervix showing blood from the cervical canal, the chances are that 78.9 per cent are malignant. Adnexal cancer shows a normal cervix with bleeding due to malignant lesions in 80 per cent of cases.

In discussion C. H. Shearer said irregular bleeding needs close observation, whether before or after the menopause. This address proves that a diagnosis can be made, and be made early enough to permit a cure. Most women menstruate normally month after month

with irregularities to which they become accustomed, and the fault lies in the fact that the patient does not seek medical attention sufficiently early. It is of the utmost importance to make a thorough and careful examination, no matter how slight the irregularity.

PEARL E. HACKMAN, *Reporter*.

CHESTER

Dec. 18, 1934

The meeting was held at the Chester County Hospital. Dr. Clarence S. Kurtz presented the society with a copy of the *Morning Republican*, dated June 2, 1829, which contained a notice of the annual meeting and election of officers of the Chester County Medical Society. The recommendation of the County Society Economics Committee that the plan presented by Dr. Max H. Weinburg at the recent State Convention be restudied by the Economics Committee of the State Society was adopted. The Executive Committee endorsed the recommendation of the Public Health Committee that said committee have a voice in the selection of and in the determination of activities of the County Health Doctor. A motion prevailed that the previous committee appointed by the president consisting of Drs. Sharpless, Gifford and Bullock together with 2 lay members selected by them be increased to include 2 members from the Public Health Committee selected by the president. It was further agreed that the Public Health Doctor Committee as well as the Public Health Committee suggest a plan outlining the duties of the Public Health Doctor, and it was further directed that the Executive Committee review this subject and make specific recommendations at the next meeting outlining the duties as well as the necessary supervision of the Public Health Doctor.

William A. Kraemer of Wilmington, director of the Tumor Clinic at the Jefferson Hospital, Philadelphia, presented a report based on the experiences of this Tumor Clinic from January 1, 1930 to December 31, 1933.

Dr. Kraemer referred to the continued rise in the cancer death rate throughout the country in recent years and the earnest efforts of the American Society for the Control of Cancer in conducting an active campaign in many states urging an early diagnosis of this condition. The tumor clinic forms an important part of the program for cancer control. A major phase of the tumor clinic program must consist of coöperation in a community plan of education that will bring patients to it in the early stage of the disease. Of equal importance in the program of cancer control is a plan of research directed toward the increase of knowledge concerning the etiology of cancer and the improvement in methods of treatment. Reference was made to the great interest as well as the financial support of Mr. Pierre S. duPont and Mr. Lammot duPont in making possible the Tumor Clinic at Jefferson. Charts were presented illustrating several interesting facts concerning cancer. Graphs were shown illustrating that the relative mortality of cancer depends upon the anatomic lesion of the disease; that the incidence of fatal forms of cancer is higher among females than among males, which results in a higher cancer mortality rate for females than for males. The relationship of prognosis to location is important when the diagnosis of cancer is considered. Graphs were presented illustrating the well-known fact that cancer cases become much more common after age 45, while the predominant form of malignant tumor in persons under age 25 is sarcoma.

Jan. 15, 1935

The meeting was held at the Chester County Hospital. The doctors were joined by the members of the Woman's Auxiliary at luncheon. The Legislative Committee has written President Roosevelt's Committee on Economic Security concerning the all important subject of suggested changes in medical practice. The Public Health Committee presented a report outlining a suggested program for their County Society in this important field of medical activity. Instead of placing the direction of the Public Health Doctor directly under supervision of the Public Health Committee as now exists, the Executive Committee recommended: (1) That a Public Health and Public Relations Commission, consisting of at least 12 members, be appointed by the president, and that this Commission be subdivided into several subcommittees, such as Infant Mortality, Appendicitis Mortality, and Public Health Doctor Committee; and (2) that the present Public Health Doctor Committee constitute the Public Health Doctor subcommittee of the Commission on Public Health and Public Relations.

Dr. Scattergood, Sr., was unanimously endorsed as Medical Director for Chester County.

JOSEPH SCATTERGOOD, JR., *Reporter*.

DAUPHIN

Dec. 4, 1934

The meeting was held in the Academy of Medicine Building, E. Kirby Lawson presiding.

M. A. DeLaney, Brigadier General, Medical Department, U. S. Army, assistant surgeon general, Carlisle (Pa.) Barracks, presented a paper "What the U. S. Army Medical Corps has Done for Medical Progress." (This paper was read before the Lancaster County Medical Society, Nov. 7, 1934, for abstract of which see the January JOURNAL, page 292.)

A paper was read by S. McC. Hamill, Philadelphia, chairman, State Child Emergency Relief. He said in part: The war-time activities of lay groups in public welfare and maintenance of health were organized with the complete sanction of the trustees of the State Medical Society. Due to the shortage, at that time, of medical personnel these activities were carried on without medical guidance. These lay activities gained momentum and organized strength that was destined to overlap the war period. They realized the possibilities for health improvement among women and children and naturally continued to give time and organizing ability in this direction. Thus from a great urge to offset the wastage of war the Sheppard-Towner Act was born.

Organized medicine for years remained aloof from these modern welfare tendencies, partially because of the speed these organizations demanded. Thus was the active medical leadership neglected and dissipated and public sentiment that could have given real leadership for human betterment misguided.

The trustees of our State Medical Society, realizing the tremendous loss entailed, have ardently and diligently searched for an opportunity to present medical leadership in some worth-while public health project which presented itself with the unemployment relief program.

The profession was asked for 2 medical men to evaluate food issued by commissaries and on food orders. They were soon supplemented by committees from each county society to advise local relief boards.

The very evident increase of malnutrition in school

children of unemployed families impelled the request that milk be provided for such children. The distribution of this milk was planned by the county Medical Director, in coöperation with school officials. This was further augmented by a committee of 3 or more medical men to consult with members of local Health Departments in milk distribution.

The Junior Red Cross, Junior League, and the well baby clinics, with commendable supervision, shared in minimizing physical catastrophe due to long-continued malnutrition.

At an all-day meeting held in Harrisburg, March 2, 1933, the reports of a malnutrition conference held in this city, at which the State Medical Society was well represented, were considered. This conference had concluded that too much time was lost if treatment awaited the appearance of malnutrition, and the enormous sums of money available made real medical guidance in growing sounder, better bodies for children whose families are on relief, a real work. The conference agreed that physicians are as necessary to determine child food needs as drug and dosage needs.

Here was the opportunity for organized medicine to make a real contribution to child welfare and health. The officers and trustees of the State Society created first a central state committee, to be augmented by county committees locally chosen, whereby medical men as leaders could coöperate with the professional and lay groups in food distribution, keeping health and growth paramount.

The organization is composed of state committees, officers elected by trustees of the State Medical Society and representatives of all child health, welfare and educational agencies. The secretary of the State Society acting for the Board of Trustees appealed to the component county societies to form like committees under their auspices to be presided over by a local member, with a lay woman preferably as vice-chairman, the latter to be acceptable to both organized medicine and lay child health and welfare groups of the county.

The plan was to bring children of families on relief to their own physician who could intelligently evaluate their health status. An examination form presented by a committee of 10 pediatricians was approved by the Board of Trustees. This form consisted of a complete physical examination of the undressed child, a complete history of health habits and food intake, and finally a summary of findings and hygienic advice. Two volunteer assistants would take histories, weigh and measure the children. A record of the findings, hygienic advice, and food requirements to be dictated, with the economy of the physician's time in view, was suggested by the State Committee. The lay group would be assigned to carrying out the recommendations as determined by the committee.

The members of the State Medical Society are included in the request for coöperation and for the first time in the history of the Commonwealth are in position to give a most worth-while leadership.

The trustees have realized that a large lay group would correctly see the medical man's viewpoint in preventive medicine and body building. Thinking citizens would realize the worth-whileness of periodic health examinations for children of all ages. Lay workers would publicize and create a demand for examinations of children of all classes, a propaganda the doctor could not and would not carry alone.

The examining physician with volunteers should average 4 examinations an hour after he has familiarized himself with the forms. If his advice is complete he

will, therefore, in 15 minutes outline 15 hours of follow-up time for his lay group.

Estimating the number of children on relief per doctor in Dauphin County there will be less than 60 children per doctor so represented. Fifteen hours of work spread over a number of weeks would suffice, resulting in a real service of great social value in building up family morale and maintaining the family doctor relationship against that time when such a relationship will be on a normal basis.

To date the results have been highly satisfactory; 56 out of 57 counties are coöperating with alarming findings. Thirty per cent of the children are suffering from malnutrition. Defects are being found and corrected; *viz.*, eyes, ears, and teeth. Malnutrition where found by the examining physician is being combated by food demonstrations under medical supervision. Immunization against diphtheria and vaccination against smallpox is being pushed. All organic diseases found are treated under medical supervision.

The program does not form a new competing agency but asks for a closer coöperation between existing agencies under County Medical Society leadership. In this way duplication is eliminated, better understanding of mutual problems is arrived at and no worthy individual is neglected because he falls between agency limits.

In Montgomery County where innumerable agencies exist County Society members are leaders. But here again the child not falling into the purview of any of these agencies is neglected and creates a problem that demands action.

The following are given as a justification for the work:

1. That it represents a service to the children of Pennsylvania that is imperative if we are to prevent the destructive effects of this prolonged period of economic distress.
2. That it will establish outstanding medical leadership in health work, a goal we have all been striving for these many years.
3. That it maintains the family-physician relationship until such time as reëmployment will make possible payment for the physician's service.
4. That it will be the most effective method of establishing the practice of periodic health examinations, a procedure the medical profession has been advocating rather unsuccessfully for some years.
5. That it would make us all more conversant with the art of conducting these health examinations.
6. And finally, that it will prove a most valuable contribution to the prevention or at least postponement of State medicine.

Why is it that so many agencies and laymen are demanding some form of socialized medicine? Because there are so many people that are not receiving adequate medical care.

We need every possible weapon within reach to fight the powerful influences that are organizing this demand for health insurance. We must by every sacrifice at least postpone the attainment in this demand for health insurance, that the medical profession may have the opportunity, if its coming is inevitable, to determine what kind of health insurance laws the medical profession would be willing to accept.

Jan. 8, 1935

The meeting was held in the Academy of Medicine building, Harrisburg, 8:30 p. m.; President E. Kirby Lawson presided.

The following were elected to membership: Christian J. Kleinguenther, Elizabethtown; Hamil R. Pezutti and Augustus J. Podboy, Harrisburg; and Henry R. Shallenberger, Union Deposit.

J. F. Reed resigned as editor of the *Academician*.

The following officers were elected for 1935: President, Henry R. Douglas; president-elect, Park A. Deckard; vice-president, Ralph Pilgrim; secretary-treasurer, J. A. Daugherty; district censor, David S. Funk; censor, L. W. Wright; trustee, E. Kirby Lawson; nominating committee, E. S. Everhart; reporter, S. B. Fluke; delegate to the State convention, J. F. Culp; alternates, Harvey F. Smith, P. A. Deckard and E. A. Nicodemus.

The address of the retiring president, E. Kirby Lawson, was devoted to "Some Economic Ills of the Medical Profession." He said in part:

The economic outlook for those who practice the healing arts is not good. In fact it is alarming. This condition has been brought about by 2 main factors; namely, an ever increasing free service to those requiring medical attention, and a corresponding decrease in the number of those who pay for the services of a private physician.

Reference may be made to the growth and extension of hospital dispensaries and their metamorphosis from a service to the poor to one that caters to all classes of people, those able to pay as well as those unable to do so; and the establishment of various types of clinics until the field of specialized medicine and medical practice in general is almost covered. All of these have, in some measure, adversely affected the private practice of medicine. The most alarming feature of their activities is the unintentional education of the public to expect free medical service. Beginning with the well baby clinic; later, preschool examinations; then free immunization against diphtheria; check-up by school physicians and dentists; free tuberculin tests and roentgen-ray examinations, etc., all accustom the child to various sorts of free medical service.

What is more natural then, than that the children should leave school with the idea that medical service need not involve expense and so take advantage of the hospital dispensaries and clinics as the need develops?

It has been estimated that of the 123,000,000 population of the United States at least 1 per cent are sick each day. As there are approximately 142,000 physicians to care for this sick population of 1,230,000, there should be a proportion of 929 sick persons to each doctor. However, about 500,000 persons are treated daily in free clinics, which free service has increased 300 per cent during the past 10 years. There should remain a clientele of 730,000 to be treated as pay patients by private doctors, but about 35 per cent of these do not pay their doctor bills. About 474,000 is a fair estimate of the number of pay patients available daily to the medical profession, or slightly less than 4 to each doctor. No such even distribution occurs, however, nor have we taken into account the inroads made by the various cults and the free service afforded World War veterans, government employees, and dependents. It would appear then that far less than 400,000 sick persons each day seek the services of physicians and pay for what they get.

If these figures seem exaggerated, consider the report of one Philadelphia hospital for 1933, not one of the largest, in a city more than plentifully supplied with such institutions. During that year there were given 105,000 examinations and treatments in the clinics. About one-half were paid for but no doctor received

compensation. The staff of doctors contributed 180,000 hours free to clinics and ward service; 2500 operations were performed for which neither doctor nor hospital received any compensation.

It may be of interest to know what free service was rendered by the 2 local hospitals, the Harrisburg and the Polyclinic, during 1933. There were 78,799 dispensary examinations and treatments; 2614 operations were performed as charity. An extremely conservative estimate of the value of this local service would be around \$209,499, which does not include any estimate of the value of medical ward service nor obstetric work. It is impossible to fix the amount and the value of services contributed by the doctors in their private practice.

The hospitals, in general not content with serving without charge the indigent and those willfully misrepresenting their financial status, deliberately encourage pay patients to avail themselves of dispensary and ward services and artfully evade responsibility for medical fees. Having at their command professional skill which costs nothing, they cheerfully enter into active competition with the medical profession and render services both surgical and medical at prices below those usual in private practice. The insurance companies covering Workmen's Compensation have not been slow to realize this fact and have profited to the extent of millions of dollars at the expense of the medical profession. The hospitals encourage this profitable practice and will not relinquish it without a bitter fight.

Why does the medical profession tolerate this condition of constantly mounting free service? Why is it so generous in its donation of time and skill as though neither were of much consequence? Why have doctors assumed the responsibility for medical care of the indigent and those professing indigency when to society at large belongs this responsibility? Why do doctors permit themselves to be exploited by hospitals, corporations, lay groups, the state, and even the federal government?

There are at least 2 explanations: A reluctance to modify hallowed medical tradition, and a lack of unity among doctors. As to medical tradition, for 2300 years tradition has decreed that the medical profession shall treat the poor without compensation other than the knowledge of a deed well done. The doctor's generosity and vast sympathy for the sick individual and his seemingly unlimited pity for the poor and helpless has caused the public to place him on a pedestal and consider him not quite as other men. The true physician represents all the highest ideals of Christianity, but like other men he must live and pay his bills and endeavor to provide for the future of his family.

With changing times come changing conditions. Where for centuries hospitals and clinics were pitifully few and places to be avoided, there is now an oversupply. Whereas the old family doctor of revered memory determined for himself who should be recipients of his medical charity, the doctor of today is contributing his medical largess, generously aided by laymen most of whom derive their livelihood thereby. The business of organized medical charity and charity in general has become so vast that the direction and operation of this work are considered rather in the light of a profession by those laymen so concerned. The only ones who do not profit to some degree financially are the most essential ones, the doctors. The public, too, has become health conscious and seeks to take out of the hands of those best qualified the direction of health measures and institutions dedicated to such work. Lay boards direct and dictate the policies of hospitals and clinics and de-

mand of the doctor the donation of his medical service, which is his only means of livelihood. Should he protest he is informed that he can resign from the staff if he is not satisfied with conditions and the policy of the institution. Apparently we are willing or have been willing to suffer humiliation as well as exploitation of our generosity and sympathy so that we may uphold the ancient tradition of free service to the poor.

The second reason for our failure to combat these evils is the lack of unity among doctors. There seems to be a jealous pride in his own independence which prevents the physician from giving whole-hearted and full coöperation in matters vital to the profession economically. We hold divergent views and fear public reaction to any refusal to go along with the trend. Only a bold and unjust attack from without our ranks, such as the Majority Report of the Committee on the Costs of Medical Care, can arouse us to present a somewhat united front. We should really feel grateful to that body for its unintentional service to the medical profession.

As a group we cheerfully approve policies; then we exercise our individual discretion in its application to ourselves. This has been demonstrated here in our own county society where 3 important measures designed to improve economic conditions have languished and failed because, as individuals, we have not given our full coöperation, although when these policies were presented for approval, not one dissenting vote was registered; *viz.*, the Medical Credit Bureau, the Diphtheria Immunization Campaign, and the effort to have the hospitals refer compensation cases to the private practitioner. The first failed because many doctors, having joined the Credit Bureau, did not report their delinquent patients and did not avail themselves of the services afforded. The result is that the deadbeat continues to victimize the doctors.

The second measure failed though a large number of children were immunized against diphtheria. It was impossible to get a complete report from participating doctors showing the exact number immunized. This made it impossible to demonstrate to the Pennsylvania Department of Health and various agencies clamoring for this work that we had done the job well enough to warrant their withdrawal from the field.

The third measure failed because hospitals, desiring to test our plan, sent a few compensation cases from the dispensary to doctors' offices only to have them return with the terse statement that this type of work was not desired. It is unfortunate that the doctor did not refer these cases to some one who did do this work rather than jeopardize the plans of the society by sending them back to the dispensary. The comments just made show how difficult it is to induce a large number of physicians to abide by the will of the majority and carry on any policy to a satisfactory conclusion when even so small a group as our county society does not show a spirit to do so.

Any plan to render medical services must be sufficiently comprehensive to include retention of the desirable features of the public health agencies. Their elimination cannot be considered but their sphere of activity should be limited to public health work to the truly indigent.

Two procedures are tenable: To acknowledge frankly the inability of the medical profession to carry the burden of free service to the masses, especially in institutions; or to accept the principle of health insurance. The former suggestion would place the full responsibility for the indigent sick upon society at large rather

than upon our profession. We need not blush at such a course. Already the state and federal governments have recognized and acknowledged this responsibility by the creation of Medical Emergency Relief which, though right in principle, has been faulty in application. Organized medicine, too, has acknowledged the justice of this point of view by active participation and by accepting fees from the government for medical services to those unable to pay. Only the allocation of insufficient funds to medical relief and the application of too stringent and nonflexible rules has caused dissatisfaction and the feeling that we have been hoodwinked. Although a considerable sum of money has been paid for medical bills, it must be admitted that, in proportion to the services rendered, the pay has been pitifully inadequate. The fault could be corrected and the measure permanently adopted to the advantage of the patients and the doctors. It should, however, include compensation for medical care within as well as without the hospital and clinic. The cost to the state and nation would be tremendous, but the burden of cost can be borne better by 123,000,000 people than by 142,000 doctors. Probably some form of taxation would be necessary to provide funds as is done for free public education. Surely public health merits as much consideration as does public education. Such a plan, though entirely feasible, is not likely to be consummated in the near future as there are too many obstacles to be overcome. The State would probably hesitate to impose additional taxes and the public would surely object to being taxed to obtain something it is now accustomed to receive free. In the light of past experience the hospitals hardly could be depended upon to support any measure advantageous to the medical profession. This attitude was shown during the last session of the New York Assembly, when a bill known as the Crawford bill was introduced which imposed a fine on any hospital, supported by public or private contribution, accepting money from patients in a free dispensary. It was defeated as was another bill which provided that persons able to walk and seeking free medical treatment must apply to a central registration bureau where their claims for charity could be investigated. A lobby maintained by the hospitals caused defeat of both bills.

A similar recommendation for such a central bureau of investigation made by the Dauphin County Society to the 2 Harrisburg hospitals met with the flat refusal of one and a noncommittal attitude on the part of the other.

What plan would be advantageous to all concerned with the care of the indigent sick as well as those of moderate means to whom the cost of illness is of serious concern? Though Dr. Lawson may be accused of heresy, he is forced to the conclusion that some form of health insurance is the answer. Why object to mass health insurance? It need not constitute so-called state medicine if it is properly formulated and executed by those most familiar with the problems of the sick; namely, the physicians. Because there have been errors made and faults discovered in this measure in other countries, need the plan be rejected? Would it not be better to take advantage of the experience on the part of other nations and, realizing that both the public and the medical profession can be benefited, evolve a satisfactory plan? Whether or not we agree with President Roosevelt in general, we can agree with his declaration made Nov. 14, 1934, when he said, "There is also the problem of economic loss due to sickness, a very serious matter for many families with and without incomes, and therefore an unfair burden upon the medical pro-

fession. Whether we come to this form of insurance sooner or later, a plan can be devised which will enhance and not hinder the remarkable progress which has been made and is being made in the profession of medicine in the United States."

What other scheme will remove a large proportion of the 500,000 daily receiving free treatment in dispensaries and send them back to the doctors' offices as pay patients? How else can a part of that 35 per cent who are private patients but not pay patients be made to pay the doctor? How else can the hospitals be relieved of the cost of caring for the hoard of free patients? By what other means can the self-respect of the masses be restored? It would seem the better part of wisdom for the medical profession to coöperate in planning health insurance than forever to hold up the bogey of state medicine and cry, "Wolf!"

If organized medicine would study the problem from a purely American standpoint and be prepared to offer a plan that is workable and satisfactory to the sick man and to the doctor, permitting the politician and the social worker to worry over how it is to be financed, we would be getting somewhere.

Something radical must be done to divert the ever-increasing stream of free patients from the public institutions and send them back to their own doctors. While more patients are treated free each day than pay for medical service in the United States, the outlook for medicine is unfortunate.

Lest his early remarks regarding medical tradition and doctors be misunderstood, Dr. Lawson said that he would not detract one jot from the honor and glory of the medical profession, but would see its course tempered to the times and its future safeguarded.

Dr. Lawson's address was very enthusiastically received.

The Committee on Arrangements of the Dauphin County Medical Society is working valiantly to prepare for the next convention of the State Society to be held at Harrisburg, Sept. 30 to Oct. 3, 1935.

SAMUEL B. FLUKE, *Reporter.*

DELAWARE

Jan. 10, 1935

The annual meeting was held at 3:35 p. m., President Ezra A. Whitney presiding.

Three members were elected and 1 member was accepted by transfer.

The following officers were elected: John S. Eynon, president; John J. Sweeney, first vice-president; Albin Rozploch, second vice-president; and, Albin Rozploch, secretary-treasurer.

John Eynon, the newly elected president, stressed the need for more active discussions of the scientific papers, particularly on the part of the younger members of the society, and urged the members to increase their interest in the social and cultural life of the county.

The president welcomed the members of the Woman's Auxiliary to the meeting. R. Tait McKenzie, Philadelphia, the guest speaker, gave an address on "The Scottish Memorial."

Dr. McKenzie said in part: He is a horrible example of a physician who has permitted his hobby to run away with him. Every physician should have outside activities and hobbies as they add a great deal, and tend to create a balance in his life. Shortly after he graduated from medical school he became an instructor in anatomy and examined students who were candidates

for athletic endeavors. A little later he began with clay modeling to portray difficult facial expressions, grimaces, *etc.* His first general interest in this line was in the expressions of the athlete during strenuous physical exertions. This hobby became more and more a life work with him and later he found it of great value in his war work.

At the conclusion of the World War he had to make a definite decision as to whether he would continue in general practice or accept the demands made by his sculptural work. He eventually decided to give up general practice and continue his work at the University of Pennsylvania along with his hobby of sculpture. Almost immediately he received requests for work from Altmont, Canada, where he was born; Woodbury, N. J.; Cambridge, England; Girard College, Philadelphia; and then the suggestion of the Scottish Memorial was made.

Dr. McKenzie prefaced his remarks on the Scottish Memorial with a brief history of the Cameron Clan and its leader. A great-grandson of the famous leader of 1745 was instrumental in organizing a Scottish regiment of the Seaforth Highlanders in the World War. He was wounded severely in the first engagement in 1915. Later he visited America and was entertained by the Saint Andrews Society of Philadelphia. At a luncheon meeting of this society the first thought of such a memorial was advanced. A committee was organized in this country and in Scotland. The Scottish committee was aided by the Duke of Athol and Field Marshall Haig. The site for the memorial was selected in 1924 at the time when the shrine to the Scottish soldiers was being dedicated in Edinburgh in the Princess Street Gardens.

He spoke at length of the minuteness of the details which had to be worked out in order to achieve the proper results, not only with regard to the central figure but also with regard to those portrayed in the bas relief of the frieze background. Models were taken to Scotland and exhibited before the actual piece was finished. The work was completed and taken to Scotland in June, 1927. There it was set up in such a way that the figure looked out and up in the direction of Edinburgh Castle. It was dedicated Sept. 7, 1927, with the American Ambassador, Mr. Houghten, officiating. Three hundred especially invited guests were present. The Dean of Saint Guilds had charge of the special service.

The frieze in the background shows a pipe band of 12 pipers, 2 tenor drums, 4 side drums and 1 bass drum, leading recruits for the army. The recruits reveal Scotland in all walks of life. On the base of the frieze is engraved a quotation from the pen of Lieutenant MacIntosh of the Seaforth Highlanders: "If it be life that waits, I shall live forever unconquered—if death, I shall die at last strong in my pride and free."

This inemorial has been taken to the very heart of the Scottish people in a truly wonderful way. It forms a bond between the people of Scotland and the Scottish people of America. Every year since 1931 special services have been held at the memorial on Sept. 7, with a guest speaker, frequently from America, for the occasion.

Dr. McKenzie told how many people have felt that they recognized the model for the central figure but he explained that it represents not one individual but a composite picture of the average Highlander of the World War.

Dr. McKenzie was made an honorary member of the Delaware County Medical Society.

The annual dinner was given in honor of the new president, John Eynon, of Chester. The Woman's Auxiliary were guests of the county society at the dinner.

E. A. WHITNEY, *Reporter*.

DELAWARE (EASTERN BRANCH)

Jan. 22, 1935

Charles Mazer, Philadelphia, gave a talk on "Clinical Use of the Endocrines." The use of the hormones has fallen into disrepute for 3 reasons: Incorrect diagnosis; inert products; and inadequate dosage. The price factor is being lowered.

Ovarian hormone: Two are known—the follicular and the corpus luteum.

Follicular hormone: In cases of severe menopausal syndrome in which there are heat flashes, chills, sweats, insomnia, palpitation, fatigue, irritability and melancholia, and also involutional insanity, large doses are indicated. Five thousand to 10,000 rat units may be given every fourth day for a period of 2 to 3 weeks. As symptoms improve the dose is gradually reduced, until the patient is either taking a very small dose or none at all. The medication is administered hypodermically and not orally, as the dose orally is usually 5 times that required hypodermically.

Gonococcal vaginitis: Three hundred rat units given every second day will usually cure obstinate cases in 6 to 8 weeks. The cure is effected by a cornification of the vaginal mucous membrane. At the end of the treatments the discharge persists, but is pus free and free from organisms. After treatments have been discontinued the white discharge ceases.

Amenorrhea: In a few cases where the uterus is small and hard, the ovarian function normal, benefit will follow the use of the follicular hormone, not exceeding 50 to 80 rat units. Some cases require anterior pituitary and thyroid hormones. Roentgen ray in small doses over the pituitary and ovarian regions is beneficial.

Migraine: In cases related to the menstrual flow about 25 per cent are improved. Requires large dosage of follicular hormone.

Painful nodular breast: This condition occurring in the young or those before reaching the menopause respond to small doses of follicular hormone, 600 rat units every third day for a month.

Bleeding from the nipple: Where there is no mass palpable the bleeding is arrested in from 4 to 6 weeks. Statistics prove that only 1 per cent of nipple bleeders develop carcinoma.

Corpus luteum hormone: Not available for commercial use at present time. Experimentally, cases of habitual abortion without apparent cause respond to 1 rabbit unit every second day until the fetus is viable.

Pituitary hormone: Obtained from the anterior lobe. Stimulates ovarian function, and in fact is the sole control of ovarian function. This hormone is hard to obtain and is limited for this reason. Anterior pituitary-like hormone is effective in functional uterine bleeding in those of child-bearing age. About 70 per cent of the cases respond to doses of 200 units every second day. Cases of pituitary deficiency respond better to minute doses of roentgen ray over the anterior lobe of the pituitary.

Insulin: Women in the early twenties, blonde, fair skin, underweight, mentally alert, either a clerk or young mother, varying degree of painful amenorrhea, dyspareunia, abdominal pain, gastro-intestinal spasticity,

abdominal ptosis, pain in epigastrium, insomnia and nervous symptoms; in such cases the prolonged use of insulin improves the condition. Patients take on weight which overcomes ptosis and nervous symptoms. The dose is usually 10 to 15 units before breakfast and supper for a period of 3 to 5 months.

Parathyroid hormone: This hormone maintains normal blood calcium. Minus function of parathyroids results in minus calcium ratio going on to tetany. No hormone has been found to counteract the hyperfunctioning parathyroids.

In discussion W. Benson Harer compared the endocrine system to a huge jig saw puzzle. Referred to the cost of the different preparations marketed, and advised that before treatment is started, the patient should know the cost and time factors involved. In cases of gonococcal vaginitis, cleanliness and mild antiseptics are more valuable than hormones. He has wondered if the use of hormones in children produce any permanent ill effects later in life.

When amenorrhea is treated by hormones resulting in the production of bleeding, the bleeding is only a doubtful sign, as ovulation is the principal function, not usually affected by hormone therapy. Roentgen-ray therapy is of value in a small number of cases. Migraine patients have responded in exceptionally few cases. E. L. Noone asked about the treatment of children with undescended testicles. Also the latest reports on thymus gland therapy. R. E. Lee Gowan asked about pluriglandular therapy by mouth. Theodore Lidle asked concerning treatment other than insulin in primary dysmenorrhea.

In closing the discussion Dr. Mazer stressed the uniformly good results obtained in gonococcal vaginitis with follicular hormone as compared with the questionable results obtained with other methods. From tests made on the adult, he considers no harm is produced in children by the hormone therapy. Many poor results in migraine cases treated by endocrine therapy are due to different interpretations of symptoms and appropriate treatment. He has not treated any males with undescended testicles; but laboratory experiments proved that in the rat and rabbit, testes could be made to descend earlier than normal by hormone therapy.

He spoke of the work of Dr. Leonard G. Rowntree in relation to thymus gland therapy, and stated that the animal treated showed no changes but that the offspring of the treated animal showed signs of giantism. All of this work is experimental at present. Dr. Mazer does not favor pluriglandular therapy by mouth. In some conditions, for example, of disease of the suprarenal glands, the cortex of the gland can be given by mouth with benefit. Thyroid gland can be given by mouth successfully. However, in most conditions there is a syndrome present in which many glands are involved, but in reality usually the pituitary is at fault and should be treated singly. AUGUSTUS H. CLAGETT, *Secretary*.

ERIE

Jan. 3, 1935

The meeting was held in Hamot Hospital Auditorium in Erie; Frank B. Krimmel presided. Arthur G. Davis, of Erie, was installed as president. Norbert D. Gannon was reelected secretary for the fifth year, as was Merle Russell, treasurer.

The retiring president, Frank B. Krimmel, read a paper on "Acute Empyema." He reviewed present-day methods of diagnosis and treatment, adapting them to

local practices and personal experience in this disease; 107 cases occurring during the past 4 years were outlined.

The ultimate results of therapy, no matter what the type of treatment, seem to depend more on the severity of the causative factor. The mortality curve of empyema follows the mortality curve of pneumonia in the district.

Acute empyema, not a primary disease, is usually secondary to pneumonia, lung abscess or lung neoplasm, trauma or a pyema. Infection occurs by direct contamination, by direct spread from infected tissue or, rarely, by blood stream. The collection of pus usually selects a dependent position, although encapsulation may occur.

The pneumococcus is the etiologic organism in 50 per cent of the cases, the percentage being higher in children. If, after the temperature has returned to normal a small collection develops within an area of pleural thickening, the course is usually more benign with the lowest mortality. Streptococcic empyema usually begins earlier, and is associated with a less viscous fluid; the relative mortality is higher.

The pathology of empyema differs from that of any other endothelial cavity in one respect only. The negative pressure present tends to keep the cavity walls apart, delaying healing through failure of collapse of the walls.

The symptoms are usually those of the primary disease plus the presence of pus in the pleural cavity, the insidious cases usually complicating lobar pneumonia, the abrupt ones bronchopneumonia, often as early as the third day.

The symptoms will suggest purulent infection and fluid in the chest. Aspiration will establish the diagnosis; adequate roentgenologic examination will aid greatly in localizing the collection, especially when encapsulated.

In reviewing treatment, attention was called to the enthusiasm manifested by each school of thought. The underlying pathology of the disease and the underlying physiology of the lungs and pleura must be constantly kept in mind in each case of empyema. Think always of the entire chest as a single cavity, with the mediastinum rather as a freely displaceable structure than as a mechanical barrier. The negative pleural pressure keeps the lungs normally on the stretch. Open pneumothorax with its threat of comparative dyspnea and shock must always be guarded against in the therapy of empyema.

Harrington in 1931 listed 5 cardinal principles: Adequate drainage; avoidance of early open pneumothorax; rapid sterilization of the diseased area; early obliteration of the cavity by expansion of the lung; and good general medical care.

The requirement for drainage will vary with the individual case, depending on the organism, extent, and acuteness. Reexpansion and limitation of pneumothorax are well handled by closed drainage. A diet including at least 3000 calories and abundant fluids is indicated.

Drainage may be accomplished by repeated aspiration with or without rib resection, or by closed aspiration drainage. Rib resection alone has its advocates, giving as it does better visibility of the area and allowing better irrigation.

RALPH BACON, *Reporter.*

LACKAWANNA

Dec. 4, 1934

The meeting was held at Scranton; President Walter W. Propst presided. Ashley W. Oughterson, associate

professor of surgery at the School of Medicine of Yale University, read a paper on "The Surgical Treatment of Tuberculosis." The speaker said in part:

The subject may be discussed under 5 general headings: Artificial pneumothorax; phrenic nerve operations; thoracoplasty; apicolysis; and combinations of these procedures. In collapse therapy, the 2 dominant features are rest and the release of tension. Artificial pneumothorax may be unilateral, bilateral or contralateral. The indications for such a procedure are: Moderately advanced cases prior to destructive lesions and adhesions; early in rapidly progressive disease, particularly when there is hemoptysis, spontaneous pneumothorax or pleurisy. Bed rest and general medical care is the basis of all therapy in tuberculosis; other treatments must be, of necessity, secondary.

During acute pleurisy, artificial pneumothorax is of considerable value in maintaining a free pleural space. At the Winchester Hospital which treats moderately advanced cases, some type of collapse therapy is used in 20 per cent of all cases. Of this group, pneumothorax was used alone in 40 per cent; adhesions were already present in 40 per cent and there was no pleural space present in 20 per cent. In the cases with adhesions, intrapleural pneumolysis was performed, using the Jacobus operation by preference, with either the cautery or electrosurgical technic.

The phrenic nerve operation is the most widely employed method, other than pneumothorax. Several different procedures have been advocated: Simple cutting; evulsion of the nerve (exeresis); crushing; and alcohol injections. O'Brien, of Detroit, has recently reported 3000 cases with definite improvement. This method gives startlingly good results in many cases, but is being used somewhat less than formerly. It is probably of greatest value when combined with thoracoplasty. Apicolysis has many advocates—filling the intrapleural space with fat, muscle, a bag, or with paraffin (plumbage). The cavity wall may be rigid and frequently fails to collapse, and if too much pressure is employed, the cavity may rupture.

Fluid develops in 50 per cent of all cases with artificial pneumothorax. It does not make a great deal of difference and is not a cause for alarm. In most cases, tubercle bacilli may be recovered from this fluid and 1 per cent may develop a tuberculous empyema.

In many cases it is necessary to combine all known methods of treatment in order to fit the local disease that the patient presents. When thoracoplasty has been decided upon, the decision must follow a careful determination of the area to be closed, by outlining the cavity with lipiodol. Contraindications to this operation are: Old age, diabetes, nephritis, pregnancy, bilateral renal disease, ossification, laryngeal and joint tuberculosis, cardiac decompensation and coronary disease. The procedure is becoming more and more radical, but the mortality should be zero in carefully selected cases. In his last 100 operations, the speaker's operative mortality has been zero. The medical service has pushed the surgical service to conservatism, and on the other hand, the patients are placed in wonderful condition by medical treatment before any operation is planned. During the operation of thoracoplasty, speed should not be a requisite, the operation generally taking 1½ to 2 hours. Avertin is used with local anesthesia of novocain and is supplemented with nitrous oxide and oxygen. Silk is used throughout. Drainage is never employed, because of the inevitable infection which follows.

In closing the discussion Dr. Oughterson said that pneumothorax is being done earlier and earlier. More

and more patients are being carried along for a period of years by artificial pneumothorax with refills. Patients are most coöperative under this régime and return regularly. They have had over 5000 such cases on his service. Oleothorax with sterile mineral oil is used in cases in which positive pressure will not allow control. In large cavities, a considerable amount of oil would be necessary, about a gallon. Patients are not comfortable with such treatment. The lung does not reëxpand as well after oil as after air.

Dec. 18, 1934

The meeting was in charge of President Walter W. Propst. The guest speaker was Willard H. Kinney, Philadelphia, associate professor of urology, Jefferson Medical College, who gave an address on "Recent Advances in the Study and Treatment of Genito-Urinary Lesions." He said in part:

Urology must embrace general medicine first, but it has its own narrowing field of increasing importance.

The 2 most important additions to diagnosis in urology have been the roentgen ray and the cystoscope. They are absolutely indispensable preoperatively and have immeasurably lowered the operative mortality. The laboratory has offered much to urology. Blood chemistry, blood counts, agglutination studies, urinalyses and the Wassermann's reaction have been of definite aid in diagnosis. Renal function should always be carefully studied: Dye elimination; intake and output; and water balance of the diet. Ability to excrete normally is of utmost importance and one should remember that failure of elimination does not result in immediate edema. Three-fourths of the renal tissue must be diseased or removed before there is a rise in the non-protein nitrogen (N. P. N.) of the blood. An N. P. N. test over 100 mg. per cent indicates a serious condition, if it cannot be changed by dietary methods. Obstruction may also result in high blood nitrogen values. The best diagnostic test is the "urea clearance." When the urea clearance falls to 5 per cent, uremia occurs. Phthalein excretion is normal until the urea clearance falls to 60 per cent. Creatinine excretion is also generally diagnostic. A rise above 500 mg. per cent means a bad prognosis. A high creatinine estimate is also seen in obstruction and is lowered soon after the relief of the obstruction. A single determination is of no value; repeated blood chemistry tests must be made in order that changes may be followed.

In acute nephritis, high nitrogen values mean nothing, unless they are combined with renal function tests and urinary concentration studies. A cardiovascular check-up should always be made.

Prior to cystoscopy, all patients should have a roentgen-ray flat plate of the abdomen. Pyelography should be done under the fluoroscope in order to avoid injecting the opaque media under pressure until the patient complains of pain. Intravenous urography must not and cannot replace cystoscopy and ureteral catheterization, except where the latter is impossible or contraindicated. Its primary value is as a test of function. Anatomic delineation is faulty. Prognosis depends upon such studies of functional activity. The cystogram gives a fair picture of prostatic involvement, diverticulæ and new growths. One or more roentgenograms should be made after the bladder is empty.

Urinary tuberculosis is more often bilateral than is suspected. The lesions are often symptomless and healed-in. During the past 10 years, much progress has been made in diagnosis in children. Juvenile urology will be a definite entity in the near future.

Chronic prostatitis may originate as : Hematogenous; urogenous; or lymphogenous, from the lower bowel. Treatment must be directed toward elimination of this infection, and by nonforceful means. Local treatment with massage and irrigations is important. Autogenous vaccines are of some value. In the hypertrophied prostate, electrosurgery has offered and made possible one of the most popular of present-day operations. The study and preparation of the patient are of the utmost importance. Transurethral resection should be limited to fibrosis, drainage in malignancy, median bar, and median lobe hypertrophy.

Treatment of tumors of the bladder still depends upon an early diagnosis. Any chronic hematuria immediately should be investigated by cystoscopy. Radiology has great possibilities.

Endocrine therapy and its influence on genito-urinary disease has aroused universal interest. The treatment of nonsurgical descent of the testes by use of antuitrin-S has been quite successful in 60 per cent of a group of cases at the Jefferson Hospital. However, in some, atrophy of the testicle may follow and the treatment is never successful in adults. No increase in the size of the male organs follows the use of antuitrin-S, as is generally the case following operation.

The trend in the treatment of gonorrhea leads more and more to conservatism. The early use of irritants results in stricture. No massage and plenty of fluids with sedatives give the best results in the acute stages. Protein injections build up resistance, but vaccines have no value. The treatment of syphilis by a combination of series of bismuth and arsenical injections, alternating and overlapping, has received common acceptance as the most satisfactory régime. In late syphilis, there are poor results with arsenicals, and mercury and the iodides once more come to the fore.

As Christmas and New Year's Day both occurred on the usual meeting day of the Lackawanna County Medical Society, there were no sessions held from Dec. 18 to Jan. 8.

FREDERIC B. DAVIES, *Reporter.*

LANCASTER

Jan. 2, 1935

The meeting of the Lancaster County and City Medical Society was held in the Medical Club Rooms. Joseph V. Klauder, Philadelphia, gave an illustrated address on "Some Common Skin Diseases. Their Diagnosis and Treatment." He said in part:

Pityriasis rosea. This condition presents a generalized eruption more pronounced on the trunk, assuming the so-called bathing suit distribution. It follows the lines of cleavage of the skin, and has a chamois-like color. It is preceded from a few days to a few weeks by a herald patch, which usually occurs above the waist. The scales tend to be free near the center, and to preserve a peripheral attachment. The rash has a predilection for opposing surfaces, and rarely is seen on the face and neck, forearms or legs below the knees. The herald patch simulates ringworm. Usually there is no itching. The disease runs a self-limited course of 3 to 4 weeks, and treatment is directed to the skin irritation. For this soothing lotions are good, and soap should be omitted. Alpine lamp treatment is helpful.

Psoriasis. The cause of this disease is still unknown, although it seems to center around the respiration of the cell. For this reason it is usually better in the summer, in fact many cases disappear entirely during the sunshine months. The sulphur metabolism appears

to be upset in many cases, and for this reason liver extract is used in the treatment. Chrysarobin is useful in all but the acute stages, but should never be used at that time. The strength should not exceed 3 per cent; the National Formulary preparation is too strong. Ointments incorporating salicylic acid and cade oil are also helpful. Foreign protein injections may be used, employing sterile milk or the patient's own blood.

Scabies. The typical rash is seen on the fingers and toes, and about the nipples in women and on the glans penis in men. It is also seen on the extensor surfaces of the wrists, in the axillæ and groin.

Occasionally it appears on the face in babies. The main symptom of itching, which is worse at night, is what usually brings the patient to the doctor. The diagnosis is clinched when the organism is found in the skin. Twelve per cent sulphur ointment is used, but not for more than 4 applications; otherwise the condition will be complicated by a dermatitis from the medication. Boiling of all linens is essential after each application of the ointment.

Impetigo. This is a superficial disease which presents moist oozing surfaces with crust formation. The crusts are less conspicuous in adults. Three to 4 per cent ammoniated mercury ointment is useful, but in many cases a mildly antiseptic ointment is preferable, because of the danger of poisoning from mercury. In infants the disease is serious, the staphylococcus and streptococcus, which are the causative organisms, becoming more virulent and frequently causing death. In infants the disease is often not of the classic form, but presents bright red areas of erosion, with loose tags of epidermis, resembling a first-degree burn. Use of mercury in these cases is not indicated.

Ringworm. When seen on the scalp ringworm shows roughly circular areas from which the hair has fallen, or in which the hair is easily removed, leaving partly bald spots. The condition cures spontaneously in children, probably because of the change in the PH. values with growth. The organism requires an alkaline blood reaction. Ringworm on the scalp is best treated by an agent which will remove the hair, but caution must be used in the application of such agents, as the roentgen ray, for this purpose. Thallium acetate given internally also is hazardous although it will depilate the scalp. Ringworm of the smooth skin appears as discoid patches with sharp borders and scaly surface. In the presence of such a lesion search always should be made for a focus on the toes, since 25 to 30 per cent of all people have ringworm at this site. It is manifested by vesicles or scaly areas on the soles and sides of the feet.

The lesions between the toes will be macerated. The organism can be recovered from the tops of the vesicles and occasionally from the scales. The lesions sometimes simulate eczema, but they are usually free from any other sign of inflammation than redness, and are much more superficial. Ringworm of the palm must be differentiated from eczema or a syphilide. If bilateral, it is rarely a syphilide; syphilitic lesions show more induration as a rule, and are seldom of a moist character.

In acute ringworm, compresses of potassium permanganate 1:4000 are good. Later 3 per cent salicylic acid in alcohol during the day with Whitfield's ointment at night can be used. Most cases will recur if treatment is stopped early. It is well to apply the alcohol mixture daily for 2 to 3 weeks every few months even if there are no symptoms. Woolen socks and rubber soles are contraindicated. The toenails should be brushed and cleaned with great care. Boric acid

powder between the toes is helpful. When lesions appear on the opposing surfaces, it is well to apply sodium hyposulphite 12 per cent. Tincture of iodine, sulphur, mercury, or a 1 per cent chrysarobin ointment are also used for the scalp ringworm.

Eczema. In children more can be done with local applications than with anything else, although the general condition of the child must be taken into consideration and the food regulated. Eczema is either caused by an external irritant or by some internal cause. Mild ointments of bismuth, zinc, or boric acid are helpful, or a weak resorcinol compound may be used. It is wise to avoid soap and water. Increase the calcium intake, give cod liver oil, and use the Alpine lamp.

When caused by external agents it is called dermatitis venenata, and is best treated by removal of the irritant if possible. Common causes are the rhus toxicodendron, and the primrose. Suspect contact dermatitis when exposed surfaces of the skin are suddenly affected. Correct any abnormality present, allay irritability and give sleep with bromides, *etc.*, order an alkaline diet and omit animal protein. Give calcium by mouth or vein.

Sunlight therapy and cod-liver oil are helpful, as is occasionally foreign protein therapy. Compresses and evaporating lotions are used in the acute stages. Olive oil and lime water emulsion are good. Use 2 per cent salicylic ointments in dry stages. The vegetable tars are useful in the chronic stages. Use cade oil in 3 per cent mixture, and not pix liquida in the official strength of 12 per cent, because it will be too irritating. Crude coal tar is helpful in all stages.

WILHELMINA S. SCOTT, *Reporter.*

LUZERNE

Dec. 5, 1934

The meeting was held in the Medical Building, Wilkes-Barre; President E. W. Bixby presiding.

Charles Long, Philadelphia, gave an address, supplemented by lantern slides on, "The Practical Value of Biliary Drainage." He said in part:

Any procedure will have merit if it proves of value therapeutically and if it is an aid in diagnosis. The procedure of biliary drainage originated in Philadelphia and is of distinct value if it is used in the proper way. It may aid and clinch a diagnosis but it will not supplant a careful history and physical examination. Its promiscuous use may prove disastrous to the patient.

The requirements for the procedure are: Three hours' time; proper placing of the tube in the tip of the duodenum and not in the stomach; 33 per cent of magnesium sulphate; olive oil and peptone solutions as stimulants; macro- and microscopic examination of the materials obtained.

If an operation on the gallbladder is necessary it should be performed in preference to multiple drainages. If it is not possible for a patient to submit to one, or the physician thinks the danger too great, the patient can be made comfortable by the drainages.

There are 4 types of material received in the drainage: (1) Thirty c.c. of clear golden yellow material from the duodenum; and (2, 3, 4,) which are varying shades of mahogany-colored liquid received after the use of the previously mentioned stimulants. The common duct yields a golden yellow colored content. By the dye tests Lyon and Swalm say the mahogany bile or B bile comes from the gallbladder. In the normal individual 30 to 60 c.c. of concentrated bile are present

and 275 to 350 c.c. of unconcentrated bile. If there are over 60 c.c. of bile from a test it indicates a sluggish gallbladder. If less than 60 c.c. it indicates either an absence of the gallbladder, the gallbladder is blocked, or there is spasm of the cystic duct.

Microscopic examination of the contents of the bottles is of value. The low power lens is the best. The organized sediment consists of crystals and pigment, cellular elements, food, and occasional parasites. Cholesterol crystals are strongly suggestive of gall stones. The cellular elements are also important. Dirty drainage is the term used in describing the material which contains mucous spirals with brown bile salts, with pools of oleaginous material. It indicates a catarrh of the cystic duct. Therapeutic drainage will clear this condition.

Drainage is of aid in spastic dysfunction and early cholecystitis; in chronic cholecystitis it is of little value unless the patient is considered an operative risk; it has its place in preoperative and postoperative care; and drainage makes a patient a better operative risk.

Dec. 19, 1934

The meeting was held in the Medical Building, Wilkes-Barre; President E. W. Bixby presided. The following officers were elected: President, Joseph P. Dougherty; vice-president, Vivian P. Edwards; recording secretary, Irving Thomas; financial secretary, John J. McHugh; censor for 3 years, Clarence W. Prevost; director for 3 years, Thomas R. Gagon; editor and librarian, Lewis T. Buckman; reporter, Marjorie E. Reed.

The scientific meeting was held jointly with the Luzerne County Society. An address, supplemented by lantern slides, was delivered by Lawrence Curtis of Philadelphia, on "Swellings in and around the Mouth," of interest to the general practitioner and the dentist. He said in part:

Swelling at the angle of the jaw often occurs which is not painful, hence the patient does not consult anyone. Abscess of the parotid gland may occur. Treatment of cysts consists of a horizontal incision through the skin and, by dissection, removal of the contents and the sac to prevent its recurring. A semisolid mass, elastic and nonpainful, is apt to be a mixed tumor of the parotid gland. A swelling on the cheek in children, which is soft and fluctuating, with no discoloration of the face, and of recent duration, may be a congenital hemangioma or a tumor with blood from a recent injury. Treatment consists of roentgen ray, dissection and ligation of the vessels. A swelling of the cheek which comes from within and is painless, is hard and firm, with the skin unattached to the mass, and roentgen ray shows the bone to be honey-combed, is a multilocular cyst of dental origin; a radical operation with dissection of the jaw is necessary.

Swellings in the neck were discussed. If a congenital swelling exists beneath the lobe of the ear, and is painless and fluctuating, a branchial cyst is to be considered. Often a fistula is beneath the chin and a thyroglossal cyst or fistula is present. The treatment is removal. Inject the tract with methylene blue and remove the cyst.

A painful swelling in the submaxillary triangle, which is getting larger, with pain upon eating, is connected with the submaxillary gland. If the mouth is opened wide one finds that the swelling has nothing to do with the teeth; roentgen ray usually shows calculi in the duct which are removed by incision over the duct.

Swelling below the ear with complete trismus is a

cellulitis and roentgen ray shows abscess of teeth and an osteomyelitis. The treatment is the same as in any osteomyelitis.

A frequent lesion is one on the tongue which is hard, firm, painless, dirty white, with no induration about the edges. It is leukoplakia and comes from smoking excessively, using a pipe especially. Do not use medicines such as silver nitrate but watch the area and inhibit smoking. These are often seen on the cheek as well. Do a biopsy to exclude malignancy.

A swelling in the floor of the mouth which pushes up the tongue, the mucous membrane of which is bluish, accompanied by pain, is a ranula. It has no connection with the submaxillary gland or duct. There may be a swelling under the chin which is connected with the sublingual gland. Treatment is the same as for other cysts—incision, evacuation of the contents and dissection of the sac.

Swellings on the dorsum of the tongue which are painless are hemangiomas. The vessels may be ligated, or they can be let alone.

Hypertrophy of the gums frequently is seen. It is due to the presence of tartar, dirt and filth with very poor care of the teeth. Correcting the mouth hygiene is essential.

Hard, dense tissue, a generalized fibromatosis of the gums, requires removal of all the teeth with removal of the fibrous tissue.

A marginal fibroma originates in the dental periosteum, and is pedunculated; extraction of neighboring teeth and curetting the sockets are needed.

Another type of swelling of the gum which is painless, has the egg-shell crackle, and if one pushes hard enough a hole will be made into the maxilla, is a cyst containing a permanent tooth. Excision and dissection are required.

Swellings of the palate, which are covered with mucous membrane and do not fluctuate, are mucous cysts. They develop anywhere in the mouth.

Frequently a mass is seen in the midline of the palate which is found in normal persons and is a bony elevation. This can be let alone unless it becomes large or ulcerated.

In discussion, Dr. Gibby asked if Dr. Curtis treats hemangioma with radium. The reply was yes, and especially in large ones which cannot be excised.

Jan. 2, 1935

The meeting was held in the Medical Building, Wilkes-Barre; the new president, Dr. Dougherty, presided. A. G. Gibbs, Nanticoke, gave a talk on "Treatment of Gynecologic Conditions Seen in Office Practice." He said in part:

He could not give anything new but wished to review the treatment of some of the many conditions seen in the office.

The prerequisites are (1) a careful history, and (2) a pelvic examination, using a good light, and a bivalve speculum for inspection of the vagina and cervix. A cervical smear is important.

Trichomonas Vaginalis. This protozoan infection of the vagina and adjacent structures is characterized by a thin, yellowish foamy discharge, which is irritating and may have a disagreeable odor. The mucous membrane is irritated and the patient may complain of great discomfort. The diagnosis is made by a "hanging drop" microscopic examination. The treatment is divided into 2 groups: Dry and moist. Gellhorn of St. Louis reports good results with stovarsol, which is insufflated into the vagina by means of a vaginal powder

blower. This is repeated every second or third day for 5 or 6 treatments, then observed a few weeks as to results. The moist treatment as advocated by Mortimer N. Hyams of the New York Post-Graduate Medical School is as follows: At each visit a "hanging drop" test is made. The external genitalia and vagina are scrubbed with tincture of green soap, allowing this to dry. A douche of 1:4000 solution of oxycyanide of mercury is given through a 2-way vaginal douche nozzle. Five to 10 c.c. picric acid 1 per cent in glycerine are instilled into the vagina and the vagina packed with 3 yards of 2-inch gauze bandage to be removed by the patient in 24 hours. Douches are used daily and these treatments are given 3 times a week. (*Trichomonas vaginalis* is rebellious to all forms of treatment. The technic of the various forms of treatment must be followed in detail; to be acquired from textbooks and medical journals. The details of treatment vary in extent.—Editor.)

Gonorrhea. The diagnosis must be established by smear, culture or complement fixation. Clinically, there are 3 groups—acute, subacute, and chronic.

In the acute stage, absolute rest in bed with sedatives to control pain and dysuria are necessary. Local cleansing of the external genitalia with mild antiseptics is needed. With a profuse discharge, mild low-pressure douches are permissible. Stronger solutions, topical applications to the cervix or vagina, as well as alcohol, coitus, and exercise in any form, predispose to extension of the infection.

In from 2 to 6 weeks the acuteness subsides, the discharge lessens, and pain disappears. In this or the subacute stage more heat may be applied by the Elliot machine or medical diathermy, or prolonged hot douches. Treatment of the cervix and vagina is given 3 times weekly until negative smears and cultures are obtained.

The chronic stage is manifested by the persistence of the infection in the cervix, Skene's glands or Bartholin's glands. Sometimes, the gonococcus is responsible for the continuation of the infection but often it has been replaced by a mixed infection.

The Eroded Cervix. The erosions are transplantations of columnar cells from the cervical canal onto the squamous epithelium of the external cervix. This is proved by the application of iodine upon the erosions. The columnar cells will not stain while the squamous cells will be stained brown. The aim is to destroy the infected columnar epithelium and replace it with the squamous cells. The best method is conization with the high frequency current. They may be treated with electrocoagulation. Dr. Endy devised an instrument which embodies 2 electrodes of the same size in one instrument. Some prefer the actual cautery, applying it in strip fashion, doing one lip and in 3 weeks the other lip.

Nabothian cysts are opened, drained and destroyed with the fine nasal tip cautery.

Skene's glands are situated at the end of the urethra and frequently harbor pus and gonococci. Prolonged treatment by injection with silver preparations often fails to cure. Obliteration often is necessary. This is done by the use of the cautery set at dull red.

Bartholinitis. If rest, ice bags or cold applications fail to cause resolution, pus forms which must be evacuated. Free incision in a vertical line is made, and packed with gauze, or preferably excision of the gland. Another method is puncturing the abscess with the diathermy needle electrode.

Condylomata of the vulva are soft and numerous.

Remove with a spoon curet and touch the bases with trichloroacetic acid. Advise cleansing with antiseptic solution and dust with iodoform, calomel or aristol powder. Surgical diathermy is of great value in the treatment.

Senile Vaginitis. The mucous membrane is thin, congested, inflamed and often eroded. Pure crude pyroligneous acid is used in the vagina 3 times weekly and daily douches of one tablet of the acid to one quart of water.

Transuterine Tubal Insufflation. Wipe dry the cervix and paint with iodine. Insert a flexible cannula through the internal os and produce pressure on the instrument so that the rubber shoulder fits snugly against the external os. The rubber bulb is compressed, forcing air into the uterine cavity. If pressure rises normally to between 50 and 80 mm. and then recedes or stays thereabouts while more pressure is made on the bulb, it indicates a patulous tube. If the pressure continues to rise it indicates an occluded tube. It is unwise to permit registration above 160 mm. Dr. Samuel Meeker, Boston, reported 17 pregnancies resulting from therapeutic insufflation.

Retrodismplacement of the Uterus. If bimanual replacement is successful, insert Hodge or Smith pessary. If there is extreme relaxation an operation is advised.

Urethral and intravesical treatment, irradiation, and organotherapy are useful procedures. Every procedure that will reduce the incidence of pelvic operations, preserve the childbearing function and contribute to woman's domestic tranquillity is worthy of mention.

MARJORIE E. REED, *Reporter.*

MONTOUR

Dec. 21, 1934

The meeting was held at the Geisinger Hospital, at 8:30 p.m.; President Lester P. Fowle presided.

Benjamin Snyder and Joseph R. Bierman were elected to membership.

Applications for membership were received from Walter W. Hammond, Jr., and Michael J. Pescor, both of the United States Public Health Service attached to the Northeastern Federal Penitentiary.

The following officers were elected: President, Henry F. Hunt; first vice-president, Harry C. Brown; second vice-president, H. Arden Kimmel; secretary, Sydney J. Hawley; treasurer, Edward B. Shellenberger; reporter, H. Arden Kimmel; censor for 3 years, Carl E. Ervin; and editor, H. Arden Kimmel.

President Lester P. Fowle then presented the Presidential Address, "Physical Agents in Dermatology."

HENRY F. HUNT, *Reporter.*

NORTHAMPTON

Dec. 24, 1934

The meeting was held at the Easton Hospital. Dr. Richards presided.

Harvey O. Rohrbach reported that there is considerable lack of coöperation in the work of examining the children of the community. Only about one-third of those scheduled have been examined. Some physicians merely sign the papers without even examining the children. Such a procedure is not only useless so far as the welfare of the child is concerned but is downright dishonest.

Edwin D. Schnabel was elected to affiliate member-

ship. Stephen E. Murray and Lee Schiffer of Easton were elected to membership.

Joseph C. Doane, medical director, Jewish Hospital, Philadelphia, and associate professor of medicine, Temple University Medical School, read a paper on "The Nervous Woman." This type of person is the perennial visitor at hospital outpatient departments and goes from one doctor's office to another. She requires understanding and a peculiar type of sympathy and treatment.

Disease without demonstrable pathology is very important and undoubtedly exists, for people suffer and die from conditions that produce no pathologic findings at necropsy. Functional disease cannot be dismissed with the statement "neuro," or as neurasthenia or psycho-asthenia.

The controller of the vital functions of life is the autonomic nervous system. This consists of the parasympathetic and the sympathetic systems, which are mutually antagonistic. At one time it was thought that all persons could be classified as belonging to 2 groups, those whose activities are dominated chiefly by sympathetic system action, and those dominated by parasympathetic action. It is now known that this classification cannot be applied rigorously, but there are undoubtedly many persons with autonomic imbalance. The influence of emotion on such patients is marked.

In studying these patients one should look at them as a whole rather than focus much time and attention on one part of their anatomy. The threshold has been lowered so that they are conscious of certain activities of their organs which do not reach the consciousness of a normal individual.

A recently published report from the Mayo Clinic has a bearing on this general topic. In 85 per cent of the 285 cases studied no organic ailments were found, yet 289 surgical operations had been performed on these patients. As a general rule surgical operations do not relieve patients of this type.

In order to treat them intelligently one must know all about their general family situations. Relief may be afforded with calcium, which depresses vagotonic activity. Phenobarbital and sodium bromide may be used to lull the patient's sensitivity to the rough things of life. Make sure that the symptoms are not due to organic causes, then treat these patients long and sympathetically. Be sure to give them enough time at the first visit to convince them that the treatment will be thorough.

F. J. PEARSON, *Reporter.*

PHILADELPHIA

Jan. 9, 1935

The meeting constituted Johns Hopkins Hospital Night. A paper, "Zonal Alterations of the Liver Cells with Reference to Hepatic Function," was read by Arnold Rice Rich, associate professor of pathology. He described the variations in the liver cells in laboratory animals under different conditions, and showed the possible way in which pathologic studies might be able to clarify involved clinical manifestations of hepatic disease. Utilizing the fact that the cells of one zone of the liver only can be subject to zonal alteration, he correlated the difference in the activity of the cells of different zones with the apparent similarity of morphology. The marked zonal differences in structure in the presence of pathologic conditions cannot be regarded as incidental. A chemical poison is known to destroy only certain cells in a lobule, thus justifying the contention that the structure of one cell must be dif-

ferent from that of adjacent cells. Chloroform, for instance, enters the periphery of the lobe and passes out by way of the central vein. The peripheral cells are not influenced by it, but the central cells are all killed outright. Other substances will destroy the central cells, leaving the peripheral cells intact. A number of slides were shown to illustrate the selective action of a variety of toxic substances. These studies upon the lower animals presage new and important information relating to hepatic function in man. The sharply limited zonal accumulation of metabolic products confirms the assumption that there must be pronounced differences in the hepatic zonular cells, although these may be differences in degree rather than in type of metabolism. One type of zonal alteration is particularly noteworthy. In certain types of jaundice the bile pigment is made outside of the hepatic epithelial cells. Jaundice may be considered as of 2 groups. In one group, the jaundice is caused by a rupture of the bile trabecule due to the death of the liver cells which form its structure. Laboratory tests of the bile pigment in the blood cells and urine establish the diagnosis. In the second group, there is no possible mechanical explanation of the jaundice. Its connection with variations in biliary formation then comes in for consideration. More bile pigment is being made than the liver apparently can excrete. The reserve excretory power of the normal liver is so great that this is disposed of, but when a similar performance is required of a liver with reduced excretory power, it fails and jaundice may result. The jaundice of anemia therefore may be due to zonal alteration of the liver cells with atrophy of the central cells. The entire paper was devoted to a demonstration of the intensive study of the anatomy of zonal alteration as a means of providing a better understanding of functional liver disturbances.

"Hepatic Necrosis and Cirrhosis with Some References to Chemical Substances as Occasional Etiologic Factors," was discussed by Warfield T. Longcope, professor of medicine. He stated that Mallory divided cirrhosis into 5 classes—alcoholic, syphilitic, pigmentary, infectious, and toxic. A great deal of attention has been paid to all these classes except toxic cirrhosis. This last is no doubt very common, if we would only recognize it properly. There are a long series of chemicals which produce a more or less extensive necrosis of the liver. Aside from these chemicals, other toxic substances will produce much the same thing; for instance, yellow fever and probably epidemic jaundice. The previous speaker mentioned a number of conditions under which degeneration or injury of the liver cells may occur. Anoxemia may exaggerate jaundice. Toxin is an important one. It is also important to refer again to the matter which Dr. Rich mentioned, that is, the degree of intensity of necrosis of the liver under several factors. Dr. Lamson (of Johns Hopkins) and his coworker have shown that carbon tetrachloride is much accentuated by alcohol.

In order to illustrate some points in this condition he cited briefly a few histories of patients.

Case I. A man, age 60, admitted to hospital August, 1926, complaining of stomach trouble and yellow skin. Former history negative. Ten days before admission had nausea and vomiting. Three days later became jaundiced. Had considerable abdominal pain and loss of weight. Death from acute necrosis of the liver, cause of which was obscure.

Case II. Gave a similar history, but the cause was totally different. White male, age 46, was admitted to hospital January, 1933. Jaundice and weakness, 2½

weeks. Moderate use of alcohol for 5 years, drank very heavily for 1 or 2 years. Jaundice, swelling of abdomen, diarrhea. No spider angioma. Anemia (not an uncommon symptom in obstructive diseases of the liver). Tapped; 20 liters of fluid removed. After repeated tapping there was a certain amount of improvement. Quite comfortable and returned home for 2 months, when he was readmitted with exactly the same symptoms. Spleen enlarged, liver not enlarged. Operation decided upon. Subsequent improvement, some anemia, very slight jaundice, but has a fairly advanced cirrhosis of the liver.

Case III. White male, very heavy drinker. Six years previous to admission to hospital had 2 acute attacks of gallbladder colic. Just before admission had severe attack of abdominal pain. Admitted with jaundice, spider angioma, large palpable liver and spleen, obvious cirrhosis of liver. Grew rapidly worse and died in coma. Necropsy showed advanced cirrhosis of liver with considerable area of necrosis throughout. Jaundice in cases of cirrhosis of liver is attributed to acute necrosis of liver.

It is supposed that calcium detoxifies. It is used in large amounts in cases of necrosis of the liver.

Poindexter and Greene have reported a typical case of cirrhosis of the liver in a man who had been exposed to the fumes of carbon tetrachloride over a long period of time (a cleaner). Other cases of toxic cirrhosis have occurred in men using carbon tetrachloride as a cleaner. In 1929 Wright reported 47 cases of toxic necrosis, with 10 deaths, and described a definite form of cirrhosis which occurred in his cases. Some consider that this particular form of necrosis has characteristics of its own, but he cannot confirm this opinion from personal observations. He cannot see that it has a different character. Within the last year they have seen and had under observation 117 cases of toxic necrosis, with 61 deaths. The mortality is very high.

Arsphenamine jaundice is very common. It is important to know how often permanent injury to the liver or acute necrosis follows arsphenamine jaundice. Cirrhosis was present in at least one of these cases at necropsy.

From these rather scattered remarks he thinks there are many chemicals that may lead to a poison characterized by hepatic necrosis. The necrosis may be mild and unmarked by any unusual aspect, or it may be more severe and intensive.

It is important to realize that the severity and extent of the necrosis may be modified in various ways. From the fact that alcohol intensifies the action of some poisons, he would suggest that perhaps in what is termed an alcoholic cirrhosis of the liver most of the damage is not really done by the alcohol itself, but by some chemical toxin, some unknown toxin whose action is intensified to a remarkable degree by alcohol. This must be considered in the etiology of cirrhosis of the liver in the future. The various secret-formula proprietary remedies may be contributing to the increasing incidence of these toxic liver necrosis conditions.

"The Surgery of the Liver and Bile Passages," was given by Dean DeWitt Lewis, professor of surgery. His opening remarks served to stress his preference for cholecystectomy as an operation in this much discussed field. From this point he proceeded to analyze the subject of biliary surgery and pathology. One of the main functions of the gallbladder is to act as an overflow reservoir, regulating the pressure. The liver does not produce bile continuously, but at certain rhythmical times bile is poured forth. Experimentally, the outflow

of bile varies considerably. A large quantity indicates a closed belly. The oscillating pressure is regulated perfectly through the natural functioning of the gallbladder. A constant pressure on the common duct is thus secured. The patient whose gallbladder does not function properly usually feels the symptom of an unpleasant sensation in the region of the liver. Nausea, and a temporary enlargement of the liver are also indicated. An unregulated increase in biliary pressure has a much greater effect in latent hepatitis. Such attacks of hepatitis are often seen in recurrent cases. The flare-up becomes more frequent after operation. We must therefore conclude that a hepatitis is aggravated by cholecystectomy. The gallbladder acts as an organ protecting the liver, and after the gallbladder is removed, the tendency to spasm of the sphincter is increased. There is not much doubt that most of the difficulty comes after operation. In regard to residual symptoms, they are usually due to the nonrecognition of stones in the common duct, or at least the presence of the peculiar granular or black bile which occurs so often. After cholecystectomy, a secondary operation will reveal small stones, or granular black bile which has been unrecognized. These changes occur so frequently in the common duct that it should be made a definite operative procedure in bad cases to open and explore the common duct, and remove substances, where these changes have occurred. In cases where the duct is explored at operation, better results are obtained than when the gallbladder is removed and the duct is left alone. In cases where there are minimal changes, the symptoms are often very indefinite. It is generally admitted that the removal of a gallbladder which does not contain stones is followed in a high percentage of cases by disappointing results. Cholecystectomy should not be performed before the changes are well marked. Many conditions are found with gallbladder disease, particularly with the less severe forms of cholecystitis.

Among the most common of these conditions are diseases of the spine, chronic constipation, disease of the right urinary tract, and duodenal ulcer. Removal of the gallbladder does not relieve the patient's symptoms in the above cases. The most successful operations are those performed in advanced stages. Calculi implies an advanced pathologic change. The typical biliary colic is an advanced feature. There seems to be little justification for submitting to operation a patient with only the early manifestations of cholecystitis. Symptoms other than pain are much less likely to disappear after operation than is the pain, unless changes in the organ are definitely marked. There is still a great deal to discuss as to what should be done in acute gallbladder conditions. Even surgeons working in the same hospital differ as to whether operation should be attempted, and as to whether a conservative operation should be performed, or cholecystectomy. No hard and fast rule can be laid down; the surgeon does what he thinks best for the individual patient. Smith calls attention to the fact that the patient with acute cholecystitis should not be operated upon immediately, but the surgeon should be ready for prompt operative intervention if necessary. It is wiser to wait if possible for the acute attack to pass off. The diagnosis of jaundice is always difficult. In a diagnosis of malignancy, operate in all cases. Calcium chloride is given to anemic patients before operation. An abundance of fluid should be given if there is dehydration. Preoperative treatment and care diminish the chance of hemorrhage. In quite a number of cases, hemorrhage is apt to occur when the jaundice is disappearing.

One type of case occurs in which difficulty is met, the case of so-called "liver death." Causes of death after operation on the biliary tract are peritonitis, pneumonia, embolism, renal failure, shock and hemorrhage. Some cases have a striking history. In some of these cases it is not apparent that the cause is explained by ceasing of the liver function. So many cases have been reported in the past few years that surgeons are now directing their attention to these so-called liver deaths.

Pancreatitis is one of the most serious complications of gallbladder disease. It has been said that only surgical interference should be considered. The few cases which he remembered most vividly are those which were not treated surgically during acute attacks. One patient had symptoms of suppurative peritonitis. Local anesthesia was used for operation. That patient had fat necrosis. The patient subsequently recovered. He had all the symptoms of acute pancreatitis and fat necrosis. In operations upon the biliary tract, due to carcinoma of the head of the pancreas the only operation to be considered is cholecystogastrostomy. Some think it should be performed in 2 stages, first draining the gallbladder, then making the communication between the gallbladder and the stomach. The risk of hemorrhage is not great in such cases. One bad feature is the injury to the duct. It does not make much difference whether the gallbladder is removed from above downward, or from below upward. The main thing is to know the anatomy perfectly, and have the structure perfectly in mind before removal. This is the best prophylactic procedure in removing the gallbladder.

Gallbladder surgery is only 52 years old. It has passed through many stages and is now back to the stage where some think that changes associated with the common duct after removal of the gallbladder give rise to residual symptoms. He believes, however, that more of the difficulties in gallbladder surgery arise from failure to explore the common duct or to recognize the alteration in common ducts where stones are present that should be removed. He is certain that blocks following an operation on bile passages are due to failure to make anatomic exposure and reduction.

SAMUEL HORTON BROWN, *Reporter*.

WARREN

Jan. 21, 1935

The annual meeting was held in Warren with 21 present. The following officers were elected: President, Wm. M. Cashman, Warren; first vice-president, William H. Shortt, Youngsville; second vice-president, Robert B. Mervine, Sheffield; secretary and treasurer, Hamblen C. Eaton, Warren.

Charles G. Strickland of Erie, representing the State Committee on Maternal Welfare, gave an outline of what the committee is attempting to do in the endeavor to reduce maternal mortality. He quoted statistics which seemed to indicate that the less operative interference the lower the death rate and that some authorities believe there is too much interference with the natural processes. He urged the appointment of a committee for the county to investigate carefully every death reported so as to obtain accurate data which might be used to lessen a condition which seems out of proportion with other health measures.

J. Theodore Valone, Robert B. Mervine, and Ralph Knapp were appointed to the Committee on Maternal Mortality.

Dinner was served.

M. V. BALL, *Reporter*.

WYOMING

Jan. 9, 1935

The meeting was held in Tunkhannock with luncheon.

The present officers are to be retained with the exception of the president, Van C. Decker of Nicholson replacing William B. Beaumont of Laceyville.

R. L. Hamilton of the Robert Packer Hospital, Sayre, gave a talk on the "Diagnosis and Treatment of Lobar Pneumonia," stressing the early use of serum, especially in Types I and II.

ARTHUR B. DAVENPORT, *Reporter*.

YORK

Dec. 15, 1934

President James F. Wood was in the chair.

Matthew S. Ersner, professor of otology, Temple University Medical School, Philadelphia, spoke on "Otorhinologic Problems as They Concern the General Practitioner." He said in part:

Nose: Its functions are olfaction, respiration, posture, and audition; also filtration, heating of air, moistening of air, intake, and output. Its changes to barometric pressure and its protective mechanism through ciliated epithelium, especially in the paranasal sinus were given. Ciliated cells have motility and shrink. Erectile tissue of nose and its function were discussed.

The turbinates and septum adapt themselves mechanically to atmospheric pressure and temperature. Each day 1000 c.c. of water are used in the nasal mucous membrane to warm and moisten the air; from 1 to 3 pounds of saliva and nasal mucus is secreted in 24 hours. The sinus is a normal structure, and the anatomy must be understood before treatment medically, dietetically, or surgically can be carried out. Some sinuses are symptomless.

A complete history is important. Recurring colds, sneezing, lacrimation, color of discharge and information as to whether it is associated with a cough or wheeze are important symptoms. Normal mucous membrane and its appearance were stressed. The septum should be examined for such conditions as occur in allergy, hay fever, and vasomotor rhinitis.

Mention was made of the appearance of mucous membrane in acute congestive conditions and in acute recurring conditions, and the extremely red mucous membrane in dietetic disturbances or in cases in which there is chronic disease such as diabetes or over-acidity. The hypertrophic type was mentioned as were also the post-nasal discharge from ethmoids, frontals, or maxillaries; the granular pharyngitis due to irritation from lymphoid inflammation and the pathologic condition producing this; and the atrophic type with nasal discharge, cough, and hoarseness. Many bronchial cases must be treated first by proper therapy of the upper respiratory tract. The general symptoms of atrophic rhinitis and its complications were mentioned.

EAR: Eczema, cellulitis of the external auditory canal, perichondritis or hematoma, and aspergilliosis in chronic discharging ears were discussed. The difference between the child's and the adult's external auditory canal was detailed. The appearance of the normal ear drum and the various types of ear drums were outlined. A child must be in a sitting position to discover fluid in the middle ear. He warned against opening the ear drum too early and advised coöperation, good light, and good anesthesia.

The healing of the drum takes place by fibro-connec-

tive tissue. Multiple perforations mean tuberculosis of the ear. A discharging ear often signifies upper respiratory tract trouble, and there may be associated gastrointestinal symptoms. Mastoiditis also may be associated.

The 3 cardinal tender points in mastoiditis were given. The value of the blood count in mastoiditis with especial emphasis on the disappearance of the immature cells was stressed.

In discussion, C. L. Fackler, York, referred to blood transfusion in sinus thrombosis and the method of giving

immunized donors' blood. He asked if all fungus infections disappear under salicylic acid and alcohol, the discussor in several cases using cresatin.

Dr. Ersner, in closing, stated that 2 c.c. of blood to the pound were used in transfusions of children. More specific transfusions (by immunizing with 50 bacteria per injection) were discussed. The appearance of the patient with sinus thrombosis who will get well was mentioned.

H. MALCOLM READ, *Reporter*.

The Woman's Auxiliary to The Medical Society of the State of Pennsylvania

MRS. GEORGE C. YEAGER, *Editor*, 1419 E. Susquehanna Ave., Philadelphia, Pa.

COUNTY AUXILIARY REPORTS

Allegheny.—On Nov. 27, in the Blue Room of the William Penn Hotel, 92 members of the auxiliary enjoyed a radio program.

Dr. H. G. Schleiter spoke on "Good Health from the Community Standpoint," and Dr. Samuel R. Haythorn spoke on "Half Truths and Modern Medical Trends." This talk dealt with 3 much discussed subjects—health insurance, birth control, and sterilization.

The program was followed by tea.

Bucks.—At the November meeting the ladies had dinner with the doctors after which the auxiliary was entertained at the home of the president, Mrs. Herbert T. Crough, where a Health Day program was conducted. The speaker, Mrs. John B. Chambers, of Newtown, talked on "Trends in Public Health." Representatives from Woman's Clubs, the Red Cross, hospital superintendents, school nurses, and members of other organizations were present, a number of whom gave 5-minute talks. Tea was served.

Dues for 1935 are payable, \$1.50 per capita. Kindly send to Mrs. H. C. Grim, secretary-treasurer.

Delaware.—The auxiliary met at the Elwyn Training School in Elwyn, Dec. 13, at 8:30 p. m., with Mrs. E. A. Whitney, president, in the chair. It was decided to send cards instead of flowers to sick members, and use the flower money for baskets for the poor at Christmas time. Plans were made for the disbursement of 4 baskets of food.

The speaker of the evening was Dr. Bertha Harmon who gave a lecture on "The Psychology of Clothes." She said that the public expected a great deal from doctors' wives and that we should take great care to live up to these expectations. Mentally, physically, and spiritually we should always be fit, and in general appearance we should be presentable at any time of the day. There are a number of types of personalities, and in selecting clothes we should be careful to choose the style and colors which best express our personality.

Refreshments were served.

On Dec. 21, the members of the Board held a luncheon meeting at the home of Mrs. Richard Owen of Prospect Park.

Erie.—The auxiliary met Dec. 3. Jellies, peanut butter, and toys were gathered to be donated to the Municip-

pal Hospital as this institution is not favored by any special organization aid. Each member was asked to donate to the Christmas baskets to be distributed during the holiday season. Members cooperated in the sale of Christmas seals, many of them donating their services for a half day or more. Sewing was done for Hamot Hospital. Tea was served.

Mrs. Palmer Treadway entertained at her home for this meeting.

Fayette.—The officers of the auxiliary for 1934-5 are: President, Mrs. M. H. Cloud; vice-president, Mrs. S. A. Baltz; recording secretary, Mrs. Max Harris; corresponding secretary, Mrs. Alexander Duff; treasurer, Mrs. Ralph Beatty; president-elect, Mrs. Hugh Ralston.

A rummage sale was held the second week in November, and the proceeds given to the Eye Fund. Out of this 16 pairs of glasses were given to needy children. The auxiliary purchased a Health Bond from the Fayette County Tuberculosis Society.

Three talks were given at the regular monthly meetings by the following: Dr. Heuber, former pathologist at the Uniontown Hospital, on "Race and Disease," Mr. Andrew Kovacs on "My Impressions of Hungary," and Dr. C. Franklin Smith on "Hair Dye and Cosmetics."

A large card party will be held some time in February for the benefit of the Eye Fund. Three new members have recently joined the auxiliary.

Indiana.—The auxiliary held its Christmas meeting at the College Inn, Indiana, on Dec. 13, at 2:00 p. m.

Each member was asked to bring a ten cent gift, in Christmas wrapping, suitable for another member of the auxiliary.

Lackawanna.—On Oct. 27 a bridge tea was held for the benefit of the society's Medical Benevolence Fund at the home of Mrs. Mervyn M. Williams, with 170 present.

Mrs. Laurrie D. Sargent, of Washington, president of the State Auxiliary, was guest of honor at a bridge luncheon, Nov. 26, at the Century Club. Mrs. Sargent spoke on the Tugwell bill, public relations, parent-teachers' work, public health work, the Medical Benevolence Fund, the health program, and the membership drive.

A brief silent tribute was paid to the memory of the late Mrs. C. F. Frey and a contribution in her memory was made to the Benevolence Fund.

At the regular monthly meeting held Dec. 11, at the Chamber of Commerce Building, Scranton, a nominating Committee was appointed.

Lebanon.—The meeting* was held Dec. 10 at the Lebanon Country Club in the form of a Christmas party. Luncheon was served. Mrs. E. B. Marshall, president, presided. Mrs. Marshall has been president of the auxiliary since its organization in 1925 and was presented with a contribution as a Christmas gift.

Five new members have been admitted recently.

A contribution was made to the visiting nurse association.

A bouquet of flowers was presented to Lebanon County's oldest physician, Dr. Wm. Guilford, on his 102d birthday anniversary.

A committee was appointed to make arrangements for a Health Day program in the near future. It was also decided to observe a Reciprocity Day meeting in the early spring. A social session followed.

Lycoming.—The meeting was held at the Woman's Club, Dec. 14, preceded by the customary luncheon.

The following officers were elected to serve for 1935: President, Mrs. James H. Burrows; first vice-president, Mrs. John A. Campbell; second vice-president, Mrs. P. H. Decker; third vice-president, Mrs. Galen D. Castlebury; recording secretary, Mrs. Ross K. Childerhose; corresponding secretary, Mrs. Isidore DiSalvo; treasurer, Mrs. Archibald M. Cook; directors, Mrs. C. W. Youngman, Mrs. C. F. Seaton, Mrs. T. Marshall West, and Mrs. Frederick Sanford.

The annual dance was held Dec. 26 at the Lycoming Hotel and was largely attended.

Mercer.—The meeting was held at Buhl Hospital, Sharon, Dec. 19, 1934, at which time the Christmas Party was held, with 38 present. Cards were played. One renewal to *Hygeia* was reported and one new member elected.

Santa Claus presented each member with an appropriate gift. The gifts were later distributed among the children in the hospital.

Mrs. Carl H. Bailey was presented with a gift in appreciation of services given the auxiliary as president during the first year of its existence.

The physicians and auxiliary members attended a dinner served in the Nurses' Home, at the conclusion of which Dr. Edith MacBride-Dexter, recently appointed State Secretary of Health, was presented with flowers from the Mercer County Medical Society, of which Dr. MacBride-Dexter is a member.

Dr. F. P. Phillips, chairman of the State Emergency Child Health Committee of Venango County, detailed the procedures used in that county. Dr. W. Blair Mosser, of Kane, gave an illustrated talk on "Thyroid."

Montgomery.—The auxiliary held its meeting at the Nurses' Home, Dec. 5, at 2:30 p. m., Mrs. H. B. Shearer presiding.

Mrs. W. J. Wright, chairman of public relations, reported 24 new *Hygeia* subscriptions.

Motion pictures were shown in which every member was featured.

Each member purchased a "White Elephant" package, and the proceeds were given to the Children's Aid Society. Refreshments were served.

Northampton.—The meeting was held Dec. 12 at Harker's Hollow Golf Club. Luncheon was served. The following officers were elected: Mrs. Carl Welden, Bethlehem, president; Mrs. E. S. Rosenberry, Stone Church, vice-president, Mrs. J. Edward Brown, Heller-

town, secretary; Mrs. R. E. Heacock, Bethlehem, treasurer.

A committee composed of past presidents was appointed to revise the by-laws. Bridge was played.

Schuylkill.—The meeting was held in the Necho Allan Hotel, Pottsville, Dec. 11, the president, Mrs. Rosa Santee, presiding. This was the first active meeting of this auxiliary which was organized in September, 1934.

Twenty-five members were present. Each member donated gifts for children in the wards of the 7 hospitals of the county. These gifts were distributed the day before Christmas.

A musical program was rendered, followed by tea.

Medical News

Births

TO DR. AND MRS. DAVID E. HEMINGTON, Pittsburgh, a daughter, Jan. 13.

Engagements

MISS DOROTHY SEIPLE, of Harrisburg, and Dr. Bruce N. Wolff, associate surgeon at the Annie M. Warner Hospital, Gettysburg.

MISS CAROLINE CAMPBELL, daughter of the late Dr. John A. Campbell, of Williamsport, and Frederick Parker Frantz, of New York City.

Marriage

MISS MARIE CECILIA ROWAN to Dr. L. J. Salansky, of New Castle, Nov. 17, in Dahlgren Chapel, Georgetown University. Dr. Salansky has had his name legally changed to L. J. Salans, and is now located at 5047 Conduit Road, Washington, D. C.

Deaths

RAY MCKELVEY ALEXANDER, Bolivar; University of Pittsburgh School of Medicine, 1905; member of his county and State medical societies and a Fellow of the A. M. A.; during the World War served as a first lieutenant in the Medical Corps of the U. S. Army, being stationed in Hawaii; medical examiner on the Workman's Compensation Board during the administration of Gov. John S. Fisher; aged 55; Dec. 25, at the St. Francis Hospital, Pittsburgh, from a heart attack. His wife and one daughter survive.

SAMUEL E. AMBROSE, Rural Valley; Baltimore Medical College, Maryland, 1898; member of his county and State medical societies and a Fellow of the A. M. A.; aged 70; Jan. 4, of myocarditis and chronic nephritis.

KATE WYLIE BALDWIN, Lawrenceville, N. J.; Woman's Medical College of Pennsylvania, 1890, died at Lawrenceville, N. J., Jan. 18. Dr. Baldwin maintained offices in Philadelphia, was on the general surgical staff of the Woman's Medical College Hospital and the Woman's Hospital of Philadelphia. It is stated that she was the first woman intern in a Philadelphia hospital. A member of her county and State medical societies; Fellow of the A. M. A.; Fellow of the American College of Surgeons; and, a member of the American Academy of Ophthalmology and Oto-Laryngology.

CLAUDE WELLINGTON BATDORF, Harrisburg; University of Pennsylvania School of Medicine, 1911; member of his county and State medical societies; specialized in eye, ear, and throat diseases, and was a chief surgeon on the Polyclinic Hospital staff; aged 47; Jan. 21, following a stroke. He is survived by his sister and one son.

A. STRYKER BLAIR, Hallstead; New York University Medical College, 1882; member of his county and

State medical societies and a Fellow of the A. M. A.; aged 77; Oct. 10.

IRVING CYRUS BLAISDELL, Wilmore; Bellevue Hospital Medical College, New York, 1871; former member of Cambria County Medical Society; aged 90; Dec. 12.

TODD R. BODEN, McIntyre (Indiana County); Jefferson Medical College, 1910; aged 55; Dec. 24, of a self-inflicted bullet wound. Dr. Boden was born in Armstrong County, Aug. 31, 1879; attended Elders Ridge Academy, took 2 years in medicine at the University of Pittsburgh and completed his course in medicine at Jefferson Medical College. For a short time he was associated with the Rochester and Pittsburgh Coal Company at Ernest and from then until the time of his death practiced in the Jacksonville-McIntyre district. He was a member of his county and State medical societies and a Fellow of the A. M. A.

GEORGE ANSON CRISTLER, Hookstown; Western Pennsylvania Medical College, Pittsburgh, 1889; formerly member of the school board; aged 82; Nov. 27, of arteriosclerosis.

JOHN T. DEEMAR, Kittanning; Jefferson Medical College, 1879; member of his county and State medical societies and a Fellow of the A. M. A.; aged 80; Dec. 13.

KATHERINE WELLER DEWEY, Pittsburgh; Rush Medical College, Chicago, 1912; associate professor of clinical pathology, University of Pittsburgh School of Dentistry; formerly assistant in obstetrics and gynecology and fellow in pathology at her alma mater; at one time research assistant in the department of histology and oral pathology, and assistant professor of oral pathology, University of Illinois College of Dentistry, Chicago; associate editor of the *Journal of Dental Research* and co-author of a textbook called *Pathology of the Mouth*; aged 66; Nov. 11, in Bad Nauheim, Germany, of carcinoma of the stomach.

CEPHAS T. DODD, Washington; Western Reserve University Medical Department, Cleveland, 1881; member of his county and State medical societies and a Fellow of the A. M. A.; past president of the Washington County Medical Society; aged 80; Oct. 28.

VALENTINE HUMMEL FAGER, Harrisburg; University of Pennsylvania School of Medicine, 1892; member of his county and State medical societies and a Fellow of the A. M. A.; aged 68; Dec. 22, from cardiac disease.

FAY XAVIER FIELD, Wellsboro; Medico-Chirurgical College of Philadelphia, 1916; former member of his county and State medical societies and a Fellow of the A. M. A.; served during the World War; aged 43; Nov. 29, of acute myocarditis.

MR. MATTHEW O. FOLEY, Downer's Grove, Ill., died Jan. 4, of heart disease, aged 44. Mr. Foley was the efficient editor of *Hospital Management* for 15 years. He was the organizer of National Hospital Day, celebrated May 12. He was an indefatigable worker in the hospital field. He is survived by a widow and 10 children.

KAGAMI FUJINAMI, Kyoto, Japan, Nov. 18, aged 64.

SAMUEL A. GINSBURG, Philadelphia; Baltimore University School of Medicine, Maryland, 1903; member of his county and State medical societies; aged 58; Nov. 15.

JAMES W. HANLEY, aged 15, son of Dr. Paul D. Hanley, Pottstown, was killed in an automobile accident near Pottstown, Jan. 25.

WILHELM HIS, Berlin, Germany, Nov. 13.

MR. ALBA B. JOHNSON, of Philadelphia, a leader in Philadelphia industrial and civic life, died Jan. 8, aged 76. At the time of his death Mr. Johnson was intensively active in many fields of endeavor, more especially

as president of the Board of Trustees of the Jefferson Medical College and Hospital. He was probably best known as president of the Baldwin Locomotive Works, which position he occupied from 1911 to 1919.

ROBERT EMMETT JONES, Philadelphia; University of Michigan Medical School, Ann Arbor, 1881; aged 74; Dec. 8, of cerebral embolism.

JOHN NEWHALL KIRK, Easton; Medical College of Ohio, Cincinnati, 1895; aged 61; Dec. 3, of heart disease.

BAYARD KNERR, Philadelphia; Hahnemann Medical College of Philadelphia, 1898; from a self-inflicted bullet wound, Jan. 9; aged 59. For many years he was a member of the surgical staff at St. Luke's Children's Homeopathic Hospital. He is survived by his widow.

MRS. H. B. KOBLER, wife of Dr. Henry B. Kobler, of Philadelphia, Jan. 3.

JOSEPH CLEMENT KOCHCZYNSKI, Hazleton; Medico-Chirurgical College of Philadelphia, 1913; member of his county and State medical societies and a Fellow of the A. M. A.; served during the World War; aged 49; Dec. 1, of acute hyperthyroidism.

MRS. CAROLINE KRAEMER, Wilmington, Del., wife of Dr. William H. Kraemer, director of the Tumor Clinic, Jefferson Hospital, Philadelphia. Mrs. Kraemer was a passenger on the *Mohawk*, en route to Mexico, which sank at sea Jan. 24. Her sea-battered body was found near the scene of the disaster. Dr. Kraemer landed in England the same day. He had planned to make a tour of the leading cancer clinics of Europe.

GEORGE MORLEY MARSHALL, Philadelphia; University of Pennsylvania Medical School, 1886; aged 76; died at his home from heart disease Jan. 8. Dr. Marshall was born in Painesville, O. He attended Western Reserve University previous to coming to Philadelphia. Upon graduation in medicine he was appointed an intern in St. Joseph's Hospital, Philadelphia, and subsequently served on the medical and throat and nose staffs of this institution for a number of years. He was a member of his county and State medical societies and a Fellow of the A. M. A.; a member of the Sydenham Coteri of Philadelphia; the Medical Club of Philadelphia; and a Fellow of the American College of Surgeons. He was also a former associate professor of laryngology at the Graduate School of Medicine, University of Pennsylvania. Dr. Marshall is survived by his wife, 4 daughters, and a son.

CHARLES LINCOLN MOHN, Jersey Shore; College of Physicians and Surgeons, Baltimore, Md., 1885; member of his county and State medical societies; associated with the Jersey Shore Hospital; surgeon for the New York Central Railroad Company for 20 years; aged 70; Dec. 19, of heart disease. He is survived by his wife, a daughter, and a son.

JOHN P. MULRENAN, Philadelphia; University of Pennsylvania Medical School, 1897; aged 64; died Jan. 5, at his home, of heart disease. Dr. Mulrenan devoted his practice to neurology, and was a former member of the neurological staff of the Graduate School of Medicine of the University of Pennsylvania. He was a member of his county and State medical societies and a Fellow of the A. M. A.; a member of the Medical Club of Philadelphia, the Philadelphia Neurological Society, the Esculapian Club, and the Physicians Motor Club. He is survived by his wife, a son, and a daughter.

BYRON MONROE SELL, Altoona; Jefferson Medical College, 1924; member of his county and State medical societies and a Fellow of the A. M. A.; aged 37; Dec. 9.

JOHN JOHNSON SINGER, Greensburg; University of Pennsylvania School of Medicine, 1902; member of his county and State medical societies, the American Roentgen Ray Society, and the Radiological Society of North

America; on the staff of the Westmoreland Hospital; aged 55; Nov. 30.

CLARENCE C. SPICHER, Johnstown; Baltimore Medical College, Maryland, 1903; member of his county and State medical societies and a Fellow of the A. M. A.; member of the staff of the Johnstown City Hospital from 1906 to 1920, and chief of the medical service of the Conemaugh Valley Memorial Hospital from 1921 to 1934, when he retired on account of the age limit; aged 60; Jan. 1, from a heart attack. He is survived by his wife and 4 children.

DANIEL AMOS WILSON (col.), Norristown; Hahnemann Medical College, Philadelphia, 1890; died at his home Dec. 22, after an illness of 6 months; aged 67. He is survived by his wife and 3 sons, one of whom is Dr. Daniel A. Wilson, Jr., in practice at Norristown.

Miscellaneous

DR. JOHN A. MCGLINN, Philadelphia, has been advanced to the grade of Captain, M.C., U.S.N., R.F.

DR. AND MRS. MCCLUNEY RADCLIFFE, Philadelphia, celebrated the fiftieth anniversary of their marriage, Jan. 1, at a tea at the Bellevue-Stratford Hotel.

DR. ANNIE R. ELLIOTT, chief of the women's department of the Norristown State Hospital for 22 years, has been appointed superintendent of the hospital to succeed the late Dr. Solomon Metz Miller.

ON JAN. 26 AN OUT-PATIENT CLINIC for the John A. Kolmer vaccination of children against anterior poliomyelitis, was started at the Temple University Hospital, Saturday mornings from 10 to 11 o'clock.

THE LANKENAU HOSPITAL, Philadelphia, has been bequeathed the \$30,000 estate of Emilie Schmidt, Philadelphia, subject to payment of the income during his life to her brother, William Schmidt.

DR. AND MRS. HENRY W. GEORGE, of Middletown, and their 2 daughters sailed Dec. 26 on a 3-month Mediterranean cruise. They plan to visit Palestine and the Holy Land, returning about March 20.

DR. EDWARD LOBHOLZ, Isaac Ott professor of physiology, University of Pennsylvania Graduate School of Medicine, received the 1934 award of honorary membership in the Philadelphia Academy of Stomatology at the society's annual dinner recently.

THE 27TH ANNUAL MEETING of the Pennsylvania State Conference on Social Welfare will be held in Pittsburgh during the week of Feb. 18. The conference schedule includes a number of general meetings, panel and forum discussions, and institutes for intensive study of specific problems.

DR. FRANCIS F. BORZELL, of Philadelphia, has been appointed chairman of the Committee on Medical Economics of The Medical Society of the State of Pennsylvania to fill the vacancy caused by the resignation of Dr. Philip J. Lukens, of Ambler.

THE PHILADELPHIA METABOLIC ASSOCIATION is sponsoring a course of 6 lectures for parents of diabetic children. The series, which began Jan. 10 and will continue for 6 consecutive Thursday evenings, is presented by Miss Anna O. Stevens, formerly on the staff of Geisinger Hospital, Danville.

AT THE REGULAR STAFF MEETING of the National Stomach Hospital, Philadelphia, the following were elected to serve for the year of 1935: Chief of the staff, Dr. Louis W. Schwindt; secretary of the staff, Dr. Randall Strawbridge; Scientific Committee, Drs. M. P. Warmuth, James F. Donnelly, and Justin Schwerin.

THE AMERICAN BOARD OF OPHTHALMOLOGY will conduct examinations in Philadelphia, June 8, 1935, and in New York City, June 10, 1935. Applications must be filed at least 60 days before date of examination. Ad-

dress communications to Dr. Wm. H. Wilder, 122 South Michigan Ave., Chicago, Ill.

DR. NORMAN R. GOLDSMITH, of Pittsburgh, a son of Dr. Milton Goldsmith and the late Dr. Luba Robin Goldsmith, was recently awarded a prize of \$100 for original research in medicine at the annual convention of the Phi Delta Epsilon medical fraternity in New York City. The title of Dr. Goldsmith's paper was "Therapeutic Results with Autogenous Bacteriophage in Controlled Cases."

ACCORDING TO THE *United Press*, a roll of 25 physicians having made the greatest contributions in medical science during 1934 contains the names of 2 Pennsylvanians: Chevalier Jackson, Philadelphia, for the development of the bronchoscope; and John A. Kolmer, Philadelphia, for his research in agranulocytosis, which brought him the Ward-Burdick Medal of the American Society of Clinical Pathologists.

A BILL WAS INTRODUCED in the present session of the New York State Assembly which if passed will add a new section to the Education Law, providing "portion of street in front of a physician's residence in each city or town shall be reserved as parking space for exclusive use of himself and persons visiting him professionally." The necessity for a law of this kind demands no argument.

DR. MORRIS A. WEINSTEIN, a member of the Medical Staff of the Mount Sinai Hospital, Philadelphia, will deliver the sixth of a series of 9 Health Talks being given at the Mount Sinai Hospital, located at Fifth and Reed Streets, Philadelphia, Feb. 27, at 8:30 p.m. The subject of his lecture will be "Discharging Ears with Resultant Dangers."

DRS. MOSES BEHREND, David Riesman, Solomon Solis-Cohen, and Michael G. Wohl, of Philadelphia, sponsored a dinner Jan. 29, in celebration of the laying of the cornerstone of the Medical College on Mount Scopus, Jerusalem, and in recognition of the achievements of Dr. Nathan Ratnoff, on its behalf. Speakers included Drs. Emanuel Libman, Cyrus Adler, and A. S. W. Rosenbach.

A LOCAL PHYSICIAN in Austin, Texas, has ascertained that a baby is worth slightly more than twice its weight in copper. The physician who had delivered a baby for a young couple was surprised one morning recently to find a sack containing 3000 pennies on his desk. A note explained that the pennies were in payment for the child. Evidently the couple had been saving the pennies for a long time. The baby when born weighed 7 pounds. The pennies weighed 16½ pounds.

A NATION-WIDE CAMPAIGN to make maternity safe has been planned by the Maternity Center Association, 1 East 57th Street, New York City. The climax of the effort will be timed for the week previous to Mother's Day, which falls this year on May 12.

Mrs. Shepard Krech, president of the association, has sent out a widespread call for the coöperation of churches, women's clubs, civic and educational institutions, offering without charge to supply groups with suggestions for local programs to improve maternity care.

THE ANNUAL MEETING OF THE MEDICAL CLUB OF PHILADELPHIA was held Jan. 18. The following officers were elected: President, Edward J. Klopp, professor of surgery, Jefferson Medical College; first vice-president, Walt P. Conaway (Atlantic City, N. J.); second vice-president, Henry B. Kobler; secretary, William S. Wray; treasurer, Charles S. Barnes; governor for 5 years, W. Burrill Odenatt; and directors, Paul B. Cassidy, Clifford B. Lull, George C. Yeager, Mulford K. Fisher, and M. Fraser Percival.

DR. ELWOOD R. KIRBY WAS APPOINTED a member of the Board of Health of Philadelphia, by Mayor J. Hampton Moore, Jan. 10, to fill the vacancy caused by the resignation of Dr. Alexander C. Abbott. Dr. Ab-

bott served most efficiently as a member of this board for 31 years, except the period during the war when he secured a leave of absence. The then director of health, Dr. Wilmer Krusen, appointed Dr. Frank C. Hammond to fill the vacancy during Dr. Abbott's absence in military service.

MEMBERS OF THE Federation of American Societies for Experimental Biology have been advised by their president, Dr. W. A. Howell, of Johns Hopkins University, of the invitation extended by their Soviet colleagues to attend the 15th International Physiological Congress to be held in Russia next summer. The convention will begin in Leningrad on Aug. 8, and after an 8-day visit to scientific institutions in that city will adjourn to Moscow where the meeting and discussions will continue until the Congress terminates on Aug. 18.

THE UNIVERSITY OF PENNSYLVANIA recently announced the adoption of a policy prohibiting the patenting for profit by any one connected with it of any invention or discovery affecting the public health. Neither the university nor any one in its employ will be permitted to patent new drugs, processes, or apparatus invented or discovered that are intended for medical or surgical use. It has never been the practice of the university to patent such discoveries, but there has never before been a definite ruling against it.

A LIMITED NUMBER of Oliver-Rea scholarships for well-qualified graduates in medicine who desire to do graduate study, especially in internal medicine, are available at the New York Post-Graduate Medical School, Columbia University. By the terms of the endowment agreement, applicants from Allegheny County, Pennsylvania, other circumstances being equal, will be given preference. Application should be made to the director of the medical school.

THE 7TH INTERNATIONAL CONGRESS on Industrial Accidents and Diseases will be held at Brussels, Belgium, from July 22 to 27, 1935. The American Committee of the Congress is under the chairmanship of Dr. Fred H. Albee, New York, for the Section on Accidents, and that of Dr. Emery R. Hayhurst, Columbus, O., for Industrial Diseases. The American delegation to the Congress will sail from New York on Aug. 8 and visit London, Amsterdam, The Hague, and Paris and, optionally, Budapest. Physicians interested in the Congress or in the medical tour in conjunction with it may address the secretary, Dr. Richard Kovacs, 1100 Park Avenue, New York.

A SERIES OF 4 LECTURE CONFERENCES under the auspices of the Child Research Clinic of The Woods Schools, Langhorne, Pa., on "The Scientist Looks at the Emotionally Unstable Child," were given Jan. 24 to 31 and Feb. 14 to 28 at the Woods Schools. The following lectures were listed: "Behavior Problems in Children; The Importance of Training and Conditioning," Dr. Temple Fay, professor of neurosurgery, Temple University School of Medicine, Philadelphia; "The Endocrine Aspects of the Emotionally Unstable Child," Dr. A. S. Blumgarten, associate attending physician, and chief of Endocrine Department, Lenox Hill Hospital, New York City; "Family Situations in Relation to the Emotionally Unstable Child," Dr. Howard W. Potter, professor of clinical psychiatry, Columbia University, New York; "The Play Technics (The Seven Arts): Their Diagnostic, Prophylactic, and Therapeutic Significance in Psychiatric Work with Children," Dr. Edward Liss, consulting psychiatrist to Durlach School, New York.

THERE WERE 63,459 MARRIAGES PERFORMED in Pennsylvania in 1933. This total is equivalent to a rate of 12.8 persons married per 1000 population. Thus the number of people who were married in this State that year was greater than the entire population of Reading. Twenty-two girls were under age 15. In the age group, 15 to 19 years, 10,634 brides and 1654 grooms were recorded. The most popular ages to marry in this

State are between 20 and 24 years, inclusive. In 1933, more girls under age 20 were married than women between ages 25 and 29. At the other age extreme, the marriages of 11 women and 49 men over age 75 were registered. It is interesting to note that for 3 of these elderly grooms their marriage in 1933 was their first matrimonial venture. In 37 cases, it was the second marriage, in 7 instances the third, and 2 men over age 75 became grooms for the fourth time. There were 23 second marriages for brides under age 20 in 1933, and a fourth marriage for a woman in the age group, 35 to 39 years.—*Penna. Health.*

TO MEET A VERY PRESSING need, the Bryn Mawr Hospital is the first of the general hospitals along the Main Line of the Pennsylvania Railroad to open a separate department for the care and treatment of selected nervous cases, the result of physical breakdowns due to worry or overwork. The new department has been located on one floor of the hospital.

ACCORDING TO THE *Associated Press*, Mr. James H. Moyle, Commissioner of Customs, Washington, D. C., announced on Jan. 5, that 9 books and magazines, most of them dealing with birth control were barred from entry into the United States on the ground of being obscene. The following is a list of the publications that are barred: "Therapeutic Contraception," by Hannah M. Stone, reprinted from the *Medical Journal and Record* (March 21, 1928).

"A Letter to Working Mothers on How to Have Healthy Children and Avoid Weakening Pregnancies," by Marie Carmichael Stopes, published by Mothers' Clinic for Constructive Birth Control, London (1934).

"The Birth Control News," March and April, 1934.

"The New Generation" (May, 1931).

"The New Generation" (April, 1933).

"C. B. C. The Tenets of the C. B. C., London (March, 1923).

"C. B. C. Society and Clinic for Constructive Birth Control," London (no date).

Two other books seized for review were given official approval. They are *The Rhythm of Sterility and Fertility in Women* by Leo J. Latz, published by Latz Foundation of Chicago, and *What Is Constructive Birth Control?* published in London.

THE NEW ADDITION TO THE ROBERT PACKER HOSPITAL, Sayre, Pa., was opened for inspection to the public on Dec. 6, 1934, at 9 a.m., and until late in the evening a total of more than 5000 people passed through the building. On Dec. 7, the staff of the hospital and the Guthrie Clinic invited the medical and dental professions of the surrounding communities to inspect the building, attend scientific meetings, and be their guests at luncheon. About 300 physicians and dentists attended.

At the morning session of the scientific program, Dr. Donald Guthrie, surgeon-in-chief of the hospital, presided. The following papers were read: "The Present Status of Vaccination Against Disease," Dr. John A. Kohmer, Philadelphia; "Malignancies of the Colon," Dr. John F. Erdmann, New York City; and "Malignancies of the Mouth," Dr. Gordon B. New, Rochester, Minn. At the afternoon session, the following papers were read: "Endocrine Diseases and Results of Research Work on Thyms and Pineal Glands," Dr. Leonard G. Rowntree, Philadelphia; and "Progress in the Treatment of Hyperthyroidism," Dr. George Crile, Cleveland. Addresses were also made by Dr. Arthur W. Booth of Elmira, N. Y., representing the Board of Trustees of the American Medical Association, and President Moses Behrend of The Medical Society of the State of Pennsylvania.

The new building is 180 feet long and 50 feet wide with a 2-story portion connecting to one of the older wings, 60 feet long by 30 feet wide. There are 8 floors not counting the solarium roof and the 2 floors above it in the tower which house respectively the air conditioning equipment and the elevator machinery.

(Concluded on page xii.)

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PHYSICIANS have discovered for themselves the advantages of *Karo Syrup* for infant feeding, but some prefer a dry preparation to a syrup. To meet this demand, *Karo Powdered* has been developed . . . *Karo Powdered* is a pure granular mixture of dextrin, maltose and dextrose in suitable proportions for infant feeding. Marketed in dust-proof containers . . . Write for sample, booklet, and prescription blanks on *Karo Powdered*.



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MEDICAL NEWS

(Concluded from page 388.)

Special Medical Broadcast Program

The American Medical Association will broadcast on a special program arranged through the courtesy of the National Broadcasting Company over a network of stations, beginning at 6 p.m., Eastern standard time, Monday, Feb. 18. The program will include music and 3 speakers from among physicians in attendance at the Annual Congress on Medical Education and Medical Licensure, meeting in Chicago on that day. The speakers will be introduced by Dr. Morris Fishbein. The speakers and their topics are as follows:

Advancement of Medical Education, Walter L. Biering, M.D.

The Prolongation of Life, Ray Lyman Wilbur, M.D.

The Battle Against Tuberculosis, Kendall Emerson, M.D.

The present spectacle of vitamin advertising running riot in newspapers and magazines and via radio emphasizes the importance of the physician as a controlling agent in the use of vitamin products.

Mead Johnson & Company feel that vitamin therapy, like infant feeding, should be in the hands of the medical profession, and consequently refrain from exploiting vitamins to the public.

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THE DIAGNOSIS OF LEUKEMIA IN CHILDHOOD*†

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The diagnosis of leukemia in infancy or childhood should offer no particular difficulty in cases presenting the classical symptoms and signs of this condition. However, a group of atypical cases (some nonleukemic in nature but clinically resembling leukemia, and others of a true leukemic nature but mistaken for other diseases) often fails to make diagnosis simple and infallible. It seemed worth while, therefore, to collect and present a group of cases which has been of interest and which has offered differential problems in personal experience.

The majority of leukemias in the young are of the acute type. Chronic myeloid leukemia, although infrequent, is an accepted and undisputed disease in childhood, and the clinical condition is the same as in the adult form of the disease. Chronic lymphatic leukemia is said by many never to occur in childhood. There are some well-authenticated reports, recently collected, which make it seem probable that chronic lymphatic leukemia does occur in childhood, though it is certainly the least common type found in young life. This presentation, therefore, shall be limited to a discussion of the acute types of myeloid or lymphatic leukemia.

The symptomatology of leukemia in young life may be reviewed very briefly. The onset is usually acute, with fever, headache, loss of appetite, vomiting, and asthenia. The initial symptoms are followed by increasing weakness, apathy, pallor, and abdominal, or bone or joint pain. Of frequent occurrence are hemorrhages from the mucous membranes or into the skin, cervical adenopathy, stomatitis, and occasionally nervous symptoms. Dyspnea and cough are noted in cases of mediastinal leukemic tumor. Submaxillary and lacrimal gland swellings are

sometimes noted, as well as leukemic skin infiltrations. With the rapid development of anemia the skin becomes white or lemon colored. Leukemic infiltrations occasionally occur in the retina and also in the stomach. Infiltrations are more frequent in the intestinal tract and, if ulcerative, may cause diarrhea. Metastatic infiltrations may cause tumor formation, as in chloroma.

From these symptoms it may be seen that leukemia may be mistaken for other conditions if a thorough blood examination is not made. Such diseases as diphtheria, ulcerative stomatitis, angina purpura, scurvy, and endocarditis may be suspected from the initial symptoms manifested in the mouth and throat, and from the hemorrhagic tendency and the febrile cause.

CYTOLOGIC DIFFERENTIATION

Leukemia may be suspected when leukocytosis or hyperleukocytosis is present, though it may be characterized by leukopenia throughout its course. Morphologic examination is necessary for a definite diagnosis. Predominance of immature forms of the myelocytic or lymphatic type will differentiate myelogenous from lymphatic leukemia. Prevalence of immature cells and smudges aids in the diagnosis.

In mature types of cells the oxydase reaction is positive for the myelocytic type and negative for the lymphocytic type. However, younger myelocytic cells, as myeloblasts, may also be oxydase-negative. Cases are reported in which monocytes were the predominant type of cell, and there is considered by many to be a third type of leukemia known as monocytic leukemia. This is believed by others to belong to the myeloid or the lymphatic types. Stem-cell leukemia is a term applied when very immature cells predominate.

Leukemia is most often associated with a leukocytosis, though it is becoming more generally

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recognized that many cases are characterized by a leukopenia throughout their course. Therefore, material to be presented has been divided into a first group, in which leukocytosis occurs, and into a second group, in which leukopenia occurs.

GROUP I

Differentiation when leukocytosis is present

- A. Nonleukemic conditions simulating leukemia.
 1. Pertussis.
 2. Pneumonia.
 3. Sepsis.
 4. Von Jaksch's pseudoleukemic anemia.
 5. Cooley's Mediterranean erythroblastic anemia.
 6. Infectious mononucleosis.
 7. Mediastinal tumor.
 8. Niemann-Pick's essential lipoid histiocytosis.
- B. Leukemia simulating other conditions.
 1. Mediastinal tumor.
 2. Rheumatism.
 3. Diarrhea.
 4. Parotitis.

The following cases fall into Group I.

Pertussis is usually accompanied by leukocytosis and lymphocytosis. Not infrequently hyperleukocytosis of such a degree may be present that a diagnosis of leukemia may be suspected. The following case is illustrative:

A female infant, age 7 months, was brought to the hospital because she had 4 convulsions during the previous night. There was a history of cough of 2 weeks' duration, which had gradually increased in severity. The infant had vomited several times for 2 days prior to admission, which was attributed by the mother to the coughing. The convulsive seizures had been of a definite clonic nature and were generalized. The infant had been a normal, full-term delivery, was breast fed, and had no history of previous convulsions. The remainder of the history was uneventful, and there was no history of exposure to pertussis.

Physical examination revealed a fat, well-nourished infant, weighing 18 pounds, 14 ounces. The temperature on admission was 100.6° F. There was no cranio-tabes. The anterior fontanel admitted 2 finger tips. There were no frontal bosses, no enlargement of the costochondral junctions, and no widening of the epiphyses. Otoscopic examination of the ears revealed pale, normal drums.

There was harsh breathing, and a few moist sibilant râles were heard at the left base posteriorly. The breath sounds were vesicular throughout and there was no dullness or impairment of resonance. The heart was not enlarged on percussion, the tones were clear, and there were no murmurs. The abdomen and extremities were normal. The routine complete blood examination showed an amazingly high white blood cell count. The hemoglobin was 80 per cent (Sahli); the red blood cell count, 5,025,000; and the white blood cell count, 213,000. The differential count showed 27 per cent polymorphonuclear cells; 5 per cent small lymphocytes, 65 per cent large lymphocytes, 3 per cent eosinophils.

The findings of the detailed blood examination are summarized in Table I.

Pneumonia is sometimes accompanied by high initial white blood cell counts.

A male child, age 4, was taken sick with fever and slight cough. On initial examination some râles were heard over the right lower chest, and the spleen was palpable. Blood examination showed a white blood cell count of over 40,000 with 60 per cent large lymphocytes and mononuclear cells. Two days later the signs of a frank right lower lobar pneumonia were present. Recovery from the pneumonia by lysis was uneventful. There was a gradual drop in the white blood cell count, and the differential count returned to normal on the tenth day.

The blood reaction in this child may be considered of a lymphatic type. Although lymphocytosis is physiologically present in the blood of younger children, there is a type of child, known as the exudative lymphatic type, who will respond under slight or severe infections with a leukocytosis of lymphatic type, besides showing glandular enlargement and enlargement of the spleen.

TABLE I
Blood Findings in Pertussis

Day	WBC	Percentage					
		PMN	SL	LL	T	E	B
1 (On admission)	213,330	27	5	65	0	3	0
2	115,600	35	8	56	0	1	0
3	108,000	38	10	50	1	1	0
4	95,000	0	0	0	0	0	0
5	88,000	0	0	0	0	0	0
6	86,500	37	42	18	1	2	0
8	66,000	0	0	0	0	0	0
10	58,000	24	54	18	1	3	0
12	24,600	0	0	0	0	0	0
15	21,000	19	66	13	1	1	0

WBC—white blood cells; PMN—polymorphonuclear cells; SL—small lymphocytes; LL—large lymphocytes; T—transient cells; E—eosinophils; B—basophils.

Sepsis in infants and young children may show protean manifestations. If the focus of the infection is obscure and the onset sudden or insidious with fever, accompanied by enlargement of the spleen and lymph nodes, and a progressively developing anemia with hemorrhagic manifestations and atypical blood findings, a leukemia is often simulated. The correct clinical diagnosis of the following case was not made clear until the microscopic sections made during a careful pathologic study revealed the true nature of the disease.

A male, age 5, was taken acutely ill with fever and abdominal pain. There was some abdominal muscle spasm. The white blood cell count showed 22,000 cells, 89 per cent of which were lymphocytes. Appendectomy was followed by pneumonia, subsequent to which the white blood cell count dropped. Recovery was never complete. The patient developed a stomatitis and febrile periods ensued. The stomatitis cleared and then recurred accompanied by gingivitis, and an ulcerative lesion of the soft palate developed. Hemorrhages from the mucous membranes of the mouth occurred, pur-

puric spots on the skin appeared, and a dry gangrene of one finger tip was noted. The spleen was considerably enlarged and the liver palpable. The white blood cell count rose to 57,000 and finally dropped to 900. A lymphocytic preponderance was noted practically throughout the course of the disease. Necropsy showed an organizing bronchopneumonia with clumps of cocci disseminated in the bone marrow and liver. Careful examination of the spleen and lymph nodes revealed no trace of leukemic infiltration. With the clinical course, the signs and symptoms, and the blood examinations, this case would have fitted perfectly into a diagnosis of acute lymphatic leukemia though it became obvious that it was a case of sepsis. The complete blood findings appear in Table II.

TABLE II
Blood Findings in Sepsis

Date	H	RBC (Millions)	WBC	Percentage			
				N	L	Mo	Others
11-14-31	85	4.1	22,300	13	87	0	0
11-15-31	80	3.7	14,300	28	70	2	0
11-17-31	80	3.6	6,500	27	73	0	0
11-21-31	75	3.7	9,250	19	81	0	0
11-25-31	75	3.8	18,500	15	81	4	0
1-11-32	65	3.2	37,050	8	92	0	0
3-21-32	30	2.0	14,300	9	91	0	0
4-4-32	30	1.5	57,600	3	93	0	4 lympho- blasts
4-14-32	45	2.6	33,600	28	70	2	0
4-18-32	45	2.2	13,000	1	99	0	0
4-25-32	41	1.9	3,300	9	91	0	0
5-4-32	30	1.5	900	12	88	0	0

H—hemoglobin; RBC—red blood cells; WBC—white blood cells; N—neutrophils; L—lymphocytes; Mo—monocytes.

Von Jaksch's anemia infantum pseudoleukemia occurs in infants between age 6 months and age 2. It is characterized by severe anemia and leukocytosis, with many nucleated red blood cells and other immature cells in the circulating blood. An enlargement of the liver and spleen is also present. The condition has been associated with rickets and infection, and is probably a severe form of secondary anemia due to the association of these 2 conditions. The following case illustrates this condition:

A female infant, age 30 months, was seen with the complaints of vomiting, constipation, loss of weight, and pallor of one month's duration. Examination revealed a pale, poorly nourished infant, with a rachitic rosary and widening of the epiphyses. The liver and spleen were large. The temperature was of a subfebrile character and the Wassermann reaction was negative. The blood findings showed leukocytosis with an increase in nucleated red blood cells. The findings of the detailed examination are shown in Table III.

Erythroblastic anemia is a rare form of anemia first described and named by Cooley, who differentiated it from von Jaksch's anemia. It occurs in infants of families originating in Mediterranean countries and is of congenital, familial, and racial incidence. It is a slowly progressing anemia with large numbers of nucleated red

TABLE III
Blood Findings in von Jaksch's Anemia

Date	H	RBC (Millions)	WBC	Percentage				N/WBC
				N	L	Mo	My	
2-1	35	2.07	38,800	53	35	2	10	40
2-12	25	2.65	40,200	53	33	3	11	30
2-17	30	2.08	34,600	55	30	4	11	55

H—hemoglobin; RBC—red blood cells; WBC—white blood cells; N—neutrophils; L—lymphocytes; Mo—monocytes; My—myelocytes; N/WBC—normoblasts per 100 white blood cells.

cells in the peripheral blood. There is enlargement of the liver and spleen, also a mongoloid facies. Roentgen-ray examination of the bones shows characteristic changes—a thinning of the cortices and a widening of the medullary portions, with prominent trabeculation and radiating spicules from the inner table of the skull. The ultimate prognosis is unfavorable.

A Greek male infant, age 2½, had been normal at birth. At age 8 months it was noted that the abdomen became prominent. On examination he showed marked pallor; the temperature was subfebrile with an occasional sudden rise; the expression was dull; and with a wide flat nose and a prominent abdomen he gave a somewhat mongoloid appearance. The liver was enlarged and the spleen extended nearly to the umbilicus. A detailed blood picture appears in Table IV.

TABLE IV
Blood Findings in Cooley's Mediterranean Erythroblastic Anemia

Date	H	RBC (Millions)	WBC	Percentage				N/WBC
				N	L	Mo	My	
10-25	35	2.02	18,200	49	41	1	9	5
10-28	35	1.96	26,000	54	39	1	6	7
11-1	30	2.7	15,200	64	32	1	3	3
11-5	35	2.6	21,600	62	26	3	9	4
11-9	25	1.4	16,800	47	40	3	10	2
11-14	30	1.8	31,900	58	37	2	3	3
11-18	25	1.14	21,500	52	38	9	1	1
11-25	35	2.12	26,400	64	27	6	4	0
11-30	30	1.76	20,000	49	48	0	3	1
12-8	25	1.1	10,200	55	43	0	2	0

H—hemoglobin; RBC—red blood cells; WBC—white blood cells; N—neutrophils; L—lymphocytes; Mo—monocytes; My—myelocytes; N/WBC—normoblasts per 100 white blood cells.

Acute infectious mononucleosis, sometimes termed Pfeiffer's disease or glandular fever, is an acute illness with general glandular swelling, enlargement of the spleen, and fever of long or short duration. There is usually a reddening of the throat, and at times follicular spots or a pseudomembranous type of angina. A leukocytosis is present and is manifested by an increased number of small and large lymphocytes and monocytes. The course of the disease is usually mild. Thoracic and abdominal symptoms may occur from enlargement of the lymph glands in these regions.

The resemblance at the onset to acute leukemia may be striking with the throat lesions, fever, glandular and splenic enlargement. However, the throat lesions are less extensive than in leukemia and disappear rapidly, the disease is generally less severe, and the anemia and hemorrhagic symptoms characteristic of leukemia are absent. Diagnosis from the blood picture alone is not always possible, though some authors maintain that the large lymphocytes and monocytes found in infectious mononucleosis are pathognomonic of this condition.

A female child, age 4½, was taken acutely ill with fever, sore throat, vomiting, and enlarged cervical glands. The spleen was palpable 2 finger breadths below the costal margin. The acute illness was of 4 days' duration; the spleen was somewhat smaller after 1 week but remained palpable for 6 weeks after the onset. The blood was marked by a leukocytosis with an increase in the lymphocytes and mononuclear cells, which were persistent for some time. There were no hemorrhages or petechial spots on the skin. The blood findings are summarized in detail in Table V.

TABLE V
Blood Findings in Infectious Mononucleosis

Date	H	RBC (Millions)	WBC	Percentage			Remarks
				N	L	Mo	
9-25	75	4.5	25,000	50	48	2	Spleen, 2 plus
10-4	75	4.4	14,600	42	50	8	Spleen, 1 plus
10-10	79	4.5	22,500	26	60	14	Spleen, 1 plus
10-20	..	...	22,100	38	60	2	Spleen, 1 plus
10-28	75	4.4	23,300	32	60	8	Spleen, tip
11-20	78	4.8	30,100	24	66	10	Spleen, zero
12-15	78	4.8	17,500	36	54	10	.....

H—hemoglobin; RBC—red blood cells; WBC—white blood cells; N—neutrophils; L—lymphocytes; Mo—monocytes.

Essential lipid histiocytosis (Niemann Pick's disease) is a disease which occurs in infants under age 2 and is marked by mental and physical retardation, an early enlargement of the abdomen, and enormous enlargement of liver and spleen. Irregular fever occurs. The disease runs a chronic course and terminates unfavorably. The blood findings are marked by slight to moderate anemia and leukocytosis with some increase in the mononuclear cells. Vacuolation of the lymphocytes and monocytes has been noted.

A female infant, age 8 months, had anorexia, irritability, and a protuberant abdomen for 2 months. The infant was pale and irritable, with a suggestive mongoloid appearance, and gave signs of mental retardation. The liver and spleen were greatly enlarged. The eyegrounds were normal and the serologic examination was negative. A splenectomy was performed and the

typical foam cells were found in the spleen. The findings of the detailed blood examination are shown in Table VI.

TABLE VI
Blood Findings in Lipoid Histiocytosis

Age in Months	H	RBC (Millions)	WBC	Percentage			
				N	L	Mo	Others
8	55	3.4	14,200	45	55	0	.....
9	63	3.45	15,000	35	65	0	Vacuolation lymphocytes and mono- cytes.
10	60	3.84	13,250	31	65	4	.....
12	60	3.83	15,700	31	60	9	.....
13	62	3.6	7,000	45	50	5	.....
15	80	4.31	14,500	54	44	2	.....
Post-operative	65	3.8	14,800	49	48	3	.....

H—hemoglobin; RBC—red blood cells; WBC—white blood cells; N—neutrophils; L—lymphocytes; Mo—monocytes.

Mediastinal enlargements of the thymic area occur in leukemia. This condition may be present before actual blood changes have occurred, and the symptoms from pressure on the trachea may cause dyspnea. Irradiation of the thorax will give relief in those cases in which leukemic blood changes have not already occurred, and the mass may completely recede, as shown by roentgen-ray examinations. However, the condition is only temporary, as a leukemic blood picture and signs of a true leukemia develop after an interval.

The case of a boy, age 10, who had a nonleukemic round-cell tumor of the mediastinum with a leukocytosis of 40,000 simulated this condition. The complaint was cough and a 7-pound loss in weight in 3 months. Shortness of breath, dyspnea, and pain in the side were present for 1 month. There was an inconstant fever. The boy was thin and pale; he showed immobility of the left chest, flatness over the left lung anteriorly, and dullness posteriorly. Thoracentesis resulted in a dry tap. A laryngeal cough developed and death occurred suddenly. Necropsy showed an infiltrative round-cell tumor of the anterior mediastinum invading the lung and pericardium.

Arthritis may be associated with leukemia, accompanied by pain and swelling of the joints. If the blood count is low an acute rheumatic fever may be considered erroneously.

A male, age 9, had a swelling of the right elbow associated with fever. The child was pale, thin, and in considerable pain, flexing the right arm. In addition to considerable swelling of the right elbow, there were a general glandular enlargement (most marked in the cervical region), a palpable liver, and an enlarged spleen. The temperature was 104° F. The white blood cell count was 10,450. The course of the disease was febrile; an increasing leukocytosis developed; and swelling and redness of the left elbow occurred, as well as of the metacarpals of the left hand. Finally, the white blood cell count exceeded 40,000 and petechiae and hemorrhages occurred. Necropsy revealed the

typical picture of an acute lymphatic leukemia. The detailed blood findings appear in Table VII.

TABLE VII
Blood Findings in Leukemia Simulating Rheumatism

Date	H	RBC (Millions)	WBC	Percentage			
				N	L	My	Lb
4-15	60	3.2	10,450	4	93	1	2
4-19	55	3.6	8,100	1	95	0	4
4-30	55	3.9	15,300	4	86	0	10
5- 8	60	3.5	23,300	10	80	10	0
5-10	60	3.2	44,800	17	60	8	15
5-20	60	3.1	148,000	8	79	3	10
5-26	55	3.0	340,000	2	98	0	0
5-30	..	...	104,000	6	94	0	0
6- 2	45	2.0	96,500	10	80	0	10
6- 5	40	2.4	94,000	0	91	0	9

H—hemoglobin; RBC—red blood cells; WBC—white blood cells; N—neutrophils; L—lymphocytes; My—myelocytes; Lb—lymphoblasts.

Salivary gland enlargement may be associated with lymphatic leukemia. Mikulicz described a condition of chronic enlargement of the salivary and lacrimal glands, which was bilateral and painless, and which he believed due to a low-grade infection. Cases of this type are known as Mikulicz's disease, whereas those associated with other conditions have been termed Mikulicz's syndrome. The relationship of mumps, syphilis, and tuberculosis to this disease has been suggested.

An infant, age 19 months, had bilateral swelling of the face for one month. He was well nourished, slightly pale, with bilateral swelling of the submaxillary, parotid, and lacrimal glands. There was a general glandular enlargement. The white blood cell count on admission was 11,200. This showed a decrease with a later rise and a terminal fall. The spleen was at first slightly palpable and later became greatly enlarged. During the last week of the disease the spleen rapidly shrank until it was barely palpable and the facial swellings receded. At necropsy the typical findings of acute lymphatic leukemia were demonstrated. The detailed blood findings are shown in Table VIII.

TABLE VIII
Blood Findings in Leukemia Simulating Parotitis

Date	H	RBC (Millions)	WBC	Percentage			
				N	L	Mo	My
5-15	60	3.3	11,200	16	72	8	4
5-21	50	3.1	14,200	6	90	4	0
5-23	60	3.0	2,400	20	80	0	0
6- 6	55	3.75	5,300	50	42	3	5
6- 9	50	3.3	3,720	64	31	5	0
7-10	65	3.7	2,500	51	38	3	8
7-16	65	4.6	7,850	24	72	2	2
7-19	..	....	12,600	13	73	5	9
7-29	45	2.6	24,550	1	92	5	2
7-31	40	2.2	6,350	1	96	3	0
8- 4	35	1.5	2,000	0	98	2	0
8- 7	..	....	1,550	0	100	0	0

H—hemoglobin; RBC—red blood cells; WBC—white blood cells; N—neutrophils; L—lymphocytes; Mo—monocytes; My—myelocytes.

The foregoing conditions were associated with leukocytosis. The following conditions are associated with leukopenia.

GROUP II

Differentiation when leukopenia is present

- A. Nonleukemic conditions simulating leukemia.
 1. Sepsis.
 2. Agranulocytosis.
 3. Gaucher's disease.
 4. Aplastic anemia.
 5. Malaria.
- B. Aleukemic leukemia simulating other conditions.
 1. Sepsis.
 2. Appendicitis.
 3. Aplastic anemia.

Sepsis in infants and children may be marked by leukopenia, often of a severe degree. The disease may be manifested by hemorrhages, petechiæ, and enlargements of liver and spleen, and may closely simulate leukemia.

A female infant, age 9 months, had anemia and purpuric spots on the skin for 6 weeks. She was acutely ill, with marked pallor and a distended abdomen. The liver and spleen were both considerably enlarged. The blood findings showed a progressive anemia with leukopenia and a relative lymphocytosis. They are given in detail in Table IX.

TABLE IX
Blood Findings in Sepsis with Leukopenia

Date	H	RBC (Millions)	WBC	Percentage			
				N	L	UM	Others
2-16	52	2.8	20,600	43	57	0	0
2-20	53	2.6	8,600	56	31	1	12 myelo-
3-10	40	1.9	4,000	0	70	30	cytes
3-15	30	0.9	3,600	0	65	35	0

H—hemoglobin; RBC—red blood cells; WBC—white blood cells; N—neutrophils; L—lymphocytes; UM—undifferentiated monocytes.

Agranulocytic angina or malignant neutropenia is not so common in children as in adults. The disease is characterized by an ulcerative nasopharyngitis, leukopenia, and diminished (or absence of) granulocytes. Lymphocytes and monocytes are unchanged. The fundamental pathologic change occurs in the bone marrow. Causes of neutropenia are: (1) Shifting of neutrophils from the peripheral blood; (2) excessive destruction of neutrophils in normal bone marrow; (3) exhaustion or inability of bone marrow to produce neutrophils. The bone marrow is hyperplastic and microscopically shows a decrease in the activity of myelocytic cells. Many authors question the entity of this disease as described by Schultz and prefer to consider the symptoms a syndrome which is capable of being produced by various etiologic agents.

Gaucher's disease is characterized by an insidious onset, with the gradual enlargement of the spleen and later of the liver. Leukopenia is the characteristic blood finding with little change in the differential count. Hemorrhagic diathesis is absent, and the course is protracted. Splenic puncture reveals typical Gaucher cells, pathognomonic of the disease.

Aplastic anemia is a progressive anemia associated with splenomegaly, leukopenia, and granulopenia, and marked by a diminution of the granulocytic elements in the differential picture and a lack of regeneration of the red blood cells. The characteristic pathologic finding is a fatty or fibrous replacement of the bone marrow. The disease is probably a symptom complex and may be caused by numerous etiologic factors. The condition can be positively diagnosed only by a pathologic examination of the bone marrow.

The severest types of *malaria* occur most frequently in the tropics though it also occurs in the temperate zones. Malaria may be confused with leukemia in regions where it is prevalent. The splenomegaly with leukopenia may be mistaken for an aleukemic leukemia. There are cases reported in which malaria has complicated a leukemia. In chronic malaria the monocytes are often increased and occasionally a myelocytic increase may be noted. In cases in which it is possible to demonstrate the malarial parasites in the blood, the differential diagnosis should not be difficult.

Aleukemic leukemia and sepsis with leukopenia are at times extremely difficult to differentiate. The following case is illustrative. It was proved at necropsy to be one of aleukemic lymphatic leukemia.

A female child, age 7, had the following symptoms: Fever, vomiting, nose bleed, and pallor of 2 weeks' duration. On admission the temperature was 103° F.; there was some bleeding from the nose, and the spleen was slightly enlarged. There was marked anemia with leukopenia. Hemolytic streptococci were cultured from the blood. A diagnosis of sepsis was made and 5 blood transfusions were given at intervals. After 6 weeks the hemoglobin and red blood cell count were within normal values and the white blood cell count was 7400. The child was afebrile and was discharged in excellent condition. Two weeks later she returned with marked anemia and petechiae on the extremities. There were 32,800 white blood cells, of which 96 per cent were lymphocytes. A septic course marked by angina and hemorrhages ended in death. The necropsy revealed the characteristic findings of lymphatic leukemia. The blood findings are presented in Table X.

Aleukemic leukemia may simulate appendicitis. In a case previously reported in this paper, a child was operated upon for appendicitis and developed sepsis simulating leukemia. Necropsy revealed the true condition.

TABLE X
Blood Findings in Aleukemic Leukemia Simulating Sepsis

Date	H	RBC (Millions)	WBC	Percentage			
				N	L	Mo	My
10-23	30	1.06	2,125	24	75	0	1
Five Blood Transfusions							
12-7	65	4.1	7,400	38	57	5	0
12-24	40	1.9	32,800	2	96	2	0
12-27	35	1.5	5,600	9	89	2	0
12-31	40	2.0	14,000	20	75	5	0
1-2	..	....	9,500	15	80	5	0
1-7	30	1.5	2,700	5	93	2	0

H—hemoglobin; RBC—red blood cells; WBC—white blood cells; N—neutrophils; L—lymphocytes; Mo—monocytes; My—myelocytes.

A male child, age 6, developed a sudden night attack of pain in the lower abdomen, with tenderness and rigidity in the lower right quadrant. He had a white blood cell count of 6000. The appendix was removed and revealed little evidence of inflammation. A similar attack occurred 3 weeks after operation, and the attacks of pain with fever occurred at intervals. Numerous transfusions were given, the leukocytes decreased, and pentnucleotide was administered. There was a septic course with gradual decline. The liver and spleen were never palpable. At necropsy the diagnosis of lymphatic leukemia was established. The findings of the detailed blood examination are presented in Table XI.

TABLE XI
Blood Findings in Aleukemic Leukemia Simulating Appendicitis

Date	H	RBC (Millions)	WBC	Percentage			
				N	L	Mo	IL
8-11	40	3.8	3,500	40	60	0	0
8-15	50	2.6	2,100	20	66	2	12
9-1	58	3.6	5,400	10	87	1	2
9-25	40	2.25	6,200	8	80	3	9
10-1	42	2.9	5,300	9	80	4	7
10-17	46	2.8	5,000	4	88	2	6

H—hemoglobin; RBC—red blood cells; WBC—white blood cells; N—neutrophils; L—lymphocytes; Mo—monocytes; IL—immature lymphocytes.

Aleukemic leukemia may simulate aplastic anemia, and the diagnosis can be definitely established only by a pathologic examination of the bone marrow.

The following unusual case, which was under close observation for over 2 years, showed an almost constant leukopenia accompanied by splenomegaly, anemia, and lymphocytosis. The prolonged course and associated blood findings, with neutropenia and the findings of myelocytes on only 2 occasions, made a clinical diagnosis of aplastic anemia seem probable.

A female child, age 4, was first admitted with the complaints of weakness, loss of weight, and night sweats. The child was thin and pale, with an enlarged abdomen; anemia was marked. The liver and spleen were palpable. There were a few purpuric spots on

the skin. Over a 2-year period there were repeated exacerbations of fever, hemorrhages, and enlargements of liver and spleen. During periods the symptoms subsided, and the anemic condition improved. There were occasional complaints of pain over the long bones. Numerous transfusions were given during the course of the disease. Two months before the fatal termination, blindness developed in the left eye. At times during the course of the disease the liver and spleen were barely palpable, while at other periods the enlargement reached to the umbilicus. Necropsy showed typical leukemic infiltrations of myeloid cells and the final diagnosis was chronic aleukemic myeloid leukemia. The detailed blood findings are presented in Table XII.

TABLE XII
*Blood Findings in Aleukemic Leukemia Simulating
Aplastic Anemia*

Date	H	RBC (Millions)	WBC	Percentage				
				N	L	Mo	My	IL
6-11-31	50	2.1	2,200	13	86	0	1	0
6-25	65	2.3	3,750	16	84	0	0	0
7- 8	55	3.2	4,300	11	86	3	0	0
7-22	65	3.4	3,600	16	84	0	0	0
8- 4	55	3.1	3,250	26	61	3	0	0
9-18	60	3.8	4,200	5	76	19	0	0
10- 4	60	3.9	5,900	26	62	10	0	2
10-25	55	2.6	4,900	26	64	4	0	6
11-13	55	2.9	5,000	32	62	5	0	1
11-30	75	4.5	5,500	40	53	7	0	0
12-31	75	5.1	5,900	22	70	8	0	0
2- 4-32	70	3.0	2,800	10	88	1	0	1
4- 6	45	2.5	1,700	1	84	8	0	7
5-26	70	4.1	4,800	14	65	3	0	18
7- 1	30	1.2	1,400	2	92	6	0	0
8- 9	41	1.3	1,600	16	84	0	0	6
10-31	70	4.4	7,900	16	74	4	0	0
11-27	..	3.6	3,200	9	61	10	0	20
12- 9	20	0.9	3,800	15	78	3	4	0

H—hemoglobin; RBC—red blood cells; WBC—white blood cells; N—neutrophils; L—lymphocytes; Mo—monocytes; My—myelocytes; IL—immature leukocytes.

TISSUE CULTURE OF BLOOD

Since 1914, when it was first attempted, tissue cultures of leukemic blood have been made in attempts to differentiate and establish the origin of the cell types involved in the leukemias.

In cultures of normal blood it has been found that macrophages and fibroblasts develop from lymphocytes and monocytes. In cultures of lymphatic leukemia, the lymphocytes again develop into macrophages and fibroblasts.

On the other hand, in cultures of blood from myeloid leukemia the myeloblasts develop not only into macrophages and fibroblasts but also into myelocytes, granulocytes, and normoblasts. By tissue culture it may be possible to separate lymphoblasts from myeloblasts in cases of stem-cell leukemia where differentiation is otherwise impossible.

CONCLUSIONS

A group of nonleukemic and leukemic cases are discussed and illustrative examples presented to show how atypical cases of leukemia may be confused with nonleukemic conditions, including those with leukocytosis and those with leukopenia. Cytologic as well as blood-tissue methods of differentiation are briefly discussed. In some of these atypical cases, clinical differentiation may be impossible. Sometimes even after the most careful pathologic review, the exact nature of the case may remain in doubt.

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THE PREOPERATIVE AND POSTOPERATIVE TREATMENT OF THE
JAUNDICED PATIENT*

HUBLEY R. OWEN, M.D., PHILADELPHIA

One always approaches operation upon any surgical condition associated with jaundice with some apprehension. This anxiety is not as great as formerly because of the more scientific methods of differential diagnosis, more improved technic, and more thorough knowledge of preoperative and postoperative treatment.

The surgical conditions most frequently associated with jaundice are inflammatory conditions including cholangitis and pancreatitis, obstruction of the common duct from stone or stricture, malignancy of the biliary passages or head of pancreas, congenital hemolytic icterus, and splenomegaly.

* Read before the Section on Surgery of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 3, 1934.

According to C. H. Mayo, jaundice in lesions of the biliary apparatus occurs in the following ratio: Common duct stones 50 per cent; common duct inflammation or edema 20 per cent; malignancy 15 per cent; serious infections of the gallbladder 5 per cent.

Bile pigment is an excretory product formed from hemoglobin. Bilirubin is formed in the cells of the reticular endothelial system and constitutes that part of the hemoglobin molecule which can no longer be utilized in the destroyed red blood corpuscles.

Kupffer's cells in the liver are part of the reticular endothelial system and are considered to be extrahepatic. These cells in man are commonly collected in the spleen, bone marrow, and liver.

Jaundice may be classified into: First, obstructive hepatic jaundice; second, toxic and infective jaundice; and, third, hemolytic jaundice. Rich terms toxic jaundice as retention jaundice and the obstructive type of jaundice as regurgitation jaundice.

The primary function of the liver is detoxication. Jaundice results, first, from an overproduction of bilirubin, in an amount greater than can be absorbed by the liver; and, second, if the excretory mechanism of the liver or biliary passages is disturbed.

The dangers of operation upon the jaundiced patient are: First, hemorrhage; second, uremia; third, hepatic insufficiency; and fourth, disturbance of the acid base balance.

What must be the outline of preoperative and postoperative care of these cases to minimize the danger of these complications?

Operation upon the biliary passages is not an emergency operation, with the exception of conditions such as empyema of the gallbladder. The exact meaning of immediate operation upon the biliary passages is somewhat difficult to determine. In the discussion of a recent paper advocating immediate operation upon cases of calculus cholecystitis, the essayist was asked his interpretation of immediate operation. The surgeon acknowledged that he would wait for a number of days for certain tests to be made. This cannot be deemed an emergency operation.

The danger of too long a delay before operation on the biliary tract involves a greater likelihood of hemorrhage, hepatic insufficiency from damaged liver, and renal insufficiency from toxemia.

The jaundiced patient should be carefully studied in order to make an accurate differential diagnosis. The differential diagnosis of surgical conditions causing jaundice is not the subject of this paper.

What studies can be made on the jaundiced patient in order to evaluate the safety of operation?

A detailed and accurate history of the case is imperative, including familial tendencies toward jaundice, antecedent diseases, and previous similar attacks. There should be careful physical examination, emphasizing the evaluation of the cardiovascular system and the respiratory status. Electrocardiographic study is imperative. It is undoubtedly true that many cases which we now recognize as liver deaths from liver insufficiency were formerly attributed to toxic myocarditis. Occasionally our attention is so directed toward the differential diagnosis of the pathologic condition causing the jaundice that the proper exam-

inations of the cardiovascular and respiratory systems may not receive the attention which they deserve. Small patches of atelectasis may be overlooked. These atelectatic patches may later be the focal points for the development of bronchial pneumonia.

The urine should be carefully examined and the examination made solely of the specimen of the patient. So many routine urines, especially of ward patients, are examined *en masse* so to speak. The routine examination should include tests for albumin, casts, red blood cells, and urea estimation to evaluate the degree of existing nephritis; and tests for sugar, acetone and diacetic acid to indicate the presence of associated diabetes. The 24-hour intake and output is of especial importance.

Acidosis is not an infrequent complication of disease of the biliary tract, especially acute gallbladder disease. Acidosis in these cases is not the result of destruction of liver substance but is secondary due to deficient intake of food, especially carbohydrates, or to vomiting or secretions from the stomach.

If early operation is considered, a carbon dioxide determination should be estimated. A combining power below 40 volumes per cent is contraindication for immediate operation. Glucose may be given by vein and a second determination made after 6 hours. If the reading has not been raised to 45 volumes per cent, glucose should be repeated.

Carter advocates the addition of 1 per cent solution of sodium bicarbonate to the intravenous glucose in those cases in which the reading is 30 volumes per cent or less. He emphasizes that "measures aimed at the rectification of acidosis by the administration of sodium bicarbonate should not be employed unless an accurate CO₂ determination has shown such to be safe as the mere finding of acetone and diacetic acid in the urine, which is usually considered an indication of acidosis, may occur in the presence of alkalosis and the administration of added alkalis may prove disastrous."

The value of the sedimentation rate in the case of the jaundiced patient is questionable. It has been found that the sedimentation rate is increased in a majority of cases of jaundice but has no relation to the degree nor duration of jaundice. Experiments have shown a correlation between the sedimentation rate and a tendency to hemorrhage in jaundice. The postoperative determination of the sedimentation rate may give some indication as to the possibility of delayed bleeding. Some writers believe that the sedimentation rate is more reliable in the deter-

mination of hemorrhagic tendency in jaundice than the determination of coagulation time or bleeding time.

Coagulation time has been devised as an indication of liver impairment upon the presumption that the chief factors in the delay of clotting time in jaundice with hepatic injury are increased bile salt content in the blood and the decreased amount of fibrinogen. Hemorrhage may occur in the jaundiced patient in the presence of normal coagulation time. Ravdin, Reigel, and Morrison found that coagulation time and values for blood sugar do not consistently parallel each other, although reduction in the coagulation time is frequently associated with increase in the blood sugar. If the coagulation time is estimated in all surgical patients we may be saved the embarrassment of operating upon a hemophiliac. The estimation of the coagulation time should certainly be routine in the jaundiced patient.

Judd and Walters express the belief that there is a distinct relation between jaundice and hemorrhagic tendency. Cutting states the cause of death in patients dying after operation on the biliary tract is hemorrhage in more than 50 per cent of cases. This would seem a very high estimation. It is well known that hemorrhage may be manifest in the jaundiced patient with a low value for serum bilirubin. Bleeding is anticipated more if the estimation for serum bilirubin is high.

The estimation of the icterus index or quantitative test of bilirubinemia for the amount of bile pigment in the blood is important. The normal icterus index is from 4 to 6; that is, .1 to .5 milligrams per cent bilirubin. It is possible by this test to estimate the increase in the bile pigments in the blood irrespective of jaundice. Those cases in which there is no clinical evidence of jaundice comprise a group of latent jaundiced cases frequently encountered in diseases of the liver and biliary tract.

The van den Bergh test may assist in the differential diagnosis of obstructive jaundice from a nonobstructive or hemolytic jaundice. The immediate direct (30 seconds) bilirubin is present in the form in which it occurs in bile. Hence obstructive jaundice with delayed direct or negative direct indicates increased bilirubin of the nonobstructive or hemolytic type of jaundice. The indirect reaction after the addition of alcohol is a purely quantitative test, all forms of bilirubin reacting to it (Ravdin).

A considerable number of patients with liver disease may fall into one group or the other, or may change from one type of reaction to the other during the course of the disease, so that the differentiation of the types of jaundice by the

van den Bergh test cannot unreservedly be made on this basis.

Time will not permit the enumeration of the various sugar tolerance tests—the galactose tolerance test, introduced by Bower of Vienna in 1906; the modified sugar test by Althouser and Keer; or the levulose tolerance test.

The liver function test as advocated by Graham or the bromsulphalein test is of the greatest importance, and the amount of retained dye should be estimated in every contemplated operation upon the jaundiced patient or in operating upon the biliary passages even in the absence of jaundice. The degree of danger in relation to the percentage of dye retained is a personal equation with the individual surgeon. Normally the liver can remove the injected dye from the blood within 30 minutes. Any retention of dye later than this period is a distinct evidence of liver disease. The retention is directly proportional to the extent of liver pathology. Graham's experience shows that patients having 50 per cent dye retention at the end of one-half hour are most likely to be the victims of hemorrhage or liver shock. Such cases should be delayed until the patient is carefully prepared by receiving glucose in large doses and repeated small blood transfusions to increase liver resistance. The statistics of Graham prove the necessity of the evaluation of liver function. Graham quotes the statistics of Courvoisier, 1890, giving mortality of 16 per cent following cholecystectomy. Graham's mortality for the 3 years ending 1927 was 6 per cent, and for the 3 years ending 1930 it was 0.4 per cent. The latter mortality, 0.4 per cent, is a goal toward which any surgeon may strive.

The preoperative treatment should include adequate fluid intake, from 2000 to 4000 c.c. in 24 hours depending upon the degree of absorption, to overcome dehydration.

The fluid should be given by the oral route preferably, although if vomiting occurs it may be given intravenously or by hypodermatoclysis. The 24-hour output should be accurately measured so that the intake and output may be properly balanced in order to prevent water intoxication or overburdening the circulatory apparatus.

To combat the possibility of hemorrhage in jaundiced patients calcium by mouth is practically valueless. Intravenous calcium chloride has been advocated, but definite theoretical or practical proof of its value is lacking and, as stated by Linton, low coagulability is not due to deficiency or abnormality of blood calcium. Calcium chloride administered intravenously, 5 to 10 c.c.

of a 10 per cent solution for 3 days, gives improvement for from 5 to 7 days, but the blood tests clearly show that the effect of calcium administration is very transient. After 2 hours the serum calcium level is unchanged. Ravdin states that in so far as can be ascertained no one has actually demonstrated the quantitative deficiency of serum calcium in adult dogs or man in hepatic disease. He believes that dextrose will produce marked reduction in coagulation time. Fewer postoperative hemorrhages have been observed following its use both before and after operation. As he states, the liver maintains an important rôle in the coagulability of blood and destruction or injury to the liver seriously affects the blood coagulation.

It is best to rely upon intravenous administration of glucose and upon small repeated blood transfusions (150 to 200 c.c.) in order to combat the tendency toward postoperative hemorrhage. Two hundred c.c. of a 10 per cent solution of glucose may be given twice daily for 3 or 4 days preliminary to operation and repeated the morning of operation. The intermittent rather than the continuous administration is preferable in the majority of cases because of the greater comfort to the patient.

Dilute solutions are more efficient since hypertonic solutions may not be stored, being lost in the urine. Occasionally the patient has a chill following administration of glucose intravenously. The exact determination of the cause of the chill is often difficult—whether due to the preparation of the glucose or to faulty technic in the sterilization of the rubber tubing. If this unfortunate complication arises, 50 c.c. glass syringes may be used to obliterate the possibility of improperly prepared rubber tubing.

It is important to consider the anesthetic to be used in the jaundiced patient. If the blood pressure will allow and the patient is not excessively nervous, spinal anesthesia is preferred for operations upon the biliary tract. During the operation carbon dioxide is given at frequent intervals, with instruction to the patient to take long breaths. Carbon dioxide should be administered routinely after operation, breathing exercises being supervised by the nurse. There are those who decry the use of spinal anesthesia. The abuse of this anesthetic is that it has been given in poorly selected cases and in too large doses. In those cases not suitable for spinal anesthesia, cyclopropane is preferred. Cyclopropane is trimethylene with the formula C_3H_6 . It simulates ethylene but is not as explosive. I have discontinued using avertin as a basal anesthetic. Although there are conflicting views regarding

the possibility of liver damage by the use of avertin, I dislike the combination of 2 anesthetics when avoidable. Formerly I used avertin or sodium amylal routinely.

Some surgeons believe that the too rapid escape of bile during operations upon the jaundiced patient may cause a disturbance to the liver by the sudden changing of the existing pressure. This has been likened to the relief of pressure upon the ureters and kidneys following catheterization, suprapubic drainage, or a one-stage prostatectomy. It is believed that such sudden relief of pressure may result in enlargement or rupture of the capillaries of the portal system, which may be a factor in postoperative hemorrhage or subsequent hepatic insufficiency. Drainage through the cystic or common duct is advisable in jaundiced cases in which operation is imperative and liver retention high. Years ago, before we thoroughly understood the modern studies for liver retention, the late Dr. J. Chalmers DaCosta always practiced drainage of the common duct or cystic duct in disease of the biliary tract which had existed for a long period of time because of the probability of extensive liver damage.

The value of glucose, either intermittently or continuously, following operation, has been emphasized.

Snell has administered 10 to 20 grams of sodium racemic lactate in 1000 c.c. of glucose for hepatic insufficiency but concludes that good results are the exception rather than the rule. He deems the procedure inadvisable because of the danger of alkalosis from failure of the renal excretion of excess base following the use of sodium racemic lactate. The administration should be confined to cases in which improvement has not followed the usual method of treatment.

Blood chemistry must be taken the day after operation and routinely thereafter for the estimation of blood urea and blood sugar. There will be an occasional hyperglycemia which may require insulin over a short period of time. Persistent vomiting following operation will occasionally be found due to a temporary hyperglycemia.

Hemorrhage can best be combated by the use of small blood transfusions repeatedly given. Ceanothin, thromboplastin, or horse serum may be used.

Patients should not be deprived of fluid by mouth over a long period of time. If there is no associated vomiting, water—preferably hot water—is given in tablespoonful doses after the patient is thoroughly out of the anesthetic. It can be started early when spinal anesthesia has been

administered. This water is increased rapidly, providing there is no vomiting, and to it is added early hot tea sweetened with sugar.

Glucose is not absorbed by bowel. Three pints of tap water by enteroclysis is frequently given. To this may be added fluid administered intravenously or by hypodermatoclysis.

In cases of operation upon the biliary tract in which drainage by tube has been instituted fluid may be given by the drip method through the drainage tube—a procedure advocated by McArthur.

Time will not permit discussion of postoperative distention and dilatation of the stomach or ileus, for which conditions the Wagansteen apparatus has been of inestimable value. Some surgeons decry the use of morphia following operations upon the biliary tract, preferring cibalgin or dilaudid (administered in about half the usual dose of morphia). The latter has proved most useful for those patients who seemingly are nauseated by the use of morphia.

One should always strive for the prevention of disease rather than its cure. Shuman's remark concerning the physiology of the liver is especially impressive; namely, that the liver is aided in its function by a general massage from above, laterally, and below, performed by the diaphragm and to a lesser degree by the peristalsis of the stomach and intestines; also by the acts of stooping, bending, and twisting. He aptly quotes that "the outside of a horse is good for the inside of a man" because of the exercise and shaking of the liver while riding. The liver of the sedentary individual is torpid. A word to the wise is sufficient.

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ABSTRACT OF DISCUSSION

MOSES BEHREND (Philadelphia): When Dr. Owen made the statement that he does not operate on acute cases he doubtlessly meant acute jaundiced cases. I believe he did infer that he would operate on empyema of the gallbladder. No case of acute empyema of the gallbladder should be operated upon immediately. The danger of perforation is slight and it is not necessary to operate at once. While waiting for the opportunity to operate order physiologic rest—and that means absolute rest, not partial rest—but absolutely no food or drink by mouth. That will tend to reduce any inflammation of the gallbladder.

In jaundiced cases the administration of calcium is absolutely worthless; blood transfusions and intravenous glucose are probably the best means of preventing hemorrhage. The preferable anesthetic to use in any upper abdominal condition is spinal anesthesia. One should not be afraid to use spinal anesthesia in any gallbladder case or in any condition in the upper abdomen. Spinal anesthesia saves instead of destroys lives. If given properly and in the proper intraspinal space there is no question that it is the ideal anesthetic for all

upper abdominal conditions. If I were operated upon for a gallbladder or gastric condition I would insist upon spinal anesthesia. I have had 1 fatal case following cholecystectomy in nearly 31 months and I attribute that low mortality to spinal anesthesia and preliminary blood transfusions. I am not including cases of jaundice, carcinoma of the pancreas, or carcinoma in any part of the biliary tract; but I am referring to cases requiring cholecystectomy only. Cholecystectomy should not be performed if jaundice is present on account of the oozing that will follow. Why do a major operation if it is not necessary? Drainage of the common duct is the proper procedure in all jaundiced cases. There is no class of cases in surgery more dangerous to operate upon than cases of jaundice.

S. DANA WEEDE (Philadelphia): Jaundice produces liver damage; therefore, the longer jaundice exists the greater the liver damage and hence the higher the mortality and the morbidity. The important feature is to differentiate intrahepatic jaundice from obstructive jaundice. There are 2 simple tests. One is the passing of a duodenal tube and the recovering of bile. If bile is recovered there is usually not an obstructive jaundice. The second is the examination of the stools for bile. If there is obstructive jaundice it is unusual to recover bile in the stools, so that delay in operation is not warranted and the patient should be operated upon immediately after proper preparation.

There are those who ask why we should operate on patients with carcinoma of the head of the pancreas? Moynihan has said that there are very few surgeons skillful enough to make an accurate diagnosis always. Unfortunately too many patients with a stone in the common duct have been diagnosed as cases of carcinoma and have gone without relief. Furthermore, a patient may have carcinoma of Vater's papilla, which can be relieved by resection. Even though it is carcinoma of the pancreas, the surgeon can adopt one of several procedures to return the bile to the intestinal tract and relieve the patient of very distressing symptoms.

A cardiovascular examination is certainly important in preoperative care, but a bad myocardium need not necessarily be a contraindication to operation because in many instances it is the result of continued infection and toxemia from retarded liver function. There is a patient, age 76, in the hospital now with acute empyema of the gallbladder with perforation. She developed a bilateral parotitis and had 8 or 10 very severe myocardial attacks. At operation a drain was put in. That woman has been better than she had been for years and has not had any myocardial attacks since. As there are no tests that indicate accurately which patient will bleed and which will have liver function failure, we must use all methods in order to give each patient the best preoperative preparation. These methods have been outlined by the essayist—the high carbohydrate diet, infusions of salt solution and glucose, transfusions, and calcium chloride. Although there is no evidence that calcium chloride will reduce the coagulation time, it does seem to aid hepatic function and for that reason should be given.

Since hemorrhage is the likely thing, the most meticulous care should be exercised in ligating even the smallest vessels. If the gallbladder is removed the cystic artery should be ligated separately because of the frequency with which the ligature slips off the cystic duct. This would result in secondary hemorrhage if the artery and duct were ligated together. If cholecystoduodenostomy or a gastrostomy is done, the individual

vessels should be very securely ligated and entire dependence on a running suture should not be relied upon to control the bleeding. At the time of operation trauma produces more and more liver dysfunction, so that the tissue should be treated with the greatest care and gentleness and with the least possible trauma.

Postoperatively, liver function must be maintained. Postoperative treatment to maintain liver function should be the same as preoperative treatment. The patient most likely to bleed is the one with purpuric spots. A tourniquet applied to the arm will cause the appearance of purpuric spots below the tourniquet. In this type of patient the thrombocyte count probably will be low. If transfusion is given, the donor should fast for at least 6 hours. If he has had a large meal his blood carrying digestive and metabolic substances will increase the burden on the recipient's liver functioning capacity.

As to pruritus, it is thought that the itching is the result of destroyed liver cells. Insulin has been given, also calomel in 2-grain doses without a cathartic following. Sodium thiosulphate and ergotamine tartrate have

also been used with considerable success in some instances.

The accumulation of bile around the liver may produce downward displacement of the liver with pressure on the vena cava, and throw the patient into severe shock. Prompt relief by drainage is indicated. A most unhappy complication is the biliary fistula, which could often be prevented. Frequently the surgeon does not determine whether there are stones remaining in the common duct or in the hepatic ducts. He should insert his finger in the common duct as the tip of the finger is far more sensitive than the tip of a probe.

Duodenal fistula is one of the most unfortunate complications. Walters described 2 syndromes that may occur in the postoperative gallbladder patient. In the first the bile becomes thinner, loses its color, and becomes less in quantity. There is an associated lessening of the quantity of urine until finally suppression occurs and the patient develops uremic coma. In the other syndrome the amount of bile and urine is increased. These conditions are treated with infusions of glucose and salt solution.

PITYRIASIS ROSEA*

Clinical Varieties and Etiology

THOMAS BUTTERWORTH, M.D., READING, PA.

Since Gibert's classic description of the macular variety in 1860, the conception of pityriasis rosea has been enlarging gradually until today it is known as somewhat multiform in its clinical expression. The variations exhibited by the disease are distinctive but never sufficient to mask the characteristic appearance of the oval and circular plaques over the trunk and adjacent parts of the extremities.

Variations in the character of the herald or primitive patch are few. Gigantic herald patches have been reported by Allen, and Greenhouse and Cornell. In the former's case, the primary plaque occupied half the chest wall. Most commonly, the herald patch is located on the chest, shoulders, waist, or hips, but, as tersely pointed out by Klauder, it may occur on any part of the body except perhaps the hands and feet. Almost always the herald patch is solitary, but there may be 2 or 3. In most instances, 7 to 14 days elapse between the appearance of the primary plaque and the widespread eruption of the disease although, in some cases, the interval is much longer. In one of Hallopeau's patients, the primitive patch existed 2 months, and, in the case of Greenhouse and Cornell, between 4 and 5 months prior to the appearance of the eruption on the trunk. On the other hand, the interval may be very short. A notable example is

the case of Friedman and Wright, in which a herald patch located on the face was followed in 3 hours by generalization.

The most common form of pityriasis rosea is the macular variety which may be classified as punctate, guttate, nummular, and circinate. The clinical features of this type are well known and need not be discussed.

Papular pityriasis rosea is frequently seen, particularly in the colored race, although scant mention of this type is given in textbooks. In most cases, the lesions are scaly maculopapules although in other instances the papules are well pronounced. The papules may be follicular or miliary and either small or large with a tendency to become confluent.

Urticarial pityriasis rosea is a rare form originally described by Vorner and later by Hallopeau, in which the lesions are considerably raised like an urticarial wheal and are accompanied by intense itching. Occasionally the disease begins as a disseminated urticarial outbreak with severe pruritus which assumes its typical characteristics after a few days. The urticarial character is always most pronounced at the onset of the disease: Vorner stated that the axillary and genital regions were areas of predilection.

Vesicles in pityriasis rosea have been noted by a number of authors. In one group of cases including those reported by Little, Colcott Fox,

* Read before the Section on Dermatology of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 3, 1934.

and Weber and Rattner, there were either deep-seated vesicles on the palms or soles or large clear vesicles about the fingers and toes. In the cases reported by Weiss, Lane, and Showman, and Becker and Ritchie, the disease began as a general papulovesicular eruption resembling chickenpox and later developed into typical pityriasis rosea. Sometimes the vesicles were situated on papules and were often oval in outline corresponding to the shape of the underlying papule. Wile's case is interesting in that papules were situated over pseudovesicles. Foerster and Adamson have noted especially the appearance of vesicular types in infants and children, but this is not in accord with the experiences of most dermatologists.

Bullous lesions have been described in pityriasis rosea by Blaschko, Wile, and Finnerud. In Wile's patient, the eruption was ushered in with bullæ involving also the oral, nasal, and vaginal mucosa and later becoming typical pityriasis rosea. Finnerud's case presented a vesicobullous eruption on the palms and soles.

Under the name pityriasis rosea pustulocrustosa, Kiess reported 2 cases of this disorder in which there were many pustular lesions. In the first case, the pustular stage followed a primary bullous stage, whereas in the second, the lesions were apparently pustular from their inception.

The occurrence of small red hemorrhagic points in the lesions of pityriasis rosea has been described by Wirz, Sweitzer, and Kogoj and Farkos. In the youngest lesions, there were but a few punctiform points whereas in the fully developed patches they were quite abundant. Wirz's case presented free-lying hemorrhagic points in healthy skin as well as in the lesions of the disease.

Under the name pityriasis rosea gigantea, cases have been reported by Darier, Pringle, and Klauder, in which plaques and circles as large as the palm occur symmetrically distributed on the body. The clinical characteristics and course of this type of pityriasis rosea correspond with those of the usual variety.

Pigmentation following pityriasis rosea has been noted by Duhring, Jamieson, and Whitfield. Michelson reported leukoderma following pityriasis rosea. The disease occurred on the tanned body of a medical student. As the scaling of the lesions subsided, white areas corresponding to the size of the patches remained. This type has also been referred to as pityriasis alba.

The typical distribution of pityriasis rosea is well-known and need not be discussed. Variations are more common than textbooks would

indicate. A number of cases have been recorded in which the eruption was generalized. In some of these, the hands and feet were involved, but these areas were more often exempt. Occasionally the face has also been spared in the generalized eruptions.

Localized varieties of pityriasis rosea occur more frequently. Cases in which the disease has been limited to one side of the body have been recorded by Szaboky, Moingeard, and Little. More commonly, the localized varieties are bilateral. Occasionally the eruption is localized to the extremities, in which event it is spoken of as inverted pityriasis rosea.

The axillæ and groins are areas of predilection for the localized variety of pityriasis rosea. In these regions, the eruption frequently forms confluent circinate patches with gyrate borders resembling eczema marginatum. Klauder considers pityriasis *circiné et marginé* of Vidal and the cases described by George Henry Fox and Moingeard as examples of this type.

Pityriasis rosea of the neck may occur as a localized disease or more commonly as part of a widespread eruption. Involvement of the face is much rarer, but a number of instances are recorded in which the disease began on or involved the face as part of a widespread eruption. Little, Moingeard, Photinos and Towle reported cases in which the lesions were limited to the face and neck.

Duhring, Colcott Fox, and Little have drawn attention to the occurrence of typical patches of pityriasis rosea on the dorsum of the hands and feet. The palms and soles may be the site of deep-seated, dusky red papules or scaly red plaques. The latter sometimes become confluent and produce universal redness and scaliness of the palms and soles. Typical scaly maculopapules may be interspersed with vesicles or the latter may be limited to the thin-skinned portions of the fingers and toes. Occasionally the palmar and plantar lesions are purely vesicular in character with deep-seated vesicles on inflamed bases resembling dyshidrosis. In Finnerud's case, vesicobullous lesions occurred on the palms and soles.

The eyelids and penis may be the site of pityriasis rosea in rare instances. Szaboky observed the eruption on the eyelids and Little and Howard Fox on the penis.

Horand, Adamson, Kumer, Haxthausen, and others have reported the involvement of the scalp in pityriasis rosea. The lesions on the scalp are not hyperemic as a rule or, at most, only slightly so and thus show themselves only as small scattered scaly patches corresponding

in size and shape with those elements observed on other portions of the skin. Pityriasis rosea of the scalp is considered unusual, but Haxthausen states that in children involvement of the scalp is an almost constant characteristic. The only recorded instance in which pityriasis rosea involved the scalp in an adult was Gager's case in a female, age 35.

Involvement of the mucous membranes in pityriasis rosea has been noted by Hazen and Wile. In one of Wile's patients, there were bullæ on the oral, nasal, and vaginal mucosa, whereas in a second case, there were small erosions on the buccal mucosa and at the outlet of the vulva.

Persistence of the lesions was first described by Duhring and later by Jamieson, who suggested the name "pityriasis rosea perstans." There is a general impression that the vesicular and localized varieties are of somewhat longer duration than the usual type.

Relapse occasionally occurs in pityriasis rosea. Szaboky saw a case in which the eruption disappeared in 6 weeks and then recurred to last another 5 weeks. In Graham Little's patient, the disease lasted 5 weeks followed by a month's freedom and then there was an acute recurrence lasting 5 weeks. Weiss added 2 cases in which the disease appeared to come and go for 3 years.

ETIOLOGY

The exact cause of pityriasis rosea is not known, but many theories have been advanced to explain its etiology. Certain facts which seem to point to an infectious origin of the disease will be emphasized.

Pityriasis rosea runs a definite course with a special incubation period, a period of evolution, and a period of decline. Its epidemic nature with greatest incidence in the spring and fall is well-known. Two or more cases occurring in the same household have been recorded on more than 20 occasions. The occurrence of constitutional symptoms such as malaise, fatigue, loss of weight, general adenopathy, sore throat, and fever may be cited also as evidence in favor of an infectious origin.

The rarity of recurrence has been interpreted as evidence of an acquired immunity to the causative organism of the disease. This argument is weakened by a number of case reports of second and even third attacks. Such instances raise the question as to whether this apparent immunity may not be based solely on the laws of chance, for pityriasis rosea is still an uncommon disease.

A number of clinical observations lend fur-

ther support to the infectious theory. Herald patches have been noted as developing in a gunshot wound, at the site of a flea bite, in a healing vaccination wound, following impetigo, and as a sequela of paronychia. It is assumed that the infecting organism entered the body through these wounds.

Attempts to transmit the disease have been made by a number of workers through the inoculations of material derived from active lesions or organisms obtained from these by culture, but, with the exception of Wile, all those who have attempted to do so have failed. Wile raised a blister over the herald plaque by means of a cantharides plaster. By using this fluid, he succeeded in producing an atypical form of the disease in 3 patients who were inoculated percutaneously and in a fourth by scarification. Attempts to reproduce Wile's results have been unsuccessful.

At present, the avenue of infection is as obscure as the nature of the infecting organism. Two theories are held: First, that the portal of entry is the tonsils and lymphatic structures of the throat; second, that the portal of entry is the herald patch. Able dermatologists support each viewpoint. In the light of present knowledge, it is possible that Lassar's original hypothesis is correct. He first suggested that underclothing plays a definite part as carrier of the disease, a theory supported by the sites affected and the experience of many capable observers.

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ABSTRACT OF DISCUSSION

EDWARD F. CORSON (Philadelphia): This interesting condition may be diagnosed sometimes at a glance and treatment may not be necessary. The follicular papular form is the commonest variation from the ordinary type. Infrequently one side is favored rather than the other—sometimes almost a zosteroid form. Although the diagnosis is usually the A. B. C. of dermatology, occasionally the eruption in one of those cases is overlaid by a dermatitis. As the general practitioner frequently finds difficulty in separating syphilis, scabies, and tinea from pityriasis, and as in 2 of those conditions sulphur is frequently used, the cause of this dermatitis, through which the almond-shaped macules may faintly show, is easily determined.

The most interesting part of this disease is the search for etiology. This spring 3 patients volunteered the information that they thought the outbreak came from new suits of underwear they had recently purchased and worn. Frequently there are general symptoms, which immediately precede the appearance of the outbreak, the outstanding one being sore throat. That overbalances the external theory, especially since no causal organisms have been found definitely in the scales. Some have been reported by the Viennese school, but never in this country so far as I know. It is a disease which may be much more common than is

realized. There may be a form without eruption, or carriers of the causative organism may exist without exhibiting the disease themselves.

What shall we say to the patients who are naturally much concerned with this outbreak? Shall we speak of it as a contagious disease, or ascribe it to one of the other causes? As the contagiousness is so slight, I am disposed to speak of it very lightly and to suggest to the patient that it comes from some intestinal disturbance rather than to state that it is probably an infection.

DR. BUTTERWORTH (in closing): There is a distinct tendency to give the name of pityriasis rosea to a whole

group of toxic conditions in which there are macules on the trunk that tend to disappear within a few weeks. Heavy metals, particularly arsenic, bismuth, and gold, may produce eruptions that are clinically indistinguishable from pityriasis rosea. This is a group reaction rather than a specific action of the drug; that is to say, a particular way that an individual reacts as was shown by Rattner's case. He treated a case of lupus erythematosus with gold, and the patient developed a typical eruption of pityriasis rosea. Rattner waited a few days until the eruption disappeared and then substituted bismuth therapy, and in a day or so the patient again broke out in a pityriasis rosea-like eruption.

THE DIAGNOSIS OF ECTOPIC PREGNANCY*†

An Analysis of 145 Consecutive Cases

DAVID B. LUDWIG, M.D., PITTSBURGH

Ectopic pregnancy is frequently spoken of as tubal pregnancy for, with few exceptions, the developing embryo, in the beginning, is located in the tube.

As early as 1851 Professor Charles D. Meigs of Philadelphia in his book, *Woman, Her Diseases and Remedies*, gave to the medical profession a clear and vivid conception of the findings, symptoms, and gross pathologic conditions existing in ectopic pregnancy, so descriptive that his teachings could well be followed today. At that time there were, however, no cases operated upon and thus the mortality rate was very high. Even as late as 1890 this condition was considered fatal in the vast majority of cases, and textbooks of 35 years ago quoted a mortality of 40 per cent to 50 per cent. Astounding surgical evolutions have been attained in the past 50 years and no surgical emergency has received more attention than that of ectopic pregnancy; yet there remains a comparatively high rate of diagnostic error.

The frequency of ectopic pregnancy is given variously as 1 in 500 to 700 births. The work of Schumann has given the best conception as to its incidence. For the year 1918 he secured from the records of all Philadelphia hospitals the number of ectopic pregnancies and from the Bureau of Vital Statistics the number of births during the same year, and states the incidence of ectopic pregnancies as 1 to 300 full-term pregnancies. However, this would not be uniformly true, for, first, it is well known that a greater proportion of ectopic pregnancies occur

in large cities inasmuch as salpingitis, a predisposing factor, is more prevalent; second, the proportionate number of children per woman in the cities is less than in rural districts.

Some authors divide ectopic gestations into unruptured and ruptured. This classification has always been and will forever continue to be extremely disproportionate, as one's list of unruptured cases is quite small. An excuse which one may present for his ability to diagnose so few unruptured cases is that very few reach him unruptured; yet were he to see them earlier, the result would be an increase in the percentage of errors, as the symptoms and signs are so slight and misleading as to make the diagnosis largely a matter of chance.

Certain points have been summarized in the history, symptoms, diagnosis, and treatment of ectopic pregnancy in 145 consecutive cases in the services of the Columbia and Allegheny General Hospitals from January 1, 1921, to July 1, 1934. These cases divide themselves clinically into 3 classes: (1) Slight abdominal hemorrhage (43 cases); (2) moderate abdominal hemorrhage (48 cases); and (3) profuse abdominal hemorrhage (45 cases). There were 9 unruptured cases.

AGE

This incident may occur at any time between puberty and the menopause. The youngest patient of our series was age 20; the oldest, age 41. The average age was 31½. There were 96 women, or 66 per cent, between age 25 and 35, which percentage coincides with that of women having uterine pregnancies in this age group. Thirty-seven patients, or 25 per cent, were primiparæ; 13 patients had never had children but had had 1 to 3 miscarriages each. The

* Read before the Section on Surgery of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 2, 1934.

† I wish to express my sincere appreciation to Dr. S. A. Chalfant with whom I have had the opportunity to observe, study, and treat clinically the majority of these patients.

remainder, 95, had had a total of 272 children, an average of almost 3 children per patient. The most prolific had had 15 pregnancies, 12 children and 3 miscarriages. The grand total of 145 women had given birth to 272 children—an average of 1.9 per woman—and there had been 88 miscarriages, making an average of 2.5 uterine pregnancies per woman.

SIGNS AND SYMPTOMS

Pain.—Pain is the most common and usually the earliest symptom. It is described in great variation as follows: Mild, dull ache, cramp-like, colicky, tearing or cutting pain, or at times pressure or a feeling of weight in the bladder, rectum, or back. The severity of the pain is relative to the extent of rupture and amount of bleeding into the peritoneal cavity. The importance of referred pain is emphasized by Rubin as follows:

"In ruptured ectopic pregnancies with extensive hemoperitoneum, bilateral shoulder pains are present but affect more intensely the shoulder corresponding to the side of the tubal rupture. When the hemorrhage is not extensive and is confined to one side, the shoulder pain will indicate the side of the rupture."

Reflex pain, from subdiaphragmatic irritation due to the free blood in the peritoneal cavity, was present in many of the more tragic cases. Many patients experienced pain referred to the epigastrium, gallbladder area, chest, back, rectum, or down the thighs.

Vaginal Bleeding.—Vaginal bleeding, another early and important symptom, was present in 124 cases (85 per cent) of this group.

The length of time which elapsed between the last regular menstrual period and the beginning of vaginal bleeding, indicative of pelvic disease, was from 8 to 98 days. Sixteen per cent of the patients who had vaginal bleeding began before the regular menstrual period, and 84 per cent ranged from the date of the regular expected period to 10 weeks later, the average being 40 days from the last regular period.

The vaginal bleeding varies as to amount and regularity. In many cases there is a continuous flow, in others an intermittent flow, and in a few there is merely a "show."

If closely observed the discharge is quite characteristic and assists in diagnosis, as most frequently it is a dark fluid blood with shreds of membrane in some cases.

There seems to have been a fairly constant ratio between the amount of pelvic disturbance and the occurrence of continuous bleeding. In 7 cases there was profuse vaginal bleeding, thus adding difficulty to the diagnostic picture.

Relation of Pain and Vaginal Bleeding.—In 76 cases the vaginal bleeding began from a few hours to a few days after the onset of pain. Exceptions were 21 cases in which no bleeding occurred, 22 cases with bleeding and pain at the same time, and 26 cases in which bleeding preceded pain by 7 hours to 2 weeks. The elapsed time between the onset of pain or beginning rupture and admission to the hospital varied from a few hours to 10 weeks, averaging 20½ days. Those patients with profuse abdominal bleeding were admitted within a few hours to 2 days, although their histories would indicate that many of them previously had had repeated moderate hemorrhages. Ectopic gestation should always be suspected in cases presenting a history of vaginal bleeding following a delayed or missed menstrual period, especially when preceded by, occurring with, or followed by pain, however mild.

Blood Picture.—The blood picture (red blood cells, white blood cells, and hemoglobin) is an important aid in the diagnosis of this condition. Of these the most important is the leukocyte count, for a high count is indicative of free blood in the abdominal cavity not only in cases with large amounts but also in cases with moderate amounts of intraperitoneal hemorrhage. The leukocyte count is especially high if taken shortly after hemorrhage; thus, it becomes extremely useful in patients with sudden sharp pain in the lower abdomen even though there has been no amenorrhea or irregular bleeding. Patients are much more prone to call the doctor on account of severe pain than for any type of bleeding. No single finding should be depended upon in making a diagnosis of ectopic pregnancy. First, an accurate history of symptoms should be secured, and to this should be added the signs and laboratory examinations. Of the 93 patients in the second and third classes (patients with moderate and profuse abdominal hemorrhage), there were 58 patients, or 62 per cent, with a leukocyte count of 12,000 or over, and 31 patients, or 33 per cent, with a leukocyte count of over 16,000, the highest count being 33,000. In 9 unruptured cases the blood counts were practically normal. A summary of the blood findings is presented in Table I.

In most of the cases of profuse intraperitoneal hemorrhage the pallor of the patient was out of proportion to the hemoglobin reading and the red blood cell count, especially in those cases seen shortly after the hemorrhage (before the blood had sufficient time to become diluted). The patient is shocked out of proportion to the amount of blood loss, due perhaps as much to

TABLE I
Blood Findings in Ectopic Pregnancy

Number of cases	Amount of hemorrhage	Red blood cells (millions)		White blood cells		Hemoglobin (per cent)	
		Range	Average	Range	Average	Range	Average
43	Slight	3.3 to 4.9	4.22	4,650 to 18,750	9,500	55 to 92	76
48	Moderate	2.7 to 4.5	3.56	6,000 to 19,700	12,410	50 to 85	64
45	Profuse	1.23 to 3.8	2.734	8,350 to 33,000	16,120	30 to 70	51

the irritation of the peritoneum from the spill of blood as from the blood loss. In cases with recent moderately profuse vaginal bleeding this must be considered as a partial cause of reduction of the red blood cell count and hemoglobin reading.

Pulse and Temperature.—Immediately or very soon after a severe hemorrhage the temperature is normal or subnormal; closely following this there is a reactionary slight rise in temperature. The temperature in the various cases ranges from normal to 103° F., depending upon the amount of hemorrhage. The pulse varies in rate from 80 in slight bleeding cases to 140 in profuse bleeding cases.

Signs and symptoms of pregnancy, such as morning nausea and breast changes, were rarely observed. Nausea and vomiting were the complaints of many patients but they usually occurred at the time of, or following, an acute attack of pain.

TESTS

Blood Sedimentation Test.—The sedimentation test is of considerable value in differentiating an ectopic pregnancy from an acute or a subacute inflammatory process of the pelvic structures. A sedimentation time of less than 30 minutes is almost always indicative of an acute inflammatory process except in cases of infected hematocele, whereas a sedimentation time ranging from 30 to 60 minutes is indicative of either a subacute inflammation or ectopic pregnancy with the balance of interest centered upon the former. A sedimentation time of 60 minutes or over highly favors ectopic pregnancy.

Aschheim-Zondek Test.—The Aschheim-Zondek test was employed but rarely. It should be of considerable value in those cases in which intra-uterine pregnancy can be ruled out and the problem in question is either an ectopic pregnancy or other adnexal processes.

VAGINAL EXAMINATION

Vaginal examination should be done with a minimum amount of pressure and manipulation. In many of the profuse bleeding cases, diagnosis

can be made without a vaginal examination. The cervix in some cases is found to be softened, and occasionally there is a bluish discoloration. In many cases, upon motion of the cervix, there is exquisite tenderness on the sides and posteriorly. If acute salpingitis can be eliminated, this sign is highly suggestive of ectopic pregnancy, especially if made early, even though the mass is scarcely palpable.

The uterus may be displaced in any direction, depending upon the size and location of the ectopic mass. The uterus is usually slightly softened and in many cases slightly enlarged. In 9 cases the uterus was enlarged to the extent of a 2 to 3½ months' pregnancy.

Later examination reveals a full culdesac and a semisolid mass. Exceptions are cases with slight hemorrhage and those cases in which the blood is prevented by adhesions from gravitating into the culdesac.

The cases most difficult to diagnose are those with slight hemorrhage. However, our errors were not so much in diagnosing ectopic pregnancies as in diagnosing other conditions as ectopic pregnancies.

Cullen's sign, a bluish discoloration about the umbilicus, was observed in only 2 instances.

DIFFERENTIAL DIAGNOSIS

The following conditions are the most prominent from a differential standpoint:

1. Acute or chronic salpingitis.
2. Threatened or incomplete abortion.
3. Acute appendicitis.
4. Intra-uterine pregnancy, with irregular uterine contractions.
5. Ovarian cyst with torsion of the pedicle.
6. Hemorrhage of the ovary.

On rare occasions the following diseases may be mistaken for ectopic pregnancy: Acute cholecystitis, nephrolithiasis, partial intestinal obstruction, fibromyoma of the uterus, and pelvic abscess.

In this series of 145 cases, other diseases of the pelvic organs were demonstrated in 50 cases as follows: Chronic salpingitis, 32; acute sal-

pingitis, 10; ovarian cyst, 2; tubo-ovarian abscess, 2; and extensive adhesions, 4. Of these 50 patients there were 19 who had never had an intra-uterine pregnancy, which is 50 per cent of the total of women who had not previously been pregnant. Other conditions encountered were: 1 case of acute and chronic partial intestinal obstruction, 26 cases of chronic appendicitis, and 7 cases of acute appendicitis.

Thirty-eight patients had had previous laparotomies as follows: Appendectomy, 18; shortened round ligaments, appendectomy, and removal of one tube, 8; salpingectomy for ectopic pregnancy, 10; drainage of pelvic abscess, 2.

From our observations and from a review of our findings, we subscribe to the views of others; namely, that infections of pelvic structures and postoperative and postinfectious adhesions contribute to the development of ectopic pregnancies. From our present knowledge of the migration and transplantation of endometrial tissue on and in other structures, it is reasonable to presume that the soil from a decidual reaction at times exists outside of the uterine cavity. This may be added to our already conceded causative factors.

There were 5 abdominal pregnancies and 2 interstitial pregnancies; the remainder were tubal pregnancies. There was 1 case of twin pregnancy. There were 37 abortions; the remainder were ruptures (mostly of the middle and outer third of the tube), 75 being of the left side and 70 of the right side. Ectopic pregnancy with abortion through the fimbria, in some instances, can well be placed in the most tragic type of cases. This is contrary to the views expressed by many surgeons. In 1 case of tubal abortion there was 1650 c.c. of blood in the abdominal cavity. In the only case in which operation was not done, necropsy revealed a tubal abortion with an even greater intra-abdominal hemorrhage.

OTHER OPERATIVE PROCEDURES

In the course of removal of the ectopic mass with a portion or all of the tube, other operative procedures were performed. In 63 cases the appendix was removed—30 as a prophylactic procedure, 26 for chronic infection, and 7 for acute infection. Some of these were due to the fact that the appendix had been in contact with the ectopic mass or with infected blood clots. In 26 cases the other tube or tube and ovary were removed. In 15 cases vaginal plastic work was done, in 3 a myomectomy, in 4 a hysterectomy for fibroids, and in 1 a hysterectomy on account of excessive bleeding in uterine rupture. In 1 case a herniorrhaphy was done and in many cases the cervix was canterized.

In 18 cases vaginal drainage was employed and in 16 cases stab-wound drainage. Posterior colpotomy to aid or to substantiate the diagnosis, or to facilitate in the employment of drainage was done in 31 cases.

MORTALITY

One hundred and forty-one patients were treated by abdominal operation, and 3 patients by colpotomy (with removal of much old clotted blood) and drainage. One patient died following laparotomy, 1 following colpotomy and drainage, and 1 on whom no operation was performed. This last death occurred in a patient whom we had not considered in a dangerous condition, although the loss of blood had been considerable. An attempt was being made to improve the preoperative condition. Suddenly there was additional hemorrhage, and she died in a very few minutes. At necropsy the abdomen contained a vast amount of blood, both fluid and clotted, mostly fluid. The other 2 patients treated by posterior colpotomy and drainage had very stormy convalescences. The total mortality in this series was 3 cases (2 per cent). The cause of death in both operative cases was general peritonitis.

This unusually favorable series must have depended somewhat upon good fortune, although the average operative mortality in ectopic pregnancy is but 4 per cent. Two factors in favor of the operator are: First, the youth of the average patient; second, the good physical condition of the majority of the patients at the time they are overtaken by the accident of ectopic gestation.

PREOPERATIVE TREATMENT

The treatment of serious cases prior to operation is as important as the operative treatment. It is quite likely that the rupture occasionally may take place (with death of the fetus and slight hemorrhage) with recovery and without any knowledge of what has occurred.

It is quite logical, if the patient is in the hospital or very close and can be quickly transported, to advise immediate operation, but what is to be advised if the patient is 20 to 60 miles from the hospital and is in a state of shock? This condition may confront the attending physician.

The first and most important agent is morphine, given in sufficient doses to quiet the patient and decrease the respiratory and pulse rates. As much as one-fourth grain should be given hypodermically. Doses of one-sixth to one-fourth grain should be repeated every 2 to 4 hours until the patient's condition warrants

her removal to a hospital. Other treatment requires no special emphasis. In all cases of recent extensive abdominal hemorrhage intravenous medication is not advised unless given during operation or at a time when the surgeon is prepared to operate immediately.

BLOOD TRANSFUSIONS

In some cases blood transfusions are necessary and extremely beneficial. Of 145 cases, 19 were transfused prior to operation, an average of 500 c.c. per patient; 10 during operation, an average of 650 c.c. per patient; and 9 following operation, an average of 575 c.c. per patient—a total of 38 patients. In 1 of these cases autotransfusion was employed by utilizing 1150 c.c. of blood recovered from the abdominal cavity. An important precaution, if a patient is to be transfused while under an anesthetic, is the infusion of 10 c.c. of blood 1 or 2 hours prior to anesthesia and the observation of any reaction.

OPERATIVE TREATMENT

The treatment is surgical. There is a difference of opinion, however, in the more serious cases as to whether operation should be immediate or delayed until the patient has had opportunity to recover from shock, hemorrhage, and acute anemia.

Welton of Brooklyn in an article, "The Time for Operation in Ectopic Gestation," discusses the extreme importance of frequent blood pressure readings, the blood pressure being an index as to the time for safe operation.

Nine cases of profuse hemorrhage were treated as follows: The blood pressure readings and the quality of the pulse (principally the former) were utilized to indicate the time for operation. Liberal doses of morphine or pantopon were given. In 14 to 20 hours the blood pressure ascended from a low of 55 systolic to as high as 90 to 105 systolic, at which time operation was performed. As soon as the abdomen was incised, blood transfusion was started. Five hundred to 750 c.c. of blood was given to each patient, followed by 600 or more c.c. of 10 per cent dextrose. In all cases the blood pressure increased from 20 to 40 points during operation.

The question always arises as to the removal of blood from the peritoneal cavity. It is advisable to remove the blood as it may be or may become infected, resulting in the formation of intestinal adhesions and further interfere with convalescence. In removing the blood from the abdominal cavity it must be borne in mind that in some cases much blood is found in one or

both kidney pouches, occasionally even more than is found in the pelvic cavity. The blood pressure rises and the volume of the pulse is better immediately following operation. These improved conditions are due in part to the removal of blood from the abdominal cavity. In those cases in which considerable blood remained in the abdominal cavity after operation, the post-operative temperature was a little higher from the fourth to the tenth day.

CONCLUSION

To lessen errors in the diagnosis of this condition, the physician must make a general survey of each case, including the history, symptoms, signs, and laboratory findings. In addition he must employ all means of differential diagnosis and exclude those conditions which simulate ectopic pregnancy.

The most significant signs and symptoms are: First and most important, sudden onset of pain or intermittent attacks of pain; second, irregular vaginal bleeding; third, a delayed or missed menstrual period; and fourth, sudden asthenia often out of proportion to the extent of the hemorrhage. There may be actual fainting or just vertigo, cold sweats, or an inclination to sit or lie down.

The signs and symptoms are set forth in this order to emphasize the importance of recognizing the majority of ectopic pregnancies before the patient experiences the sharp lancinating pain of a ruptured ectopic pregnancy (with extensive hemorrhage) so vividly described in the older textbooks.

Other points of importance are tenderness and muscular defense in the lower abdomen usually more marked on the affected side, with a soft, boggy, doughy mass in the culdesac. The blood count and especially a high leukocyte count, 12,000 to 20,000, is the outstanding laboratory finding. The history is more important than the physical findings, and many times the most important factors bearing on the cases are procured only by very close questioning.

Highland Building.

ABSTRACT OF DISCUSSION

P. BROOKE BLAND (Philadelphia): The symptoms of ectopic gestation have been outlined very systematically. Why do we continue to make erroneous diagnoses in spite of so many colorful signs? In no other form of obstetric trouble are there so many telltale symptoms and signs. These have been enumerated by Dr. Ludwig and they were all present in the 145 patients he studied. If such an array of suggestive diagnostic criteria is carefully analyzed, a mistake in recognition should be made very seldom.

The most common condition with which ectopic ges-

tation may be confused is some type of a uterine abortion, more especially a threatened abortion. It has been taught for a long time that the majority of cases of pregnancy arising outside of the uterine cavity have been treated once, twice, or several times before the true state of affairs is recognized. It is advisable, when confronted with a gynecologic problem, to think first not of the most likely condition, but always of the most serious one. My first thought upon encountering a case resembling abortion is not abortion but the more serious condition; namely, a pregnancy outside of the uterine cavity.

Posterior colpotomy is one of the most dependable recourses for the scientific practice of gynecologic surgery, particularly for diagnostic purposes. Dr. Ludwig, in his study of 145 cases, stated that he adopted this measure in 31 instances. I employ it in nearly all of these cases.

In Dr. Ludwig's series there were only 3 deaths. This is about one-half the normal mortality of ectopic

pregnancy, if one can speak of a normal mortality. This gratifying aspect of his work may be ascribed to 3 factors: Prompt recognition of the condition, prompt surgical interference, and—perhaps the most important—meticulous care in postoperative treatment.

A survey made of the maternal deaths occurring in Philadelphia covering a 3-year period showed that a large number of the women succumbed because proper after-treatment was not instituted, especially the intravenous administration of blood to restore blood loss. In the survey covering a period of 3 years, 1931-1933, there were 1717 maternal deaths; of this group 33 patients died from ectopic gestation. The ectopic mortality accounted for 4.6 per cent of the total number of maternal deaths. During this period there were 703 ectopic pregnancies in the various hospitals of Philadelphia. The 33 deaths reported from ectopic gestation showed a mortality of approximately 5 per cent, or almost twice as high as the figures reported by the essayist.

THE EARLY DIAGNOSIS OF ALLERGIC DISEASE OF THE RESPIRATORY TRACT*

J. A. CLARKE, JR., PHILADELPHIA

Bronchial asthma is only the most serious and the most dramatic manifestation of an allergic respiratory disease extending from the external nares to the alveoli of the lungs. The most constant characteristic of this disease is the swollen, pale mucous membrane. The edema varies from time to time. In the nose it is frequently associated with polyps or polypoid degeneration. In the trachea the lumen is frequently seen through the bronchoscope to close entirely during cough or expiration. Accompanying this edema there is an outpouring of a characteristic mucoid secretion which is extremely tough and sticky, rarely purulent, and rich in eosinophils. This mucus, coughed out of the smaller bronchioles, curls up to form the familiar Curschmann's spirals in the sputum.

The symptoms are sneezing, congested nose, nasal discharge, cough, expectoration, wheezing, and dyspnea. The disease is of long duration, but in children particularly very definitely self-limited. Working backward and assuming that asthmatics do not die more frequently than other individuals, we came to the conclusion a number of years ago that the duration of bronchial asthma was approximately twice the age of onset. This means that those children developing asthma before age 2 will probably be free from the disease at age 4 or 5, whereas, those in whom the onset occurs after age 5 may expect to suffer from the disease until some time in their teens.

In 419 persons over age 40 suffering from asthma, only 13 had had asthma in the first decade, in the majority of whom there had been such a long interval of freedom that their trouble in later adult life could well be considered as a recurrence rather than a continuation of the childhood disease.

Although a person suffering from this disease may not give any definite pathologic findings, this is the exception rather than the rule and probably occurs only in the milder cases of short duration. There is the pale swollen polypoid mucous membrane of the nose, often with a definite amount of secretion in the nasal sinuses. Were the nasal sinuses examined routinely at necropsy, allergic respiratory disease would be better known. The walls of the bronchi are thickened. The lumen tends to be narrowed rather than widened, and the mucous glands and the muscle coat are increased. Contrary to the general belief, this is a very consistent finding in bronchial asthma.

These pathologic findings are usually demonstrated easily during life. The allergic nose is coming to be recognized by most nose and throat specialists. The mucous membrane is pale and moderately swollen, and the lower part of the turbinates is often quite white and undulating with or without actual polyps. On transillumination, cloudiness may or may not appear. This procedure is of far less value in children than it is in adults due to the small natural size of the sinuses. Peribronchial thickening and increase

* Read before the Section on Pediatrics of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 3, 1934.

in the bronchial lymph glands are not easily demonstrable by physical examination. The latter at times causes dullness between the scapula and the spine, and the former may cause cogwheel breathing in the left lower lobe without any other sign of increase in pulmonary structure. These changes are much more easily demonstrated by the roentgenogram than by any other method of examination. Rarely is a normal report, either on the lungs or the sinuses of an asthmatic, received from the roentgen-ray department. This is so true that roentgenologists frequently report their findings in the lungs and sinuses as characteristic of bronchial asthma even though this disease has not been diagnosed clinically.

During the course of this disease true infections are likely to occur. These frequently start in the nose with what appears to be an acute rhinitis and descend to the trachea, bronchi, and lungs where they appear as a bronchitis, bronchopneumonia, or lobar pneumonia. Pyogenic sinusitis does occur, but not nearly as frequently as one would suppose. Pneumonias are usually of Type IV, and produce fever and leukocytosis, but are generally much milder than pneumonias in nonallergic persons. The diagnosis is frequently overlooked and the disease called either a bronchitis or an influenza. However, in a recent study of insurance statistics Dublin and Marks found that the death rate from pneumonia in asthmatics was twice as high as in normal people. This, of course, was based on adult statistics.

Probably all the pneumonias and many of the attacks of bronchitis are accompanied by pleurisy, which leaves permanent changes in the form of adhesions. These, in turn, interfere with normal respiratory activity and predispose to further attacks of bronchopneumonia and pleurisy so that, in a large percentage of asthmas of long standing, there is a permanent deformity of the lower lobes, with fibrous tissue formation and many pleural adhesions. This at times can be demonstrated on physical examination as slight dullness and moist inspiratory râles. It is more easily demonstrated in the roentgenogram where it resembles very closely the roentgenograms of bronchiectasis. True bronchiectasis is rarely seen in bronchial asthma; if the lumen of the bronchi is at all abnormal, it is narrower rather than wider. There has been only 1 true case of bronchiectasis in the Jefferson Hospital Clinic on Applied Immunology, and in Dr. Louis H. Clerf's series of cases of sinusitis and bronchiectasis there were none of bronchial asthma. It seems strange that 2 diseases giving almost

identical roentgenogram findings should be so mutually self-exclusive.

The course of this allergic disease of the respiratory tract runs over a period of years. Its first clinical manifestation is probably in the nose. Unusual sneezing, intermittent blocking, attacks of coryza, often of very short duration and unaccompanied by constitutional symptoms, and continued cough after simple colds are the first symptoms. These gradually increase in frequency and severity until the child is taken with a frank attack of dyspnea, which is so alarming and so spectacular that both the physician and the parents entirely forget the premonitory mild troubles which preceded it and state that the asthma came out of a clear sky.

Tonsillectomy is often performed shortly before the onset of asthma. At times the interval is so short that the operation is regarded as the cause of the asthma. When one asks why the tonsils were removed, the true story is revealed. The physician thought it might help the frequent colds, or the aggravating cough, or the mouth breathing—all early symptoms of allergic respiratory disease.

These mild symptoms are often attributed to nervousness and the child is taken from school because of irritability and restlessness at night, but they are really caused by an itchy or blocked nose. The younger children particularly are likely to be cross, fretful, quarrelsome, and regarded as having very bad dispositions.

Bronchitis may occur independently of allergic respiratory disease, but this rarely happens. Certainly a second attack of bronchitis should make the physician think of allergy. By bronchitis is meant any acute illness with a cough plus râles in the lungs. It has been suggested that all pneumonia is, in its origin, allergic. This opinion is open to very serious question, but the repeated attacks of pneumonia so frequently seen in children are probably complications of this long drawn out allergic respiratory disease. Although the prognosis in allergic disease in children is better than at any other epoch of life even without special treatment, nevertheless 3 to 5 years or more is a long time for a child to suffer from any disease. Frequent infections with more or less fever, long periods of cough, many attacks of dyspnea, more or less chronic nasal blockage, and sleep greatly curtailed interfere not only with the child's pleasure and comfort but with his mental and physical development. There is nothing more pitiable than a child age 12, with a barrel-shaped chest and the bony and muscular development of a child age 8 or 9, peevish, fretful, puffing for every breath, completely out of

harmony with his family and surroundings, and yet with an intelligence equal to or greater than his age. Such a child should recover spontaneously as far as its asthma is concerned. Physical development, however, is often permanently checked and the pleural adhesions predispose to further attacks of pneumonia. The psychologic effect of childhood invalidism with a normal or better than normal mental capacity is likely to leave him with a peculiar personality in adult life.

It is not the province of this paper to discuss in detail allergic treatment. Children with asthma are comparatively easy to treat. If allergic respiratory disease is recognized and careful treatment promptly instituted and diligently followed even before true asthma is diagnosed, these children can be restored to normal and the asthma entirely avoided. When first seen, the child should be as carefully studied as if he were suffering severely from asthma. The treatment should be followed conscientiously. Both the physician and the parents should realize that the child is afflicted with a disease which in the natural course of events would last many years. Although the elimination of a cat or a dog may relieve quickly and dramatically most alarming attacks of asthma, it does not cure the underlying allergic respiratory disease. Often a child is 90 or even 95 per cent improved by some such simple eliminative procedure. Do not be satisfied. Keep him under treatment until all symptoms have disappeared. Further recurrences are common. The child becomes sensitive to substances to which he formerly did not react.

All this should be explained to the parents. They should be advised to pay particular attention to any respiratory symptoms, frequent colds, coughs, sneezing attacks, *etc.*, and to seek medical relief again before distressing asthma reappears.

Pollen hay fever occurs in children, although it is more common after the tenth year of life. In most adults it is the only manifestation of allergy, their respiratory tracts being perfectly normal except during the pollen season. In children, however, it is more frequently only a small part of the general respiratory disease. Furthermore asthmatic children may have attacks of asthma due to pollen without the nasal and ocular symptoms of hay fever. The disease should be treated as it is in adults, although many children require much less pollen treatment than do adults. A child with allergic respiratory disease and asthma frequently develops hay fever as he becomes older. This is very favorable because as the hay fever develops the asthma usually disappears, leaving in the adolescent only hay fever.

I wish to outline one case report. C. Y. A., age 6, was referred because his physician had heard typical arthmatic râles accompanied by very mild dyspnea the night before. He had had many colds since birth, croup twice, and influenza 6 months before. The tonsils had been removed and there had been 2 adenoid operations. The mother stated that one night a year earlier he had wheezed but had had no dyspnea.

There was a moderate reaction to house dust, injections of which were given all that winter and repeated the next year. The first winter he continued to have colds, but no more wheezing. Six years later, in reply to a follow-up letter, his father wrote a disagreeable letter stating that his son had had no more trouble, was fine and healthy. He stated further that he did not believe the child ever had had asthma and hinted that the treatment, which he had considered expensive, had been entirely unnecessary.

In conclusion, asthma is preceded in most instances by a period of months or years during which it is quite possible to make the diagnosis of allergic respiratory disease. If treatment is instituted at this time, the majority of these children will never develop true bronchial asthma.

334 South Twenty-first Street.

ABSTRACT OF DISCUSSION

J. GIBSON LOGUE (Williamsport): Dr. Clarke makes a plea that we diagnose the allergic state before asthma has developed. That would be an ideal situation. One thing that is impressing itself upon me in regard to asthma in infants and children is that I used to have the idea that it was an uncommon condition but I know now that it is fairly common. Allergic testing should be done only by those who are competent.

KEEP THIS JOURNAL

It has been suggested that each member of the Society retain on his desk, at least until Jan. 1, 1937, this issue of THE PENNSYLVANIA MEDICAL JOURNAL. It contains the names, the numbers of the districts, and the home addresses of all Pennsylvania legislative representatives at Washington and at Harrisburg, the majority of whom will serve until the above date.

Contracted pelvis in white women are comparatively rare. The degree of contraction in the large majority of cases is such that spontaneous pelvic delivery is the rule. This is the most advantageous method of labor for mother and child. Cæsarean section, under ideal circumstances, carries a definite maternal mortality and must not be regarded as a panacea for obstetric complications. —(A. F. Maxwell, *Calif. and West. Med.*)

It is estimated that there are in United States, at any given time, 300,000 cases of cancer.—*Science News Letter*.

WILL AMERICA COPY GERMANY'S MISTAKES? *†

Results of Half a Century's Practice of Social Insurance in the Land of Its Inception

German labor economist offers new plan to avoid pitfalls of old one

GUSTAV HARTZ

FOREWORD

"The proof of the pudding is in the eating thereof."

If compulsory social insurances are desirable, as the powers that be in America to-day seem to think they are; if they are to be amplified and pyramided in the hope of improving the condition of the people as a whole by promoting peace, contentment, and security, there should be unmistakable and indubitable evidences of these highly desirable ends in the older countries of Europe, where social insurances originated and where they have been in actual operation over a long period of years.

This pamphlet is a brief résumé of 2 books written in German by Gustav Hartz, of Berlin—*Irrwege der deutschen Sozialpolitik*, published in 1928, and *Bankbuch Statt Almosen*, not yet in print. The titles translated mean *Errors of Germany's Social Politics* and *Bankbook Instead of Alms*.

Feeling that our legislators should be fully informed before committing themselves to irrevocable mistakes, the Pennsylvania Self-Insurers' Association persuaded Mr. Hartz to attempt a digest of his studies, covering half a century of practice in Germany.

First, a word about Mr. Hartz himself. He was a workman and his father before him was a workman. Orphaned at the age of 11 years, he was taken in by a peasant neighbor, who brought him up at the expense of the national welfare funds. His youth was one of grinding poverty and hard work. At the age of 18 years, he joined the clerks' trade union and rapidly rose to leadership in the organization.

Until trade unions were abolished under Hitler—an inevitable result of government management, which some of our own labor leaders do not seem to realize—he continued to be one of their outstanding spokesmen.

Mr. Hartz served through the war and received the Iron Cross for gallantry in action. He became a member of the Reichstag, and is at the present time connected with the largest publishing firm in Berlin.

His books are written from the workmen's point of view, not the employers', and they are based upon a study of facts and procedure which has given him a place as one of the foremost economists of his country.

He is not one of those who would tear down something and leave nothing in its place, but he has a plan of his own which he considers infinitely superior to social insurance, namely, compulsory savings. He proposes that every worker be compelled by law to save a certain percentage of his earnings, deposit them at interest in his own name in a bank under Government protection, and out of them take care of his own rainy days, create his own security.

The plan is quite ingenious and was receiving the serious consideration of the Nationalist party leaders, before they and all other parties were overthrown by Hitler and his Nazis.

Mr. Hitler himself seems to be well aware of, and to some extent in sympathy with, Mr. Hartz's ideas, for he is ruthlessly revolutionizing management and policies of the bankrupt funds, and has even abolished unemployment insurance for domestic servants, because he discovered that it, in turn, was abolishing domestic employment.

Of course, the same tendencies, if not in the same degree, must ultimately be felt in all other lines of

human endeavor, for whatever increases business hazard, dampens business enterprise.

We submit this pamphlet for the edification of those who are still able to subscribe to the fine old motto on the walls of our House of Representatives at Harrisburg:

"Ye shall know the truth, and the truth shall make you free."

WALTER LINN, *Secretary*.

Finance Building, Philadelphia, Jan. 10, 1935.

* * *

Almost exactly 50 years ago, the first law of modern workmen's insurance (social insurance) of the world came into force. It was the law referring to sick insurance for industrial workmen in Germany. Starting in Germany the idea of social insurance spread slowly, but ultimately found its way into many states. It became the basis and corner stone of modern workmen's social politics.

When, under the great statesman Bismark's chancellorship, social insurance was first introduced, he was, and not without reason, warned against taking this "jump in the dark," for nowhere did any experience in the matter exist.

Now, the introduction of social insurance no longer means jumping in the dark; we look back upon an experience of 50 years that points out the way to real social politics—and at the same time shows how they should not be made.

It is not advisable to give ear to the biased experiences of advocates of social insurance who, in many cases, draw profits therefrom, for there is no institution in all the world that is so much extolled and the praise of which is so little justified as social insurance. The cause for this praise is to be sought in its sound ideas and good purposes, which none but those devoid of all moral sense can dispute. Who could be hard-hearted enough to stand by and watch a fellow creature starve or drown, had he the power to save his life?

Help in need is a matter of course based upon Christian charity and morals.

No one can deny that this is the soil from which the idea of social insurance sprang; this, coupled with the consideration of clever, far-seeing statesmen who recognized in increasing poverty and dissatisfaction a danger for the state which they wanted to evade. The motive for the introduction of German social insurance was a very simple one which has, in its fundamental idea, become typical for all states, however much the outer causes and the strength of the single reasons may differ.

Owing to the rapid development of industry the number of industrial workers greatly increased and went on increasing. They crowded more and more into the big towns and industrial centers. The conditions of life were none too good. Wages were low and the workmen had no resources to fall back upon. The industrial proletariat, whose only capital was their capacity to work, had sprung into being. Should they lose their working power entirely, or even temporarily, their families would be faced by dire want. They would be destitute, have to rely upon the charity of their fellowmen, or would be forced to accept the help of the community. And the life of those who were lucky enough to have work was clouded also by doubts concerning the future.

Among these discontented masses the firebrand of the doctrines of Marx, attacking the state and the existing social order, was flung. Though the socialist laws forbade Marxist organizations and open propaganda, the doctrines crept in through a thousand channels, finding

* Written and translated for the Pennsylvania Self-Insurers' Association, Finance Building, Philadelphia.

† Reprinted by permission.

a fertile soil among the proletariat, and took on dimensions that threatened to endanger the state.

These state-political reasons were primarily decisive in the establishment of social insurance.

The state wished to relieve the workmen of the anxiety for future disability, when they might find themselves without earnings. It also wanted to put an end to their grumbling, to crush revolutionary aspirations; in short, to turn the workmen into contented citizens.

Added to this was a high sense of moral and religious duty, a feeling of charity, and the state leaders' sense of responsibility for the poorer classes.

To consider unemployment insurance an achievement of recent years, to call it the "crown of social insurance" is a mistaken view, for every social insurance is an unemployment insurance, whether the unemployment is due to illness, accident, early incapacity, old age, or to being out of work.

The introduction of social insurance has at all times and everywhere been caused by too dense a population that has got into trouble through loss of wages, and was unable to bridge over the time of waiting from its own private means. Whether that class came into existence through the colossal social transformation in Germany 50 years ago, or now, owing to the devastating economic world crisis brought about by unemployment, is of small importance.

It must be stated here that neither unemployment, accident, incapacity, nor old age created the necessity for the state's establishing social insurance. Ever since the beginning of civilization the lives of all humanity have been accompanied by such hazards—that of the millionaire as well as of the proletariat; of master as well as of man, of the head of the state and the crossing-sweeper, whereas social insurance is but 50 years old. I have never heard of a state introducing a sick and old-age insurance for millionaires or an unemployment insurance for manufacturers and other employers, although in all states there are many to be found who not only work without profit but even at a considerable loss. And yet sick and old millionaires have certainly been known to exist. Are these citizens of smaller value to the state leaders that they are passed over by social welfare?

The reason for this is of an entirely different nature. Those people have their resources, they are provided for by their own private means. Should the state make provision for sick millionaires or be willing to allow employers 50 per cent of their losses at times when they are making no profits, the statesmen supporting this plan would certainly be considered insane. This representation may seem rather crude but it shows the complaining sick, unemployed, invalid, or superannuated workmen the actual cause that led to the establishment of social insurance. The poverty of the masses!

Destitution in consequence of unemployment that befalls the impecunious is not really a social malady but rather a reaction, a fever, produced by a deep-rooted social disease, the masses' lack of means. Social insurance is as it were an injection against the fever, which however does not reach the actual seat of the disease. On the contrary frequent injections are harmful to the constitution and aggravate the disease. It may be proved easily that social insurance is not only caused by lack of means, but it even makes of it a social principle, aggravates and spreads it, makes it permanent.

In the past century the opinion prevailed—chiefly in Europe—that for capitalist development it was an absolute law of nature that capital should be concentrated in an ever-decreasing number of hands, until the state confiscated all property, placing the administration in the hands of "society" while on the other hand the number of the penniless constantly increased till all were poor. (This is the direct way to Bolshevism as it exists in present-day Russia, a deplorable end to social efficiency.)

Though the results did not prove this opinion to be correct and the number of capitalists of all countries

grew immensely in the last century, the number of the impecunious has, in consequence of the increased population, also constantly grown, giving food to the working classes' dream of everlasting poverty as their ir-retrievable fate.

Proletarianism! Poverty! These came to be literally worshipped. Honest workmen were made to believe it their solemn duty to be penniless. The words of the French socialist Proudhon "property means robbery" became their motto. Hate and envy of capital and capitalists flourished. The dissension of the classes grew into a class war that shook state and economics to their very foundations.

The instinct given man by nature to hoard for eventual times of need, which forms the basis of accumulating money and of acquiring property—upon this all culture and progress are founded—could only be completely killed by a communistic-socialistic vision in which people were not obliged to put money by out of a sense of self-preservation because they were shielded from the worst, from direct necessity, by social insurance.

The best counter examples are the United States where, until the great crisis started, communistic-Marxian ideas could not strike root among the working classes, simply for the reason that they were not "safeguarded" by insurance, but the workmen, having to provide for themselves, put money by for a rainy day and were therefore in the Marxist-communistic sense not proletarians such as had been carefully bred in Europe.

One might have supposed that in Germany, with the most widely developed social-insurance system in the world, a country where every workman was provided for in all contingencies of life—where the future mother was cared for and the first milk for the infant provided, where the funeral expenses or those the deceased left behind were not forgotten by the social insurance—a social upheaval would be least felt. No proofs need be given for the fact that the reverse actually occurred.

The state-political results expected of the establishment of social insurance, viz., making the workmen contented and loyal citizens, were not only negative, but they actually led to ends opposed to those anticipated.

No doubt these were not the only causes. Social insurance was however so far responsible that the state by relieving the workmen, to a great extent, from the burden of having to provide for themselves, posed as the great "benefactor." This made it the scapegoat upon which all demands, all discontent were thrust. The so-called self-administration of social insurance by the circles concerned did nothing to improve the situation. Discontent and grumbling did not cease; it grew. This arose from the social-insurance principle, which is only able to grant a minimum, and the odium of the insufficiency accompanying it, in connection with which the saying was coined: "too little to live on and too much for starving." From the very beginning the social insurance legislation was scoffed at by the radicals who called it "beggars' soup politics," and they never ceased demanding an increase of the allowances.

That these demands, viewed with the eyes of the workman, were socially justified, and that the name given it by the people was not far from the mark, may be gathered from the following figures.

The average old-age and incompetence annuity at the present time is approximately as follows:

Person insured	*M 28	[\$7.00]	per month
Widow's pension . . .	M 18	[\$4.50]	per month
Orphan's allowance . .	M 10	[\$2.50]	per month

Sick allowance amounts approximately to half of the earnings. The same stands for the unemployment insurance.

One can well imagine the feelings of a workman who for years, or for decades, has subscribed high dues but who rarely, in some cases never, made use of the insurances; now that he is ill or has lost his job he has to

* Exchange on gold standard 4.20 marks to the dollar.

manage with half the amount of his wages, or in old age gets an insufficient allowance. Must he not grumble at his beggar's dole?

On the other hand the principle of keeping the allowance on an insufficient scale must be maintained. For should the allowance equal the wages the consequences would prove ruinous to the workman's morale if in case of sickness he drew an equally high amount as that earned by hard labor.

These incompatible contrasts are bound to be followed by new struggles. By means of the social insurance "the fatherland was to be supplied with new, lasting guarantees for inner peace," instead of which more and more social struggles ensued, which influenced the formation of political opinions more strongly than anything else.

In states governed by parliaments with equal votes for all, the opposition, unembarrassed by responsibility, use social-political aspirations as the most efficient auxiliary for canvassing among the working classes. Whoever promises most gets the most votes and with them the greatest political power. Social democracy in Germany, until its collapse, owed a great deal of its success to social insurance. Social insurance was created in the struggle against social democracy. It became the strongest aid in forming political opinion in their favor. To use their own words, it got to be the "fourth pillar of their power."

All political groups happening to be in power have been, again and again, in consideration of impending elections, compelled to make concessions incompatible with reason and without economically sound foundation.

Though the greatest social crisis the world has ever seen may have been caused by many other factors, particularly by the war and the divers new phases brought about by it, that destroyed property accumulated in many generations, and by which a considerable part of social fundamentals were destroyed, the extent of the crisis in many countries did not become so great in spite of, but on account of, the existence of social insurance.

The social crisis has not been alleviated but, to the contrary, has been considerably aggravated by social insurance.

Woe to the state which imagines that crises may be alleviated or stopped by the introduction or the existence of a comprehensive system of social insurance! Sad disappointment awaits it. Every economic crisis swallows up the best organized social insurance and consumes its funds at both ends—at the end of the diminishing premiums and at the end of the increasing benefits.

The reason for this is chiefly that the greatest number of social insurances are not based on actuarial reserves as in the case of life insurance, but on a system of funds sufficient to cover the demand. They do not accumulate in long spaces of time a sufficient capital for future payments, but they live from hand to mouth. This method takes the premiums with one hand from the healthy and the employed and pays it at once with the other hand to the unemployed and the sick. Small reserves by no means improve this condition.

In the unemployment catastrophe the results were as follows: The number of unemployed increased with startling rapidity while that of the workmen still employed and paying premiums was continually diminishing. These premiums no longer sufficed and had therefore to be raised. They went up from 3 to 6½ per cent of the wages. In the most critical time, when benefits were being reduced and economic expenses increased, the wages were cut still more. To raise the premiums still further was simply impossible, and thus the allowances had to be repeatedly decreased. This procedure in each case increased the social tension.

The same methods had to be applied to sick insurance and old-age pensions, for the increasing unemployment resulted in a rapid diminution of premiums, while the expenses of the former remained almost the same and of the latter increased incessantly. The disability insur-

ance was insufficiently covered, due to loss of capital through the inflation and increased allowances. Having been reduced to the apportioning system, it lived from hand to mouth.

Business concerns were no longer able to pay the accident insurance dues. In some trade associations 50 per cent of the rates had to be obtained by levy of distress. The miners' pensions were repeatedly on the point of stopping payment. In the time of her hardest social crisis, social insurance was Germany's greatest inner trouble.

The saddest inner-political heritage the new German government was forced to accept was the social insurance, the most vital part of which was on the point of collapse.

Not only in times of economic stress does the apportioning system heighten the crisis, but also in times when economics are on the upward grade, for then increasing receipts and decreasing expenses form a great temptation for raising the allowances, besides which it may lead to many unnecessary capital investments.

It was in this way that the budget of the sick insurance rose in the years of apparent prosperity to the extent of 200 millions annually, reaching in 1929 the fantastic sum of 2,300,000,000 marks. In 1913 the budget of the sick insurance was still 660,000,000 marks. The same thing was to be found everywhere. In 1913 the budget of the entire social insurance system was 1,300,000,000 marks; in 1930, approximately 6,000,000,000 marks.

And this without the expenses of public welfare that finally bore the greatest part of the burden of unemployment. The entire social budget, namely, social insurance plus welfare, amounted to 2,100,000,000 marks in 1913, but in 1930 this budget reached 10,800,000,000 marks.

But when the economic crisis came the promised and vested payments could not be kept up.

In treating with this subject we should constantly bear in mind that social insurance is a legal contract, based upon premiums paid and guaranteeing definite benefits, whereas voluntary relief is always at liberty to adjust itself to circumstances.

In Germany, nevertheless, the legally reinforced social insurance contracts then had to be changed and partly cancelled, and the "legal rights" only continued to exist on paper.

Yet it was the legal claim which had been played up as the real progress in social security.

In true insurance, the amassing of adequate capital is only possible when an approximate preliminary calculation of the demands can be made, as in the case of life insurance, which is based on mortality tables and similar actuarial statistics.

The risk of unemployment cannot possibly be mathematically calculated. Unemployment is a risk actuarially unascertainable. The name unemployment insurance serves to mislead public opinion. It should be called unemployment reserves, where the persons concerned bind themselves to pay a certain contribution, and where they are told: If you are unemployed you may "perhaps" get so and so much, but maybe only so and so much. Fixed amounts can of course be promised, but should the sums be insufficient the premiums must be raised.

To establish an unemployment insurance and to promise an unemployed man certain fixed payments against certain premiums—any mathematician who goes into the problem and declares it sound ought either to be knighted or hanged. I should certainly vote for the latter proceeding, knowing him to be a swindler. Or else an "insurance" is made where every payment the single individual receives is strictly limited to the amount he has paid in, and then ceases. But then he would be just as well off if he himself saved his premiums.

In Germany the most firmly convinced fanatics on social insurance—such people do still exist and in most

cases they fare very well—are even now sure that unemployment insurance “is not an insurance really.” In 1927 this “crown of social politics” was introduced, with fixed premiums and fixed benefits. Three or 4 years later nothing was left and all that remains of unemployment insurance to-day is its name. Now the welfare principle is applied for the unemployed: Insurance allowance without examining the necessity, namely, with legal rights for 6 weeks only. Juveniles and working women have no legal claim.

The period for which benefits are made must of course be limited, as with a subscription of 6½ per cent of their wages not all unemployed can be supported. The greater the number of unemployed the lower the limit must be set. At first the allowances were made for 26 weeks, now for 6 weeks. As in this crisis unemployment frequently lasts for years, most of the unemployed no longer receive any allowance. The unemployed insurance at present scarcely supports one-third of the army of unemployed while the other part is supported by the welfare and the crisis centers. The same was the case before social politics had their “crown” put on. These institutions draw their funds from the state revenues.

Thus the communes had to bear the chief part of the burden the same as before. It is a curious fact that the communes tried to cast off the burden by finding work for part of the unemployed, until the latter had paid their premiums into the unemployment insurance, thus gaining a fresh legal claim. Then the same thing could begin all over again.

That is the curse of the evil done by trying to force something into insurance formulas that is uninsurable.

It is not in the least different with the sick insurance. The unevenness in the business level, the seasons, holidays, a change of work, failing health, and many other things contribute to bring about a noticeable change in morbidity. Since the sick insurance has been in effect, the average number of days of incapacity to work owing to ill health has risen from 5½ to 28 days, although health in general has considerably improved. In the strict sense of the word the sick insurance is no insurance either. From a technical and mathematical standpoint it is also quite unsettled in view of the moral hazard noted above.

This is clearly seen when considering that the individual insurance case, whether due to illness or unemployment, can be wilfully caused or extended. Where is the border line between illness and health, between mere indisposition and illness, between dread of getting ill and bluff? And if the insured person is really ill, where is the border line between ability or disability to work? How can the duration of an illness be fixed?

Illness is the most incalculable risk in existence.

Even the doctor is mostly, or at least frequently, unable to diagnose correctly and to distinguish pretenders and hypochondriacs from really sick people, or rather to tell whether a man is fit to work or not.

The same stands for unemployment. It can be ascertained if and when a man lost his job, but not whether he refuses work that is offered him—maybe because the work does not pay well enough—or whether he does odd jobs and thus finds other sources for earning money.

Also, the degree of diminished ability to work, due to an accident, can only be guessed at.

Of all the risks in social insurance only old age, death, and number of dependents can be exactly established. These are therefore the only cases in which an unobjectionable actuarial basis and an unquestioned legal claim are possible. Everything else is hazy and uncontrollable.

And on this unstable foundation was based a legal “claim!” Thus in millions of cases, wrong was turned into right and the gates opened wide to fraud.

I can here speak only briefly of these things. Additional material may be found in my books: *Irrwege der deutschen Sozialpolitik*, Scherl, Berlin, 1928; *Die Nationalsozial Revolution, die Lösung der Arbeiterfrage*,

I. F. Lehmann, München, 1932; *Bankbook Instead of Alms* (will appear shortly).

What is decisive in judging the merits or the worthlessness of social insurance is not brilliant theories interspersed with sentimentality and false humanitarianism, but the rougher language of practice. A few words on that subject:

The sick insurance provides the workman with medical attendance free of charge, with medicine and other necessities, and with an allowance.

Anyone will at first sight consider this a great blessing for the workman as well as for national health. The reality, however, is very different.

Dread of illness obsesses most people and this has been pressed into a system “illness made easy” by which the will to be well is strangled. The doctor is consulted a dozen times where once would be sufficient—the insurance pays. The prescribing of medicine, bandages, etc., is desired. When they have been obtained they lie about until they are no longer fit to be used and must be thrown away—the insurance pays. Besides it is nice to get something in return for the premiums paid year in and year out. Excessive “overdoctoring” is the result, and the will for recovery—the best aid to health—is stifled. Pretenders and hypochondriacs are bred and the use of medicine becomes excessive. The advertising of certain remedies and cures created a medicine craze. A few years ago it was ascertained that 4 times as much money was used for doctors’ fees and medicines for 35,000,000 persons in insurances as for 30,000,000 uninsured persons. This was stimulated, unthinkingly, by a desire to get sick money. An actual run on the sick-insurance allowance set in.

At first sight it seems improbable and paradoxical that a desire to obtain sick money that scarcely amounts to half the sum of wages should arise. It appears impossible that someone should, unless compelled by illness, forfeit his wages to get an allowance of half the amount. Unfortunately life does not run a straight course between health, working ability, and working possibilities on one hand, and illness and disability on the other, nor do people’s minds and actions.

In millions of cases, for example, when wages are being decreased, when work is scarce and work hours in consequence shortened, when there are fewer shifts, many holidays, work restrictions at certain seasons, outdoor work in frosty weather, 50 per cent of the wages is welcome. One objects to the work he is given, another does not feel like working, a third’s time is taken up by some family matter for which he would have to take leave of absence and forfeit his pay. In such cases the sick insurance comes in handy. Besides this, there is also deceitful trickery. Fictitious contracts are made, doctors are induced to prescribe medicine and instead of the medicine toilet soap, scent, etc., are handed out by the pharmacies.

How can this possibly be done, some ask. Those who consult doctors are supposed to be ill. That is all very well if the doctors were always able to detect whether the statements of the patients were correct. Often a diagnosis is impossible. He who would like to prove this should go to 10 doctors, complain of headache, pain in the limbs, rheumatism. All 10 will start a treatment for headache or rheumatism, without discovering that nothing whatever is the matter with the patient.

Besides that, all doctors are glad to get new patients, for do they not mean their livelihood?

Medical science has become a cheap article, and doctors have given up conscientious treatment. The genuine patient is neglected, is not given the necessary care.

The greater the mass consultations, the lower are the doctors’ fees. The amounts paid to panel doctors for each single case are deplorable. They are therefore compelled to resort to mass practice.

The sick insurance unrolls the entire problem of the medical man’s existence. Mass demand compelled a limitation in the use of medicines. Doctors must not prescribe what they consider good for the patient, they

only being allowed to give remedies entered in a book of medical regulations for insurance purposes.

The insured workman becomes a second-class patient.

Wages without doing any work—that is what the unemployment insurance amounts to—create in course of time aversion to work, and destroy the instinct for thrift.

Two years after the unemployment insurance came into force a member declared on the floor of the Reichstag, "Those who draw money from the unemployment insurance consider us fools."

A high government official proved that experience had shown that one-third of those drawing unemployment money were devoid of any sense of what is social, and that in one town of his district 43 per cent refused to take any job offered them.

A network of deception has been spread. Farmers exchanged sons, registered them as workmen, so that they might get the insurance in winter for both families.

Fictitious work contracts were made, and with illicit work a system of deception was established. Unemployed workmen getting their allowance snatched work away from artisans and businessmen, *etc.*, as, owing to the allowance, they were able to do the same work for less pay than honest workers who had to pay rates and taxes. Employers engaged workmen for half wages without registering them, and paid neither wage tax nor social insurance premiums, and the "unemployed workman" pocketed his "allowance" besides.

Since last year police raids are occasionally made in the big cities in search for illicit workmen in market halls, ports, at railway stations, *etc.* Thousands were caught, part of them were imprisoned.

Bluff is used for cheating the accident insurance. The casualty hospitals are called "bluffer universities."

All meeting with an accident try to represent the injury received worse than it is in order to obtain a higher allowance.

Certain methods of medical treatment were forbidden as they could not possibly have the desired effect, the patient not having the wish to get well and forfeit the allowance.

The annuity, old-age, disability insurances have introduced a treatment for strengthening delicate patients, so that they need not start payments too soon.

In the first months of the year the applications for cures to the disability and employees' insurances pour in because many are anxious to take their summer holiday at the expense of the social insurance.

Matters soon made an extensive controlling system necessary. This ended in badgering all persons concerned.

Patients are visited in their homes by controlling officials who have to convince themselves that the patient is really ill and not doing any work. The patients are therefore allowed certain hours for going out by the doctors.

The sick insurance engages so-called confidential doctors who have to submit the patient to a final examination to see whether he is too ill to work. The results of such examinations are to a great extent startling. Here is one instance from among thousands: 2008 patients were ordered to appear for a final examination. Eight hundred sixteen of them at once declared their complete recovery; 289 were found to be well by the confidential doctor. So nearly 50 per cent were not ill at all.

The confidential doctor is, so to say, the medical policeman, who not only controls the patients but also his fellow doctors who are treating them.

The genuine patient is justly indignant to find that the existence of his illness is doubted, and that he who has always paid his premiums regularly and has a right to demand conscientious attendance is considered a cheat.

This system, together with the rest of the bureaucratic apparatus, has wedged itself between doctor and patient, completely destroying the patient's confidence in his physician, which greatly retards all recovery.

The sound idea of sick insurance has become thoroughly unsound, and the harm it does far outweighs its advantages.

In the unemployment insurance the controlling is done by making the workmen have a stamp put on their premium card once a week. How defective this method is, is proved by the problem of "illicit work" and the police raids for illegal workers.

I once stated in a lecture that I knew the way of quickly diminishing the number of unemployed by 50 per cent: The state was to enlist half of the army of unemployed as auxiliary policemen to shadow the other half. This would be effective control provided that there were no secret understandings between the shadowers and the shadowed.

In any other way control is ridiculous. Those who know anything about medical certificates—those who know that in 99 cases out of 100 they contradict each other, and who also are aware that medical opinion forms the basis for the amount granted by the accident insurance as well as for the sickness and disability allowances can easily imagine what happens. They will not be surprised that a confidential doctor, whose task it is to keep the number of patients low, declares a patient recovered who nevertheless dies 2 days later.

The connection between the different risks in the social insurance system is of much more importance than would at first appear.

So the so-called occupational diseases (22 of them) are classed as accidents and passed on to the accident insurance.

Annuity insurance takes upon itself the medical treatment that really ought to fall to the sick insurance, whereas the sick insurance pays sick money for 26 weeks only. If the illness lasts longer, the disability insurance has to pay. On that account twilight zones and certain legal relations exist between the different branches of social insurance.

Were there only one insurance all responsibility would be loaded upon it. Until the unemployment insurance existed all who were dismissed from their jobs reported as patients to the sick insurance to obtain the sick insurance allowance.

We find that the extension of social insurance takes on an automatic tendency. As long as there was no unemployment insurance, the sick insurance formed the best barometer for the state of business. When social insurance was first planned in Germany, accident insurance only was considered. Accidents not being of frequent occurrence, relatively few workmen meet with them. Then the discovery was made that old age, illness, and disability are much more frequent in a workman's life. These may and do overtake all. And, although Bismark considered sick insurance a supposititious child, it was the first to be enacted.

When the world depression set in, the time seemed to be ripe for unemployment insurance.

When, during the last few years, the sinking birth rate pushed the problem of population into the foreground, the introduction of a mother-and-parenthood insurance was seriously discussed.

In the beginning nobody thought of insuring all workmen, merely needy ones. But soon everybody was "needy." To-day, with members of families included, two-thirds of the nation are compelled to be insured.

A pension and support craze has been fostered that aims to make the entire population of the country state pensioners, relieving the individual thereby of the duty of caring for himself and of saving.

State pensions mean the death of all will to work and of all personal ambition.

Liberty and progress are possible only where the will to get on and to accumulate capital is not hindered, but furthered.

Social insurance has produced an unbelievable number of questions and problems hardly fathomed by the uninitiated, who face them quite helplessly.

Practice alone gained by 50 years of experience can answer these questions.

What is given here are merely a few outlines.

It is impossible even to mention all doubts in a short paper such as this, far less to answer them explicitly.

From what has been said, however, it can be seen clearly that social insurance is no simple matter but an extremely intricate problem.

Therefore a few lines about laws and administration. Social insurance laws consist of 2700 paragraphs; 200 of these have lately been abolished. A great number of amendments, executive regulations, and alterations supplement this confusion of paragraphs. Even experts can make them out only in parts.

By extending and employing these paragraphs another tangle of commentaries has grown up around them. To an ordinary mortal this work is a book with 7 seals. Nor could it possibly have been simplified. As soon as such a law has been made, flaws are detected. These must again be rectified.

Ever since social insurance has existed, it has been subjected to reforms, one following the other in rapid succession.

Legislation is never done with social insurance. In keeping with its complexity, its expansion, and its millionfold ramifications in the life of the state and the people is the size of its organization and its administrative apparatus.

The number of officials required for the administration of social insurance varies in accordance with the amount of work being done. In total, and including the unemployed, 22,000,000 is the approximate number of insured persons.

There are about 6500 sick insurance units. Unemployment insurance is administered from one national institute, which controls 13 state centers and 361 local centers.

The premiums for the unemployment insurance are collected by the sick insurance.

The accident insurance is administered by 66 trade organizations with 261 sections and 40 agricultural organizations with 526 sections.

The disability and old-age insurance is managed by 29 regional *Landesversicherungen* (offices of the provinces) and 6 special institutions.

One of these is the Reichs-institute for clerical employees and the Reichs-miners' insurance office with 16 district offices.

During the past few years the administration costs amounted to 400,000,000 marks annually. The costs cannot be called too high and cannot possibly be materially reduced.

However, the whole matter gets another aspect in view of the fact that these expenses are covered by workmen's premiums and are deducted year by year from the money intended for these men's support. In one worker's generation—say from the age of 20 to 60, or 40 years—it means the gigantic sum of 16,000,000,000 marks, which therefore is lost from the funds originally intended for sick, unemployment, and old-age insurances.

An army of about 70,000 officials is required to handle part of the wages of the workers under compulsory administration, for what else is social insurance?

For every 200 workmen one official is wanted in the above-mentioned administrative apparatus, which by no means comprises the entire machine. A great part of the administrative body is borrowed from other departments of government, as for instance the Reichs-post office, as well as private business concerns. The post office sells the premium stamps and pays out annuities for the old-age insurance.

The private business concerns serve as collecting agencies. Their duty is to compute the premiums, to deduct them from the wages, and to convey them together with the employer's share of the premiums to the different offices of the social insurance. The wage departments therefore have become unduly enlarged,

causing considerable extra cost which is hard to account for. Wage computation has gradually come to be a science in Germany.

But that is not all.

The extension of the administration, its multiformity, the complication of its legal regulations requires a special supervising and judicial staff. This work is accomplished by a Reich-insurance office, 3 regional insurance offices (these are now going to be closed down), 68 head offices, and 1100 insurance offices. The costs for this army of officials are not included in the administrative expenses, but are borne by the state—also the administrative expenses of welfare relief, which has provided for the majority of the unemployed lately.

What gigantic sums of the workmen's capital are invested in the buildings in which the offices are housed can be calculated from the figures of the administrative apparatus. In many towns the buildings of the social insurance are the largest. In the period 1918 to 1932 particularly, so much money was invested in these palatial buildings that it resulted in a public scandal. The sick insurance palaces and the unemployment office buildings vied in size and splendor with the administrative palaces of great financiers and industrial concerns, or representative public buildings. In many places they even outshone them. While many workmen were living in dilapidated houses, their money was used for building huge, luxurious offices, which bore no sign of their purpose—the administration of the hard-earned capital of the working classes, put by for times of need.

To these must be added numerous other buildings: Laboratories, dental stations, medicine depots, and a considerable number of nursing homes. (The latter must not be confounded with the many hospitals, sufficient in number, clinics, *etc.*, belonging to the state or universities, towns, religious organizations, cooperative organizations, *etc.*) The incalculable sums invested in these buildings and their luxuries can never be converted into allowances for the support of the needy.

Downright corruption adheres to the palaces. One scandal follows the other. Administrative officials, suppliers, architects are dragged into the mire. Common embezzlement, bribery, and other dishonorable acts on the part of officials are uncovered. In the excessive squandering of money, doctors, dentists, chemists, even employers become involved, the latter chiefly as wilful premium defrauders. They deduct the premiums from the workmen's wages without paying them to the insurances. To this came the unnecessary, dishonest exploitation of the insurances by pretenders, annuity chasers, illicit workers.

All this at the workman's expense, for the part of the premiums supposed to be paid by the employer is in reality borne by the workman, either as consumer or as wage-earner. The idea of burdening the employer with part of the premium is good and sound, but only as long as it is low. To-day the employer's share is about 10 per cent of the wages and in consequence one of the most vital expense items of the economic system. As the employer's premium share is immediately connected with the wage, it is shifted over on the wage.

In Germany no one doubts any longer the fact that the employer's share of the premium is taken from the workman's wages. What the employer pays as his contribution to social insurance, he cannot pay the workmen in the form of wages.

Some years ago a well-known trade unionist had to admit that countries without social insurance have higher real wages than Germany (United States of America, Holland, Scandinavia) while another said: "High wages are the best social policy." In other words, social insurances handicap wage development. But not only this, they also intensify wage struggles.

Premiums started on a modest basis. The first were 1.5 per cent for the employee and 0.75 per cent for the employer. To-day, the entire premium averages almost one-fifth of the amount of the wages and for miners

it is nearly 30 per cent. The involved way in which the contributions are divided between employer and employee is omitted here, as an alteration is pending. It is expected that employer and employee in the future will bear equal shares, about 10 per cent each. Is it to be expected that an employer can afford to make an employee a present of 10 per cent in addition to his wages?

Certainly not. He keeps it in mind when fixing wage rates. Of the part of the premium an employer pays, the workman hears and sees nothing and still the amount is deducted from the gross amount of his wages. He can only reckon with the net wages which have been shortened by 20 per cent. Consequently the wages always appear too low. On the other hand, the social burdens have always been a handy excuse for the employers, even when wage demands were fully justified.

Must not this intensify wage struggles? Anyone can imagine the feelings of a workman who week by week, month by month, year by year suffers a compulsory loss of one-fifth of his earnings. This loss of a considerable part of his wages really means expropriation.

The only part of the wages he might be able to save in order to build up a capital is taken from him, thus preventing him from having any resources of his own. Whether he wants to or not, he is doomed forever to remain a proletarian. It is social insurance therefore that makes needy people, in order to give them after they have become needy very inadequate support. Social insurance originally was established to help those in distress. Now there are poor of its creation.

The assertion that social insurance increases poverty, making it an everlasting doom from which there is no escaping, a fate accompanied by discontent and despair, is evident. It becomes clearer still at the sight of a few figures. I do not take one-fifth but the lowest average figures now valid in Germany—17 per cent of the wages. The result is the following yearly premium amount:

WEEKLY WAGE	YEARLY PREMIUM
20 RM. (\$5.00)	177 RM. (\$44.25)
25 RM. (6.25)	221 RM. (55.25)
30 RM. (7.50)	265 RM. (66.25)
40 RM. (10.00)	354 RM. (88.50)
50 RM. (12.50)	442 RM. (105.50)
60 RM. (15.00)	530 RM. (132.50)
70 RM. (17.50)	609 RM. (152.25)

Juvenile workers start paying at age 14 and 15 and go on paying until age 65, or until completely disabled.

Must the idea not arise that a workman should be allowed to keep his own savings and to invest them at interest, so that he may be able to keep himself and his family in the time of need out of his own means? This idea becomes more concrete when we consider in what way the sum, if properly invested, might increase at an interest of 5 per cent, which still seems adequate in Germany.

Here are the results, supposing that payments are made continuously and nothing withdrawn between age 20 and age 65:

WEEKLY WAGE	ACCUMULATION
20 RM. (\$5.00)	28,000 RM. (\$7,000)
25 RM. (6.25)	36,000 RM. (9,000)
30 RM. (7.50)	43,000 RM. (10,750)
40 RM. (10.00)	56,000 RM. (14,000)
50 RM. (12.50)	77,000 RM. (19,250)
60 RM. (15.00)	86,000 RM. (21,500)
70 RM. (17.50)	100,000 RM. (25,000)

Even if a low rate of interest is used as the basis for calculation, the figures reached will be enormously high. For a calculation covering 45 years, neither very low nor very high interest must be taken, but a medium one. It must also be considered, however, that these figures refer to only one member of the family, that most workmen have a wife who before marriage worked

and paid insurance premiums too, that many of them go on working when they are married and continue to pay premiums, and that the children at age 14 or 15 start paying also.

Only then is it possible to realize how the workman's family is pauperized by insurances.

Though such proofs are only of theoretical value, they clearly demonstrate that there is no necessity for men to remain proletarians forever, that they need not allow themselves to be forced into the strait-jacket of collective mass insurance, and that on rare occasions only need they be obliged to resort to help from others.

The proposal has therefore been made to substitute for social insurance, which has so many unavoidable drawbacks, a system of social-savings accounts, each workman banking for his own account. Then, in case of illness, unemployment, *etc.*, he would be able to fall back upon his own resources first of all.

In the same manner as the workman is now compelled to pay premiums for social insurances, he should be obliged by law to make regular deposits into his savings account.

This would be the duty of the state, as in cases of distress of great dimensions, providing for the poor would fall to its share. Under a social insurance system, the number of people who must be supported when they have no earnings is constantly increasing, whereas the number would diminish if people were forced to save.

A state that has to take the responsibility of providing for the majority of its subjects, as is the case with social insurance, is bound to collapse when the time of need comes.

Every single individual should be made to see that he has the duty to provide for himself.

Independence and a sense of responsibility of the citizens are the only means to save a state from too great a social burden, as was the case in the United States before the great crisis came. There the inexorable "I must" drove everyone on, for no social insurance existed to take the trouble from the people in a time of reverses.

But every nation has a great number of subjects for which a compulsion, it being only a moral one, does not suffice. They have not enough will power of their own to put by sufficient of their earnings for a rainy day. Besides this there are others who rely on their luck and, trusting in everlasting prosperity, live carefree lives, forgetful of times of distress.

These carefree, weak characters are the ones that require state compulsion. For them laws are a necessity—also in consideration of the others who would be burdened with the care of them. For the strong-minded the compulsion is merely the fulfillment of what they themselves consider a natural duty. Therefore it does not mean compulsion for them. A duty to save, prescribed by the state, is the best solution of this problem. All this can be carried out with the means which are now wasted for social insurance.

Instead of an insurance card the workman would have a bank book, the best way of giving him a sense of responsibility.

For the carrying out of this no new institutions would be required. The existing banks and credit institutions together with the postal saving banks or similar institutions would suffice.

The administration costs would not be drawn from the deposits, as in the social insurance from the premiums, but would support themselves the same as in all banks from their own profits. On the contrary, the savers would be paid a normal percentage of interest besides.

Here the state would have only suitable control and regulation for the investment of the capital as, for instance, it has in German savings banks.

These savings must of course be used only for the social purposes for which they are intended and must be blocked until a certain amount has been accumulated.

These restrictions are very slight indeed compared with the entire loss of disposal rights under a social insurance system, for here the property rights as well as the rights of inheritance remain, which is not the case with any of the social insurances.

All waste would disappear, all control might be abolished when men no longer ate out of a large common dish but had to pay for everything out of their own pockets.

The administration of social saving banks can be made quite easy and simple.

The calculation of the wages would no longer be complicated, and the amount of the employer's premiums would no longer be camouflaged and deducted from the workmen's wages. The workers would get the full amount of their wages, but part of them in form of a bank credit. Details it is not the place to discuss here, but that this method is easier to carry out than that of the involved social insurance is evident. The laws required would not need more than one-tenth of the paragraphs of social insurance.

Those few who might fail to be able to support themselves under a savings account system (it should not exceed 5 per cent of the entire number) must of course be taken care of by society. That they could be cared for better than when all are obliged to rely on public help stands to reason.

Existing institutions for the aid of the poor, trade unions, voluntary welfare organizations such as the Salvation Army, the Red Cross, and other charitable institutions, *etc.*, would be quite sufficient. This work might also be regulated and supervised by the state. Flexible support, which depends on the extent of the distress and the requirements in each individual case, is more social than the so-called help of social insurance, which adheres rigidly to regulations and paragraphs.

Social insurance is distinctly a system that eats up and wastes capital. If it were based on adequate capital and reserves, the premiums would be so high that there would not be enough money in the world to pay them.

It has been proved that state social insurance saps the supply of capital required by private life insurance. A workman with savings of his own can insure his future by insuring his life.

The saving system is not only a systematic accumulation of capital, but it distributes capital in the broadest way all over the nation.

An economic crisis is largely aggravated by the fact that the middle classes suffer most, which means that the consuming power of a broad section of society is impaired.

Under the savings system the larger part of the working population can be raised to the level of middle class prosperity within a generation. But even in the very beginning, when the broad masses notice the growth of their savings accounts, their minds will be imbued with the sense of property ownership and capital formation. Thereby an objective will be set which they will try to reach and which will stimulate their ambition.

This forms the safest bulwark against the encroachment of communistic-socialistic ideas.

With a social insurance for wage earners class distinctions are legally sanctioned and more and more aggravated.

Up to a certain income and fortune limit, all classes could be included in the savings system without there being any danger of a general state pension complex.

One might easily be led to think that in times of great distress, such as the present crisis, the introduction of a savings system would be impossible. If that were so, the establishment of social insurance must be all the more impossible. When millions of unemployed have neither capital nor an income to live on, when hundreds of thousands of members of the middle classes are impoverished, the first endeavor must be to

prevent more people from falling to the care of the state, to stop poverty increasing, and to make up for losses sustained with utmost speed.

If unemployment insurance is not introduced until millions are already out of work, the unemployed cannot be taken care of by the insurance, because, under any insurance system, a claim for an allowance must be preceded by payment of adequate premiums over a stipulated period (6 months in Germany). Unemployment insurance is therefore only for those who still have work but may be unemployed later on.

For the employed there is always the possibility of making deposits against a possible need and thus erecting a bulwark against further demands on public aid. The introduction of social insurance expects exactly the same from them.

Social insurance has taught one good lesson: Every one must use part of his earnings to protect his future.

Times of unemployment can be bridged over from earnings and from them only.

Why, people will ask, does Germany after having experienced the great drawbacks of social insurance, not adopt this system—a system that seems so reasonable and so full of appeal to human nature?

If Germany had no social-insurance system, but still had her 5 years of experience in it, she certainly would not adopt social insurance today.

But it would now mean in Germany transforming one system into another. And this is where the difficulty lies.

When a nation has been swayed by a certain law for half a century, be it right or wrong, this has entered into its mentality and it would be a difficult task to train a nation to another way of thinking.

Added to this, a colossal institution such as the German social insurance is bound up in the state's national and economic life, and, besides, an army of people—directly or indirectly—lives on it.

And what is still more vital is that millions of old people, disabled persons, widows, orphans, and cripples depend for their very existence on the insurances, and that many millions through contribution over decades have gained rights that must be respected at any cost.

Although ways and means for a change might be found, the winding up of the present system would require a very long time—for the annuity insurance it would take years. This is clearly to be seen when we learn that for the covering of existing claims in the annuity insurance, 16,000,000,000 marks are wanting. Payment of course does not fall due to-day or to-morrow. It extends over a long space of time. But still the means have to be found. From what has been said here it may be seen that social insurance, once established, is difficult to abolish. This ought to be borne in mind and be a warning to take particular care and consider it well.

For a state not burdened with the obligations of social insurance the introduction of the saving system is easy and without any risk, as the state has not to take upon itself the legal obligation to provide for those unable to do so for themselves.

For the new German government the most vital thing was to prop and support the gigantic structure, to prevent its collapse and thereby to safeguard the existence of millions. The Augean stable of corruption has been cleaned and reforms introduced. What the result will be, how matters will further develop, remains to be seen.

One thing however is certain: There is only one state in the world that fights proletarianism among the working classes energetically and purposefully with all ideal means, and in principle shares the opinions expressed here—that is Germany. In what way the ideal and material raising of the proletariat will develop depends on the economic development of the next few decades.

EDITORIALS

WILL AMERICA COPY GERMANY'S MISTAKES?

The Committee on Medical Economics of The Medical Society of the State of Pennsylvania has especially requested the publication of a brochure issued by the Pennsylvania Self-Insurers' Association, entitled "Will America Copy Germany's Mistakes?" Kindly read this report (in this number of the JOURNAL, page 411) in its entirety so that you may have a more thorough understanding of the matter involved, which the committee desires brought to your attention for your general information and further coöperation.

PREVAILING PHILOSOPHIES CONCERNING THE MENTALLY ILL

While it is true that the mentally ill have been and will be with us always, it cannot be denied that our political and social philosophies toward the mentally ill have added to that great increase which makes the care of these unfortunates one of our greatest social, economic, and political problems.

The social order has always kept aloof from the mentally ill. This attitude has been aggravated by legends and traditions such as "skeletons in the closets," "family disgrace," "evil spirits," *etc.* Our political philosophies were equally as abominable. Beginning in early times down to today, the philosophy—put them away and thus protect society—prevailed. Put them away at the most economical cost is the slogan of the hour. Put them away has a connotation that ye who enter here leave all life behind.

These 2 philosophies so dominated the thinking world that scientific strides in these fields were almost stamped out and yet, remarkable as it seems, science has brought more to light concerning prevention, early recognition, and appropriate treatment and thereby has outdistanced our social and political philosophies as to the proper means of combating mental disorders. We witness this today in our political programs, and while it is true that larger buildings are built (society demands that these unfortunates no longer be herded as cattle), sanitation, feeding, and clothing have improved, we find no monies appropriated for research or investigation, nor adequate salaries to provide the type of personnel which science indicates and which is needed in the study and treatment of mental disease.

The question naturally arises—how can we apprise and receive the support of society in demanding these things? How can we remake our political structure in such a way as to bring about a more wholesome political philosophy?

One had looked, but in vain, to the New Deal. Our institutions are overcrowded throughout the United States and yet how much money has been appropriated for new buildings, the correction of fire hazards and sanitation? Never was there a greater need. Never was there a more auspicious time than the prevailing hour to make these corrections; corrections which would, *per se*, stimulate business and lessen unemployment.

How long, how long, O Lord, before society and our political philosophies will include the mentally ill in their response to Thy admonition "Inasmuch as ye have done it unto one of the least of these my brethren, ye have done it unto me."

MODERN WEAPONS AID PHYSICIAN IN THE FIGHT ON TUBERCULOSIS

The underlying principle and aim for the 1935 educational campaign of the Pennsylvania Tuberculosis Society and its affiliated organizations, which is scheduled to begin April 1, can be stated in the following:

The treatment of tuberculosis must in all cases be based on diagnosis. Only a doctor can decide whether treatment is necessary and how it should be carried out.

The importance of early diagnosis will be urged in order that treatment can be started promptly and with more prospect of a cure, or at least arresting the disease. Our knowledge of treatment has made tremendous strides and it seems timely to inform the public more fully. To prevent misconceptions facts are to be presented on today's methods of treatment, such as the tuberculin test, roentgen rays, collapse therapy, the importance of the sanatoria, and social rehabilitation of the tuberculous patient. This is the basis of the slogan for the campaign, "Fight Tuberculosis with Modern Weapons."

An appreciation of scientific medicine is a major objective of health education, and the modern treatment of tuberculosis inspires respect for scientific medicine. Fuller knowledge of the treatment of tuberculosis dispels much of the fear of the disease and prompts the person

who may be worried about his health to go to his physician.

A poster being made available by the National Tuberculosis Association for use throughout the country suggests that medical science is a moving, living enterprise in step with the times. Attractive leaflets explain concisely and authoritatively the main aspects of the treatment of tuberculosis:

General treatment, need and purpose of the sanatoria, collapse therapy, and economic and social rehabilitation.

Tuberculosis through the ages has been surrounded by many deep-rooted fallacies. Much has been done to dispel these notions in the last 50 years and the knowledge gained of the disease has brought tuberculosis out of darkness. It is proposed in this campaign to enlighten the public further and to urge the importance of obtaining scientific medical service.

Physicians can help to further this aim by co-operating with the tuberculosis societies and the other participating agencies and thus assure a wider acceptance of accurate and sound knowledge.

CRETINISM IN THE UNITED STATES

An article on "Cretinism in the United States," by Dr. Arnold S. Jackson, of the Jackson Clinic, Madison, Wisconsin, appears in *The 1934 Transactions of the American Association for the Study of Goiter*.

The purpose of the paper which contains a survey of 512 cases is to show that cretinism is endemic in the United States and that there is merely a difference in degree between so-called sporadic and endemic cretinism. Likewise, to call attention to the increasing incidence of the disease in the United States and to reiterate its etiologic association with goiter. Finally, it is desirable to prevent the further increase of both cretinism and goiter by prophylactic measures directed at the latter.

The impression has been general that cretinism as it existed in Europe and Asia did not occur in America. The terms endemic and sporadic have been universally used to differentiate between the 2 so-called types of cretinism. According to the generally used classification, the former was believed to be prevalent in the mountainous regions of the Alps and Himalayas, while the sporadic type was thought to occur in any and all parts of the world. It has been said that the endemic form is due to a multiplicity of factors, whereas the sporadic type supposedly is the result of loss or diminution of thyroid secretion in the individual.

The factors considered responsible for the endemic form are largely hypothetical, such as, hypothyroidism and dysthyroidism in the mother as well as the individual, and the pathogenicity of one or another of the germ cells. Thus, the endemic form is said to show a far greater diversity of symptoms. In some, the brain is severely affected with a nearly normal skeleton; in others dwarfism is extreme, with comparatively little mental defect.

In 1921, Gordon, in a most comprehensive article, collected 340 cases of cretinism from the American literature. He makes the assertion that cretinism as it exists in Europe does not exist in America, and that not a single case of true endemic cretinism has ever been reported in America. He feels that sporadic cretinism as encountered in Europe differs from what has been termed the same disease here.

The distinction between sporadic and endemic cretinism does not seem to Dr. Jackson to be justified, and he disagrees with the contention of Gordon and others who have maintained that endemic and sporadic cretinism are distinct entities and as such do not exist in America.

He believes that when goiter has existed as long in America as it has in Switzerland or India and when an equal degree of inbreeding has occurred among goitrous families as in those countries, then a similar form of cretinism (the so-called endemic type) will be just as prevalent here. At least this condition will prevail unless efforts are increased to control and prevent the spread of goiter. He believes that cretinism is increasing in this country although as such it is still an insignificant problem.

When goiter has existed in a certain locality for many generations and when considerable intermarrying between goitrous families has occurred, there will be born in increasing numbers and in increasing degrees of mental and physical retardation children deficient in thyroid secretion. The degree of mental impairment may vary from severe cretinism with deaf-mutism, imbecility, and goiter (common in Europe and Asia for centuries and now beginning to appear in America) to the slightly subnormal child observed so often in our schools.

The age when the thyroid gland becomes diseased or deficient in its supply of iodine and the extent of this impairment are the determining factors in the consequent mental and physical degree of impairment.

It is apparent that cretinism in this country differs only in degree and distribution from that in Europe and Asia. There are cretins in this country with goiter, there are many with deaf-mutism, and there are even elderly cretins.

The data briefly analyzed to date by Dr. Jackson consisted of 512 cases—305 females and 207 males; average age, females 13 and males 12; oldest, age 56, and youngest, 2 months.

The results of treatment depend upon several factors, most important of which is the degree of cretinism. If the child is born a deaf mute, or with a marked degree of imbecility, thyroid therapy will avail but little. On the other hand, in the early mild cases, the therapeutic results are perhaps as brilliant and remarkable as in any field of medicine. Children who have been unable to walk or even talk, who have protruding tongues with large jowls and stupid dull facies, will within a few months after treatment is started begin to assume all the normal characteristics and actions of other children. The earlier the condition is recognized and the sooner thyroid therapy is begun the more favorable the response.

Jackson advises starting treatment with small doses, usually one-half grain of desiccated thyroid daily. If this dose is well tolerated it may gradually be increased. The correct dosage depends upon the age of the patient and upon the degree of cretinism.

While a preliminary survey of 512 cases of cretinism in the United States is presented, it is believed that many more cases exist but have not yet been reported.

The incidence of cretinism and of goiter in America has increased steadily since 1900. In certain states or localities these diseases have been checked and have possibly decreased as a result of iodine prophylaxis against goiter.

On account of the economic depression many localities have discontinued providing funds for prophylactic iodine treatment of goiter.

The generally used terms "sporadic" and "endemic" cretinism should be discarded, since they indicate merely a difference in degree of the same disease or the extent of its geographical distribution.

It is desirable to prevent the further increase of cretinism and goiter by prophylactic measures directed at the latter.

In the list of contributors to the survey were reports of 5 cases by Dr. Stanley D. Conklin, Guthrie Clinic, Sayre, and 2 cases by Dr. Leslie J. Schwalm, Geisinger Memorial Hospital, Danville.

JOHN ALEXANDER CAMPBELL, M.D.

Dr. John Alexander Campbell, of Williamsport, died at the Williamsport Hospital, January 4, 1935, from influenzal pneumonia, aged 59.

Dr. Campbell was a son of John Lucas and Matilda (Black) Campbell. He was born Oc-

tober 19, 1875, at Linden, Lycoming County, Pa.

He received his early education in the public schools, Muncy Normal School, Dickinson Seminary, and was graduated from the College of Physicians and Surgeons, Baltimore, Md., in 1901.

He began practice at Bernice, Sullivan County, Pa., and in 1905 located in Williamsport. Dr. Campbell had pursued postgraduate work in rectal diseases at the New York Polyclinic Hospital and the New York Post-Graduate School. He was chief in rectal surgery on the Williamsport Hospital Staff, and served for many years as surgeon for the New York Central Railroad.

He was a member of his county and State societies and a Fellow of the A. M. A.; was president of the Lycoming County Medical Society in 1922, a trustee and director for 10 years, and at the time of his death was treasurer. He served for several years in the House of Delegates of his State Society, and from 1924 to 1931 was a member of the House of Delegates of the A. M. A. No other member of the Lycoming County Medical Society has attended as many sessions of the A. M. A. as did Dr. Campbell. He was a member of the American Proctological Society. In 1925 he was elected to the board of managers of the Williamsport Hospital.

He was well-informed on the problems of medical organization and was willing to make any sacrifice to attend a meeting of his county, State or national organization, as well as meetings of other county societies, and the various annual councilor meetings. He was ever willing to contribute his time, energy, and money to the interest of his chosen profession.

He is survived by his widow, 3 daughters by a former marriage, and 2 daughters by the present marriage.

PROGRESS OF PLANS FOR ECONOMIC SECURITY

In the *Journal of the American Medical Association*, Jan. 26, 1935, page 318, appears an editorial entitled "Progress of Plans for Economic Security."

It states that on Jan. 17, 1935, President Roosevelt sent to Congress a message relative to unemployment insurance, old-age pension, federal aid to dependent children, the support of existing mothers' pension systems, appropriations for services for the protection and care of homeless, neglected, dependent, and crippled children, and finally additional aid by the federal government to state and local public-health

agencies and for the strengthening of the federal Public Health Service.

As to the more difficult problem of sickness insurance the President said specifically:

I am not at this time recommending the adoption of so-called "health insurance," although groups representing the medical profession are coöperating with the federal government in the further study of the subject and definite progress is being made.

Coincident with the message to Congress by the President came a message from the Committee on Economic Security to the President and the report that it submitted to the President. The report indicates again the difficulties inherent in a sickness-insurance program, but seems to forecast quite definitely its plans in relation to this problem. Thus it says:

As a first measure for meeting the very serious problem of sickness in families with low income we recommend a nation-wide preventive public-health program. It should be largely financed by state and local governments and administered by state and local health departments, the federal government to contribute financial and technical aid. The program contemplates (1) grants in aid to be allocated through state departments of health to local areas unable to finance public-health programs from state and local resources, (2) direct aid to states in the development of state health services and the training of personnel for state and local health work, and (3) additional personnel in the United States Public Health Service to investigate health problems of interstate or national concern.

The second major step we believe to be the application of the principles of insurance to this problem. We are not prepared at this time to make recommendations for a system of health insurance. We have enlisted the coöperation of advisory groups representing the medical and dental professions and hospital management in the development of a plan for health insurance which will be beneficial alike to the public and the professions concerned. We have asked these groups to complete their work by March 1, 1935, and expect to make a further report on this subject at that time or shortly thereafter. Elsewhere in our report we state principles on which our study of health insurance is proceeding, which indicate clearly that we contemplate no action that will not be quite as much in the interests of the members of the professions concerned as of the families with low incomes.

It is averred in the report that arrangements have been effected for close coöperative study between the President's committee's technical staff and the technical experts of the American Medical Association.

On the submission of the messages and reports to the Congress of the United States, Senator Wagner of New York submitted in the Senate, S. 1130, which is known as the Wagner Bill for Social Insurance.

We insert here a review of the Wagner Bill made by Dr. Olin West, secretary and general manager of the American Medical Association.

THE WAGNER BILL—SOCIAL INSURANCE

An abstract of S. 1130, introduced in the U. S. Senate by Senator Wagner, New York, to alleviate the hazards of old age, unemployment, illness, and dependency, to establish a Social Insurance Board in the Department of Labor, to raise revenue, and for other purposes.

TITLE I. OLD-AGE ASSISTANCE

For the fiscal year ending June 30, 1936, there is appropriated \$50,000,000, and for each fiscal year thereafter, \$125,000,000, 99½ per cent of which is to be allotted to the several states to provide financial assistance "assuring a reasonable subsistence comparable with decency and health to persons not less than 65 years of age who, at the time of receiving such financial assistance, are not inmates of public or other charitable institutions." State plans must be approved by the Federal Emergency Relief Administration. The amount that is to be allotted to each state is dependent on the sum made available for similar purposes by the state and its political subdivisions.

TITLE II. AID TO DEPENDENT CHILDREN

For the fiscal year ending June 30, 1936, and for each fiscal year thereafter there is appropriated \$25,000,000, not more than 99½ per cent of which is to be apportioned among the several states to provide aid to children under the "age of 16 in their own homes, in which there is no adult person, other than one needed to care for the child or children, who is able to work and provide the family with a reasonable subsistence compatible with decency and health." State plans must be accepted by the Federal Emergency Relief Administration. The federal allotment to each state is to be one-third of the amount made available by the state and its political subdivisions for similar purposes.

TITLE III. EARNINGS AND EMPLOYMENT TAXES

Beginning Jan. 1, 1937, an earnings tax is to be imposed on every employee, except on a nonmanual worker whose monthly salary is more than \$250.

Likewise, an employment excise tax is to be imposed on every employer, at a rate of one-half of 1 per cent of the pay roll of such employer as of Jan. 1, 1937, and increasing until the rate reaches two and one-half per cent of the pay roll as of Jan. 1, 1957.

The taxes so collected are to form a part of an old-age fund.

TITLE IV. SOCIAL INSURANCE BOARD

In the Department of Labor, there is established a Social Insurance Board, composed of 3 members appointed by the President.

The board, with the approval of the Secretary of Labor, may appoint and fix the compensation of such officers, attorneys, and experts as may be necessary to carry out its functions, without regard to the civil service laws and the Classification Act of 1923.

The duties of the Social Insurance Board are to be, in part: (a) To study and make recommendations as to the most effective methods of providing economic security through social insurance, and as to legislation and matters of administrative policy concerning old-age insurance, unemployment compensation, accident compensation, health insurance, and related subjects; (b) to supervise and direct the payment of old-age annuities under a national contributory old-age insurance system; and (c) to assist the states in the administration of unemployment compensation laws.

For the fiscal year ending June 30, 1936, there is appropriated \$5,000,000, and for each fiscal year thereafter \$50,000,000, 98 per cent of which is to be apportioned by the Social Insurance Board to the several states which have certain types of unemployment compensation laws, the apportionment to be on the basis of need for financial assistance in the proper administration of such laws.

Old-Age Annuities.—Beginning Jan. 1, 1942, the bill provides for the paying of old-age annuities to persons not less than 65 years of age, who qualify under the bill. The amount to be paid each annuitant will be an amount equal to a percentage of his average monthly wage.

TITLE V. ANNUITY CERTIFICATES

The Social Insurance Board is authorized to borrow from time to time, on the credit of the United States, for the purpose of increasing the old-age fund, such sums as in its judgment may be desirable, and to issue therefor, at such prices and upon such terms and conditions as it may determine annuity certificates.

TITLE VI. UNEMPLOYMENT FUND

This title proposes to establish an unemployment fund and to collect annually from every employer of at least 4 persons an excise tax, measured by an amount equal to 3 per cent of the employer's pay roll. An employer may credit against this tax, up to 90 per cent of the tax, the amount of his contributions to any unemployment fund under any state law. Each state is to have an undivided interest in this unemployment fund and may requisition any part of the money held in trust for it.

TITLE VII. MATERNITY AND CHILD WELFARE

For the fiscal year ending June 30, 1936, and for each fiscal year thereafter, there is appropriated \$4,000,000 to enable the federal government to cooperate with the state agencies of health in extending and strengthening services for the health of mothers and children, especially in rural areas and in areas suffering from severe economic distress.

This appropriation is to be administered by the Department of Labor. Ninety-five per cent of the appropriation is to be allocated for the furthering and strengthening of "state and local health services to mothers and children, extending maternity nursing services in counties predominantly rural, and conducting special demonstrations and research in maternal care and other aspects of maternal and child health service."

For each fiscal year, the sum of \$20,000 is to be allotted to each state by the Secretary of Labor and the sum of \$1,000,000 is to be apportioned among the states in the proportion which the number of live births in each state bears to the total number of live births in the United States as determined annually by the latest available statistics for the United States Birth Registration Area.

The Secretary of Labor may, further, apportion \$800,000 "among states unable, because of severe economic distress, to match by themselves in full the amounts made available" under the preceding paragraph, for their use in matching such sums.

The remainder of the appropriation is to be allocated by the Secretary of Labor for special demonstrations and research in maternal care in rural areas, and in other aspects of maternal and child health.

To receive its allotment a state must make available a similar amount, except under certain circumstances, and, through its state agency of health, must submit

to the Children's Bureau a state plan which must include "reasonable provision for state administration and supervisory services for furthering local maternal and child-health services administered by local public-health units for state financial participation, and for cooperation with medical, nursing, and welfare groups and organizations, and must give due consideration to the development of demonstration services or services of a more permanent character in rural and other needy areas or among groups of the population in special need."

If the chief of the Children's Bureau deems the submitted plan "in accordance with accepted standards of public-health practice developed by federal bureaus and other agencies," the plan may be approved and the state may thereby qualify for federal aid.

Care of Crippled Children.—For the fiscal year ending June 30, 1936, and for each fiscal year thereafter, there is appropriated \$3,000,000, to be administered by the Department of Labor, to enable the federal government to cooperate with state agencies concerned with providing medical care and other services for crippled children.

The sum of \$20,000 is to be allotted by the Secretary of Labor to each state, and the remainder, less administrative expenses, is to be apportioned among the states "on the basis of need as set forth in plans developed by the state agencies concerned and approved by the Children's Bureau."

Except in severe economic distress or other exceptional circumstances, no allotment to a state shall exceed the sum made available by the state for similar purposes.

State plans must be approved by the chief of the Children's Bureau and must include "reasonable provision for state administration, adequate medical care, hospitalization and after-care, and cooperation with medical, health, and welfare groups and organizations."

Aid to Child-Welfare Services.—For the fiscal year ending June 30, 1936, and for each fiscal year thereafter, there is appropriated the sum of \$1,500,000, to be administered by the Department of Labor, for cooperation with the state agencies of public welfare in extending and strengthening, especially in rural areas and areas suffering from severe economic distress, welfare service for the protection and care of homeless, dependent, and neglected children, and children in danger of becoming delinquent.

The sum of \$10,000 is to be allotted to each state by the Secretary of Labor, and \$1,000,000 is to be apportioned among the states in the proportion which their population bears to the total population of the United States. No allotment may be made to a state in excess of the sum made available by the state for similar purposes.

The remainder of the appropriation, less administrative expenses, is to be apportioned by the Secretary of Labor among the states unable, because of severe economic distress, to match in full the amounts allotted under the preceding paragraph, to be used by such states in matching such sums, or for special demonstrations of methods of community child-welfare services.

To receive financial aid, a state must submit plans, acceptable to the chief of the Children's Bureau.

TITLE VIII. APPROPRIATIONS FOR PUBLIC HEALTH

For the fiscal year ending June 30, 1936, and for each fiscal year thereafter, there is appropriated the sum of

\$10,000,000, to be administered by the Bureau of the Public Health Service.

The Bureau of the Public Health Service is to allot annually \$8,000,000 to the several states, "in amounts determined on the basis of the need of each state for such assistance," to develop state health services, including the training of personnel for state and local health work and for the purpose of assisting counties or other political subdivisions of the states in maintaining adequate public-health programs.

The sum of \$2,000,000 is annually to be made available to the Bureau of the Public Health Service "for the further investigation of diseases and problems of sanitation and related matters."

The editorial further states that one item of the bill, a social insurance board, is to be a part of the Department of Labor. The bill appropriates \$4,000,000 annually for maternity and child welfare; also to be administered by the Department of Labor. For the care of crippled children the bill provides \$3,000,000 annually, under similar supervision as is the child-welfare service, for which there is an annual allotment of \$1,500,000. Finally, the Wagner bill appropriates \$10,000,000 annually to be administered by the Bureau of the Public Health Service, to develop state health services.

The work of the United States Public Health Service is worthy of generous support. It is most unfortunate that such important medical work is placed in the Department of Labor, under what is essentially nonmedical control, instead of being correlated under the United States Public Health control.

The editorial concludes as follows: "The JOURNAL has emphasized repeatedly that no system of medical practice can succeed unless the medical profession gives it whole-hearted support and coöperation. Physicians everywhere must make themselves fully conversant with the trend of the legislation that is proposed so that they may, in turn, enlighten the senators and representatives who speak for them in Congress. We seem to have impressed considerably with our point of view those who are undertaking the development of these new experiments in the conduct of medical care. We must not lose heart. Convinced of the righteousness of our attitude, knowing that the medical profession alone understands the fundamental human factors at the basis of the best medical care, it is our duty to do our utmost to make our point of view prevail. This we must do not only for economic security but also to secure for the American people a continuance of the high quality of medical care that has been theirs up to now."

A REQUEST FROM THE STATE DEPARTMENT OF HEALTH

The State Department of Health, Harrisburg, makes an urgent request of the members of the State Society that they give free diphtheria antitoxin, tetanus antitoxin, and biological products of like nature *only* to people who are really not able to pay, and that they furnish the Department with a receipt signed in triplicate by the doctor and the druggist, covering products thus used. Physicians' prescription blanks may be used for this purpose.

The members are also urged to use like care in sending specimens to the State Laboratory. The Department desires to be of assistance to every physician, but the Laboratory is maintained at a tremendous expense and the use of it should not be abused.

The finances of the Department of Health warrant these requests.

DR. WESLEY F. KUNKLE GIVEN ANNUAL GRIT AWARD

Dr. Wesley F. Kunkle, of Williamsport, was chosen to receive the annual Grit Award for Meritorious Community Service.

This distinction is for the year 1934 to one of Williamsport's oldest and best known physicians with a long record of community service.

For more than a score of years, Dr. Kunkle has been the leader in the battle against tuberculosis, both in Williamsport and Lycoming County.

A member of the Williamsport Hospital staff since 1896, he has given perhaps more hours of free medical and surgical service to the poor of Williamsport than any other of his profession.

"I have removed 9000 sets of tonsils in my years of practice," says Dr. Kunkle. "Most of them were from school children. And in 90 per cent of the cases I never received one cent for pay."

Therefore, on the merit certificate with which the veteran physician will be presented, he is cited for "his magnificent and untiring efforts against tuberculosis and his years of free and unselfish medical service on the staff of the Williamsport Hospital."

Dr. Kunkle is now serving his fifth year as president of the Lycoming County Tuberculosis Society.

It was due to a long and noteworthy record of "service which seeks the well-being of one's fellow-men" that caused the directors of Grit Publishing Company unanimously to choose Dr. Kunkle for the 1934 award.—*Williamsport (Pa.) Grit*, Dec. 30, 1934.

KEEPING ACCURATE RECORDS

A recent decision handed down by the Supreme Court of Pennsylvania is quite significant in respect to the matter of keeping clinical records on cases in practice. The State Board of Medical Education and Licensure of Pennsylvania has emphasized the need of complete and accurate records in hospitals, not only to assure a critical care of the patients but also to develop in interns habits of study and notation which will mean better clinical care of our citizens later in their private practice.

The board also pointed out the fact that these records without foreknowledge may later become important data in medicolegal aspects of certain cases. That as a means of defense the hospital must have full and

reliable records to sustain its share of responsibility which always obtains in institutional patients. Therefore, the attitude of the eminent jurists as given in the accompanying excerpts quoted from the *Medical Record*, Jan. 2, 1935, should be satisfactorily observed:

"The Pennsylvania Supreme Court held—*Paxos vs. Jarka Corp.*, 314 Pa. 468—that hospital records are inadmissible in evidence except in extraordinary cases, and then only when the 3 following probative elements are present.

"First, they must be made contemporaneously with the acts which they purport to relate. The fact that each case bears its own number would make it difficult, if not impossible, to invent such a record. Its individual and mechanical integrity may be guaranteed by its form, the manner of its keeping, and the institution from which it comes. Second, it is usually, at the time of making such records, impossible to anticipate reasons which might subsequently arise for making a false entry in the original, so that there is usually an utter lack of all motive to misrepresent. Third, and primary, the knowledge of the person responsible for the statements. Reports of interns or students only, not shown to have been made at the direction of the doctor in charge of the case, were excluded."

I. D. METZGER, M.D., *Chairman,*
State Board of Medical Education
and Licensure.

NEED OF PRENATAL CARE

Prenatal care, to be of any help in the proper evaluation of the factors dealing with maternal mortality, must be rendered to the degree of adequacy. If such care is less than what might be classified as good, it approaches the point of indifferent care and, if worse, it degrades itself to the degree of poor care.

Every pregnant woman is entitled to no less a grade of care than what is termed good. All physicians who are obstetrically conscious do render even a better grade of prenatal care, approaching what is classed as adequate, and it is this high-grade care that physicians as a whole can, and should render to every pregnant woman.

What can adequate maternal care accomplish?

The medical profession for years has proclaimed the false belief that, with prenatal care, the toxemias of pregnancy will be reduced. The public has been led to believe the same. Prenatal care will not reduce the number of toxemic patients, but the danger signs should be recognized early if the physicians are awake to the signs and symptoms, and only through early and prompt recognition of the warnings can the severe metabolic breakdown be foreseen and forestalled. Adequate maternal care will obviate the convulsive catastrophes only if the physician institutes early preventive treatment. Albuminuria and convulsions are responsible for approximately 25 per cent of maternal deaths. There are warning signs and symptoms in practically all the cases of approaching complications; as noted in one survey there were only 9 out of 231 cases that were of the fulminating type.

The Maternity Center Association of New York City, over a period of 9 years, showed most definitely the truth of their statement, "that maternal deaths can be reduced to one-third of the prevailing rate by adequate maternal care."

If physicians would advise all women to report for care and examination after the first amenorrheic month, there would be a decrease in deaths from pregnancy before even the stage of viability of the fetus is at all possible. A complete examination at the very first visit may classify the pregnancy as intra-uterine or ectopic. Deaths from ectopic pregnancy vary as causative factors in the high maternal death rate in from 4.6 per cent to 6 per cent of all maternal deaths.

There is a group of women who are determined early in pregnancy to have an abortion done. The physician's responsibilities and duties of warning in regard to the dangers of an abortion begin at the first visitation. It is obligatory that the profession assume leadership in this social and economic problem. Abortions, however classified as criminal, self-induced, or spontaneous, are held accountable for from 17.5 to 26.6 per cent of all puerperal deaths, and this high rate is due in three-fourths of the cases to sepsis and in the remainder to hemorrhage.

Are these not approachable avenues of travel towards our goal of lessening the danger of childbirth?

Prenatal care is the mainstay and must be rendered to an adequate degree. Abortions can be reduced in number under the leadership and guidance of the medical profession. Ectopic gestations could be diagnosed or suspected in a certain percentage of cases if we would examine more thoroughly all gravidæ as early in their pregnancy as possible. This early reporting will result only from further advising and insisting on the part of the profession—to report for care when pregnancy is even suspected.

THE COMMISSION ON MATERNAL WELFARE,
THE MEDICAL SOCIETY OF THE STATE OF
PENNSYLVANIA.

A CHALLENGE REPEATED

Substantiated by Authentically Impressive Figures

Dr. Walter F. Donaldson has frequently written about and on occasion spoken before the Allegheny County Medical Society of the great promise of successful distribution of medical service to the small income class group under a plan adopted more than a year ago by the Wayne County (Detroit, Mich.) Medical Society. This plan, under the title "The Medical Service Bureau" (Pino Plan) was fully presented on page 950 of the *PENNSYLVANIA MEDICAL JOURNAL* for Aug., 1934.

It will be remembered that the plan is based upon payment of bills for medical service on the instalment plan through pay-roll deductions; further, that the employers of more than 300,000 individuals in Detroit were glad to acquiesce in the proposal because it combined for many of their employees all forms of sickness service, including hospital, easily arranged through a request from the employed individual's family physician, or from the employed individual needing a physician, direct to the Wayne County Medical Society office.

As tangible evidence of the success of this plan, the following figures are offered:

From the date of the establishment of its Medical Service Bureau on Jan. 22, 1934, until Dec. 31, 1934, the Bureau distributed in payment for sickness services \$256,483.20, the physicians' portion of which was \$139,664.05. There were 8433 individual authorizations to

physicians issued in December, 1934, and 8208 in November, bringing the grand total since the creation of the Bureau to 53,542.

We do not know whether the reduction in the dues of the Wayne County Medical Society for the year 1935 is because of earned income, for it will be remembered that the county medical society deducts from income 10 per cent to meet the administration costs of its Medical Service Bureau; howbeit, their dues have been reduced from \$25 in 1934 to \$20 for 1935.

Dr. Donaldson has repeatedly stated that in his opinion the Allegheny County Medical Society could and should, with the addition of 1 or 2 employees to its present staff, initiate in the great Allegheny County industrial district a plan similar to the Detroit Plan, which might within a year or 2 become self-supporting and at the same time give to the people of the county that which they have a right to expect—sickness service to low-income-employed groups, on an easy-payment basis, conceived, inaugurated, and maintained as to quality of service, fairness of charge, and the maintenance of traditional professional relationships, under the leadership of the organization that unites more than 85 per cent of the physicians of the county; namely, the Allegheny County Medical Society. This service in Detroit is not merely scratching the surface, but is an answer to the publicized cry for state sickness insurance, an answer that will not add to the cost of being sick nor impose financially upon taxpayers or the employed now able to arrange for their own sickness costs. It is worthy of a trial by every county medical society in an industrial county.—*Pittsburgh Medical Bulletin*, Feb. 9, 1935.

DOES LIFE BEGIN AT FORTY?

Life Begins at Forty is the astounding title of a book that is enjoying much popular comment. Any statement that seems incredible is naturally startling, and for that reason alone it is often used to command attention. There is much that may be said in favor of middle age of course, providing that one enjoys good health, but to say that life begins then, even though the expression is used in a figurative sense, should not be allowed to go unchallenged.

Osler made the statement 30 years ago that with rare exception creative thought and true inventions were not possible for the human mind after 40.

Now let us see what it means to be 40. Childhood diseases are a thing of the past; measles like love, you only have once. School days and apprenticeship in preparation for life's work may or may not have been a drudgery, but they too lie in the past. Shakespeare refers to "my salad days when I was green in judgment" and surely at 40 good judgment should have arrived. Victor Hugo said that every normal person is a radical at 20 and a conservative at 60. With experience comes judgment and wisdom, there's no question about that; and at 40 there should be a fair balance between the rashness of youth and the hesitation of old age. Then, of course, you have lived 40 years and that's something. The longer you live, the longer you may be expected to live. That is to say, a man at 20 has an expectancy of 38 years, which would bring his span of life to 58; while the man of 40 has an expectancy of only 28 years, but that gives him the greater total, 68. Now then, how about the much vaunted statement that scientific knowledge and enlightenment has pushed the life line back several years?

This is also a statement that calls for qualification. To be sure, the span of life has been lengthened when computed on an average basis, but the more favorable figures are due to a greatly reduced mortality among infants. At 40 we begin to encounter the diseases that are not diminishing but increasing in the toll they take. Diseases due to tissue change and wear and tear, such as cancer, diabetes, heart, and Bright's disease are on the increase, and they are the outstanding enemies of life at this age.

Osler used to say "Happy is the man who finds albumin in his urine at 40; not because he has albumin but because he has found it and will take care of himself." Life does not begin at 40, neither does it end at 40. It would be much better to say that life begins to end at 40 and watchfulness then becomes the watchword of the prudent.—Editorial, *The Journal-Lancet*, Dec. 15, 1934.

COMMENTS AND EXCERPTS

Science and Research

Chewing Gum Found Cause of Asthma and Hay Fever.—Persons sensitive to chewing gum are something new under the medical sun. Dr. A. I. Kleinman, Brooklyn, reports 2 cases in which sneezing, coughing, and nasal and asthmatic symptoms have been traced to chicle, the substance that forms the base of all chewing gums.

Dr. Kleinman's report (*Journal of the American Medical Association*, Feb. 9) brings evidence of "chicle allergy" to the attention of physicians for the first time. Probably other cases of sensitivity may now be traced to this offending substance, it is believed.

Chicle is the solidified sap from a tree that grows in Mexico and Central and South American countries. Chicle, sugar, corn syrup, and flavoring oils are the ingredients of ordinary chewing gum. Medicated gums also employ chicle as a base.—*Science News Letter*, Feb. 16, 1935.

Smoking Mother Transmits Tobacco Products to Child.—When a mother smokes heavily before the birth of her child, some of the substance in tobacco smoke which makes the heart beat faster is transmitted to the blood of her unborn child and also makes its heart beat faster, Drs. Lester W. Sontag and Robert F. Wallace found in experiments conducted at Antioch College.

In their report (*American Journal of Obstetrics and Gynecology*, January) these physicians make no statement concerning harmful effects of maternal smoking upon the unborn child. But taking into consideration the work of other scientists on the effects of nicotine in the milk of smoking mothers, they consider it "not improbable" that maternal smoking before the birth of the child may have permanently harmful effects on the offspring.

A careful study of the newborn children of mothers who smoke heavily before their children are born is, they believe, the next step to be taken in order to reach a scientific conclusion as to whether mothers should or should not smoke while bearing and nursing children.—*Science News Letter*, Feb. 16, 1935.

Serious Heart Diseases Caused by External Nerves.—Ventricular fibrillation, a fatal heart condition, and auricular fibrillation, also a grave cardiac disorder, have been found to be caused by the external nerves of the heart, it is indicated by the researches of

Drs. Louis H. Nahum and H. E. Hoff of the faculty of the Yale School of Medicine. Dr. Nahum reported on his work to the New Haven Medical Association, of which he is the retiring president.

In normal hearts, Dr. Nahum explained, the external nerves, the vagus and accelerator, regulate the beat, but in abnormal hearts, it is these nerves acting with other agents that bring about fatal rhythms.

In cases of benzol or chloroform poisoning, and electric shock, it is the accelerator nerve, together with adrenalin liberated by the glands, that causes changes from the normal heart beat to the ventricular fibrillation, Dr. Nahum said. This fatal heart beat can be prevented by removing the accelerator nerve from the heart and excising the adrenal glands, Dr. Nahum found.

The vagus nerve, on the other hand, was found to promote auricular fibrillation. In the presence of an excess of thyroxin, from the thyroid gland, as in certain goiter patients, or in the case of electric shock, the vagus nerve, according to Dr. Nahum, becomes over-active and instead of following its usual rôle of slowing the heart, brings on the irregular auricular fibrillation.—*Science News Letter*, Jan. 26, 1935.

Experts Find Pneumonia Death Rate Unusual.

—Figures for pneumonia deaths per 100,000 of the population during the last few years have surprised health experts. Something apparently has happened to the affinity between pneumonia and influenza death rates.

High death rates for these 2 diseases usually go together, but during the year just ended and also during the year 1932, the picture was reversed, statisticians of the Metropolitan Life Insurance Company report.

In 1934, reports from all over the country showed the lowest number of influenza cases in many years and the influenza mortality rate among the insurance company's industrial policy holders was one-half that of the previous year. Contrary to expectation, however, there was a pronounced increase in the pneumonia death rate in the United States. On the other hand, 1932 began with an influenza epidemic and closed with the lowest pneumonia death rate on record up to that time.—*Science News Letter*, Jan 19, 1935.

Experiments Compare Value of Radium and Roentgen Rays.—New scientific tools for investigating how well radium rays and roentgen rays act on the human body have just been developed by the National Bureau of Standards.

The apparatus, using blocks of wax instead of the human body to scatter the rays, and a mixture of 3 fluids having atomic patterns similar to the body tissues to absorb the radiation, may prove useful in helping to decide the old question of when to use and when not to use radium in treating deep-seated cancerous tissue.

Often radium rays work better than roentgen rays but frequently the opposite is true. Physicians, in the past, have been able to determine this fact only by actual body therapy. Now, it is hoped, a laboratory test can decide the problem in advance of clinical treatment.

Lauriston S. Taylor, of the roentgen-ray standardization section, and Dr. F. L. Mohler, head of the atomic physics section of the Bureau, are the developers of the new ray-measuring equipment.

"While it has been possible," Mr. Taylor said, "to measure separately the ionization of radium and roentgen rays it has not been possible to compare accurately the results of 2 such tests and decide definitely when and where each may be most efficiently utilized.

"Any suitable method of measuring these rays must be carried out under conditions which physically are the same as those encountered by the radiation when it enters the body.

"To accomplish this we have constructed apparatus which measures the radiation in liquids instead of gases. These liquids have the same atomic properties as the body tissues." The fluids, he added, are carbon bisulphide, tetrahydronaphthalene, and a fluid known as ligroin.

A fine, screen-like mesh of wires properly insulated is immersed in this combination liquid and the ability of the rays to ionize atoms by knocking off electrons is measured.

Below the ionization screen, Mr. Taylor explained, are a series of wax blocks which scatter the rays backward after the fashion of the human body in radiation therapy. These wax blocks are known as "phantom" bodies and take the place of a body in tests.—*Science News Letter*, Jan. 19, 1935.

MEDICAL ECONOMICS

Socialized Medicine.—In an address read before the Society for Socialized Medicine, Bronx Division, Bronx, New York, Sept. 25, 1934, Dr. Winfield Scott Pugh, a New York urologist, read a paper on "Socialized Medicine" (the remedy for our physicians' dilemma).

He said in part: The present situation presents a very serious problem.

A great percentage of our population, although not classified as indigent, cannot afford to pay the physician. Consider, too, the financial status of the doctors themselves is necessarily the deepest concern of organized medicine. In all plans so far submitted, little or no thought has been given to remuneration of physicians. In the C. W. A., the medical man was unfairly dealt with. Not only was the schedule of fees far below standard, but bills were long overdue and some not paid to date. All of this indicates some definite action must be taken in the very near future to relieve the profession of what is becoming an unbearable burden. At the same time, action must be taken to ameliorate the financial status of our doctors. His answer is they are fully taken care of in the Platform of Socialized Medicine.

Why are not important situations discussed with certain medical groups? The answer is, the government knows they are stand-patters.

If the current economic revolution leads to a regulated capitalism, with industrial coöperation under government control, then we shall almost certainly see various schemes of social insurance, such as old age, unemployment, and sickness.

In recent months, approximately 5,000,000 families (almost 18 per cent) have been receiving their medical service from public funds alone. Secretaries of health boards in many sections of the country state at least 30 per cent of the population are receiving free care. Much of this is rendered by physicians who receive not one cent of compensation! In fact, strange as it may seem, many do not want it. Not long ago, a large chemical company asked if Dr. Pugh could supply them with certain information of great importance. He replied that he could not. The interview wound up by him suggesting that they obtain the opinion of 6 experienced physicians, and that they pay these doctors a consultation fee of \$25 for such service. Every doctor gave the company suggestions of great value, but

not one would accept a fee! When he chided some for their actions, the reply was, "I cannot be so commercial."

Will the groups who have been receiving their service free from public funds insist on continued care and medical treatment? The history of our veterans' benefits provides a possible comparable analogy.

The inroads made by governments in one form or another into the physician's practice are very great, and they control more than 60 per cent of the available hospital beds. It requires only a gentle shove to take over the remaining 40 per cent; then we shall have state medicine.

The time has now arrived for physicians to organize and fight for their existence. Forget all the petty bickerings and jealousies with which they have been cursed and join hands against the sinister forces that would enslave them. Note carefully the recent action for the insurance plan in the United Hospital Fund. Under this scheme, 82 per cent of the doctors in the Bronx would be disfranchised as far as practice is concerned. In greater New York, 10,000 physicians would be left out in the cold, watching 4000 of their fellows prepare to care for 7,000,000 people. The American Federation of Labor is on record for health insurance. From talks with leaders, it is apparent they do not know what it means.

Think of the ridiculous fees received from the insurance companies for compensation cases. Make 10 house calls and send in a bill for \$20. What happens when the corporation receives the bill for \$20? More than likely they will send a check for \$12 or \$15, adding that if you are not pleased there is a man in Brooklyn who will do the work for 50 cents a call. The fact that such a statement was made, and that more than one are ready to work for 50 cents, is well known.

Under a plan of health insurance the practitioner will be compelled to do the bidding of big insurance corporations and even may be asked to render odd testimony. It has been done before. With health insurance as proposed here, all those earning over a certain amount—say \$2000—will be required to take out a policy. The rest will be treated free in the clinics, with no compensation.

Who benefits by health insurance? No one but the insurance companies. Do not forget that huge money is behind the bills for insurance medicine, \$120,000,000 that we know of in one instance. Powerful lobbies and the cleverest of agents with tons of subtle propaganda will fill all space available to the public eye. If we accept health insurance, the same deplorable conditions that now exist in compensation work will be evident in every aspect of medical and surgical science.

Private individual or institutional practice, based on the fee system, does not permit true harmony of interest between our profession and the people. Private competitive practice, whether by the doctor or organization, often under the cloak of charity and just as often animated by commercial motives, yielding either profit or losses, usually results in expensive and inadequate physical care of a people. Meanwhile the life and work of the physician is insecure; often poorly paid (often not paid at all), and generally demoralizing or degrading.

As the platform of this organization says: There is only one real remedy for the social malady of inadequate and costly care of the health and illness of a people. Likewise, there is only one remedy for the present social malady working a hardship on both phy-

sician and layman. Also there is but one method for relieving the inadequate compensation and security of the medical man, and that is socialized medicine or state medicine. This means every doctor will be a health officer of his commonwealth.

Socialized medicine implies that the people have a right to adequate care, guaranteed by society, through government and the physician has a right to work and be secured from the same source. Socialized medicine is a system sponsored and financed by the state. It is socially just, economically sound, scientifically correct, desirable, and workable. Socialized medicine must at least be partially controlled by men and medicine.

Such a system must take care of every doctor, give him freedom from all overhead, grant him definite working hours where compatible with circumstances, allow him time for postgraduate work and vacations, and care for him in his advanced years. There is no other system that will accomplish such aims.—*American Medicine*.

[This article affords to our members, who may not have kept informed, an exposé of socialized medicine, to which our State Society and the A. M. A. are unalterably opposed.—EDITOR.]

Government Subsidies Are Socialism's Gifts to Its Gods.—Give a socialist a chance to gouge the government and he is well on his way to a socialist's heaven. For when you gouge the government, you gouge your neighbor, since what you and your neighbor have are all that is owned by the government. It may not always seem so, even though it is, and socialism, too, is like that.

Over in Great Britain what is called "national health insurance" is a gouge so subsidized by the British government and the British employer that the important fact is generally overlooked in discussions that not only is national health insurance largely socialistic, but that the evils in the system are due to this socialistic element.

And if anything can spread faster than erysipelas or cholera it is socialism in any form or manifestation.

The principle of health insurance—that those who would be unable to pay the cost of medical attendance in the ordinary manner should provide for it by insurance—is not beyond criticism. The evils of the socialistic element, as disclosed in the working of the system, have frequently been described in this JOURNAL. An important question for any country in which the introduction of national health insurance is contemplated is "How far will the scheme be socialistic?" Another question is "Supposing it is decided that a moderate subsidy from the state is necessary, as in other countries, what is the danger of the state, under political pressure, being compelled to subsidize more and more and make the scheme more socialistic?" In England, constant demands are being made on the state for more and more, and the expenditure is much greater than was originally proposed. Moreover, there is the danger that under political pressure complete socialization of the medical profession may be brought about.

Under the socialist government this danger was so great that the British Medical Association brought forward a scheme of almost complete socialization, not because the association or the profession wanted it but as a lesser evil than what might have been imposed by the government. With the crushing defeat of that government, this scheme has disappeared. But the socialist party remains active and no one would be bold enough to say that it may not be in power some day both in England and elsewhere. What may be expected from

it is shown by the report in the *Lancet* of an address of Somerville Hastings, a laryngologist, who is a prominent member of the Socialist Medical Association, to the Lewisham Division of the British Medical Association.

Medical services, Hastings said, should be free to every one, payment for them being made out of the taxes on a whole-time salary basis. Money is always a difficulty with patients; if the physician visits frequently, he is thought to be running up a bill; if he tries to avoid such a charge by staying away, he is reproached with neglect. The taxpayer admitted to a hospital would, if able, pay the full cost of maintenance there, but the medical charges would be covered by the taxes. Further, Hastings referred to the services which in recent years have been removed from the province of the general practitioner and provided by the community—preventive medicine, infectious diseases, lunacy, treatment of school children, much maternity work, tuberculosis, venereal diseases. Rheumatism, orthopedics, and cancer might soon be added, he said, and also at present the London County Council had no outpatient departments attached to its hospitals, but they were coming. There was too much time wasted by physicians in going round to see patients. Ill health cost the nation about \$1,000,000,000. The preventive medical service cost \$100,000,000 and the treatment services another \$450,000,000. Hastings doubts whether the state is getting value for its expenditure. Under his scheme there would be unit services for 50,000 people and most of the work would be done in a central clinic by a staff of 20 physicians working in conjunction with specialists. Hospitals and convalescent homes would be attached to the clinics. Private practice would still be allowed to physicians who did not come into the service, but the aim would be to make this so attractive that rich and poor would flock to it.

Now like every other propaganda saturated "parlor-pink" this man Hastings, though trying to demolish the source of the resources assumes the continuance of the resources now provided by a society that still retains, in spite of socialistic adulteration, much of the efficiency of individualism. The complete socialization of the medical profession is not likely to be brought about without the complete socialization of everything else. If this ever should be achieved in any highly industrialized country the results would be much more disastrous than have followed the destruction of the capitalist system in the comparatively backward Russia. Mr. Hastings might ask himself the question: With what efficiency does the Russian government supply the medical needs of the masses, or the much more important needs of food, clothing, and housing? The fatal flaw in all socialistic schemes is that they take no account of the loss of efficiency due to removal of the incentive of individual advantage.—*Editorial, Illinois Medical Journal, June, 1934.*

Sickness Insurance and the Average Citizen.—We fear many opportunities to bring the matter of sickness insurance to the attention of the lay public are being overlooked; a recent experience demonstrated that the average thinking citizen is mightily interested in the proposal. After a brief, informal discussion of the subject before a luncheon club, the speaker was amazed at the number of men who voluntarily expressed themselves as being highly interested in our side of the subject. Don't overlook any such opportunities, but be sure you are prepared to discuss the matter intelligently before you accept an invitation to address any

lay organization.—*Editorial, Jour. Indiana State Med. Ass'n.*

Insuring Hospital Care.—A charter has been issued to the Associated Hospital Service, a New York corporation, to insure hospital care for people of moderate income, monthly dues to be paid by the subscribers. The patient must pay his attending physician, even though this is not written into the contract. It is claimed that the project has been endorsed by the 5 county medical societies of New York City.—*American Medicine.*

New Interest in Group Hospitalization.—Hospitals interested in starting group hospitalization plans in their communities are to receive help from a new and, perhaps, unexpected source. The General Federation of Women's Clubs has decided to make "Group Budgeting for Hospital Care" one of the subjects for study and discussion by its members during the coming year.

In accordance with this decision, which does not necessarily mean an endorsement of the plan by the federation, a statement about group hospitalization has been prepared and sent out by the federation's advisory board on public health and child welfare. Dr. Hugh S. Cumming, surgeon-general of the United States Public Health Service, is chairman of this board.

The statement points out that the cost of severe illness, because of its unpredictability, cannot be budgeted under the every-family-for-itself policy. "Under these circumstances," it continues, "many families let the taxpayers or philanthropic contributors pay the bill. Even in normal times, about a third of the hospital admissions for severe illness are 'free' in local or state hospitals. . . . Self-supporting, self-reliant Americans will welcome a plan whereby hospital services can be placed on a self-supporting basis."

The federation is now preparing a bibliography on the subject. Hospital administrators, also, can help by answering questions and providing information to the clubwomen in their own communities.—*Editorial, The Modern Hospital, Feb., 1935.*

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MEDICOLEGAL

Pharmacist Substituting.—The proprietor of a converted cosmetic shop called the "Helena Cut Rate Drug Store," New York City, was sentenced in special sessions court to pay a fine of \$500, or in default of this to spend 90 days in the workhouse. The specific offense was the violation of the retail drug code by substituting another product upon a prescription. (It is of interest to note that the prescription called for a well-known proprietary emmenagogue.) The prosecution was conducted under the Shackno Act which makes it a state offense to violate the NRA.

Justice Rayfiel before sentence was pronounced severely condemned the practice of drug substitution as follows: "The fact, counsellor, that the defendant was never convicted before need not necessarily be cited as a certificate of good character. There were a number of complaints made against him before. Now, of course, the court always takes into consideration the man's

family and all that. It is really a pitiful thing that people who are served by him also have families and to substitute drugs in any form is a very dangerous proposition, as you very well understand. You are dealing with human safety and possibly human life. The idea of getting drugs that are stale or inefficient is liable to cause a great deal of harm, even beyond the help of a reputable physician. Those things are essential, very essential, counsellor." The defense counsel pleaded: "He is not a chemist, if your honor please is not familiar . . .," and was answered by Justice Rayfiel: "I know, but he employed pharmacists with instructions to do what he told them, not to use their own judgment, but to do what he told them. The probation officer informs us there was one man who actually was discharged by him because he refused to do the things that he wanted him to do; is that right?—Something along those lines."—*American Medicine*, Jan. 1935.

Responsibility of Physician in Regard to Charity Patients.—In response to an inquiry, Mr. Albert Stump, attorney for the Indiana State Medical Association, has written the following:

"It has been held in a number of cases that where a physician undertakes to treat a charity patient his responsibility to the patient for any failure to use proper care and skill is on exactly the same basis as it would be for a paying patient. That may seem a bit harsh, but on further consideration, it will be seen it is a just principle of law.

"When a physician undertakes to treat a person, he impliedly brings to the treatment of that person the obligation to use proper skill and care and not to neglect the patient to his damage, whether the patient is able to pay or not. But, on the other hand, he does not have to accept any patient. There are no conditions apparently, from the decisions of the courts, under which a physician can be compelled to accept a patient. However, when he does accept a patient, his obligation to that patient is not then dependent upon whether it is a paying patient or not."—*Jour. Indiana State Med. Ass'n*.

HOSPITAL ACTIVITIES

The Hospital Association of Pennsylvania Launches Big Legislative Program.—The Hospital Association of Pennsylvania is planning an intensive public relations program for the period ahead. To guide this work properly the association has enlisted the services of a publicity expert, who will serve as public relations assistant to the executive secretary.

Public relations material will be prepared by the executive's office. Distribution will be accomplished through liaison officers throughout the state.

For the present the association's legislative program will receive the bulk of attention, due to the fact that several bills important to hospitals in the state are to be presented at the present session of the State Legislature.

One of these bills provides for allocating a portion of the present automobile registration fees or tax on gasoline for reimbursing hospitals for services rendered to indigent patients injured on the highways.

Several bills will be introduced to provide amendments to the state compensation act in order to eliminate the hardships that the present act places upon hospitals and physicians.

It is hoped to introduce a bill which will permit the state through its department of welfare to pay for the

hospitalization of tuberculous patients who have been referred to general hospitals and accepted by general hospitals as such, at the established ward costs.

A bill also will be introduced seeking to amend the present state liquor act so that hospitals may purchase liquors at the wholesale rates now accorded clubs and hotels.

A bill will be introduced permitting cities, townships, and boroughs to make appropriations to state-aided hospitals for services rendered to indigents of such cities, townships, and boroughs.

The present state milk control act requires hospitals to purchase their milk under code restrictions the same as other users of milk. An effort will be made to secure passage of a bill exempting hospitals and other charitable institutions from the provisions of the milk code.

The legislative committee has recommended that state-aided hospitals should work for an appropriation above that granted in the last 2 bienniums in view of the fact that appropriations now made are based upon the free work done in the year 1930—the start of the depression. —*The Modern Hospital*, Feb., 1935.

Splint 'Em Where They Light.—Through the efforts of the Minneapolis Regional Fracture Committee and the Minneapolis Surgical Society, coöperating with the Committee on the Treatment of Fractures of the American College of Surgeons, the 9 private ambulances of the 2 private ambulance companies in Minneapolis are now equipped with the approved splints for transportation of fractures of the upper and lower extremities.

The Thomas-Murray hinged splint for transportation of upper extremity fractures and the Keller-Blake hinged half-ring splint for transportation of fractures of the leg and thigh bones are carried on all private ambulances and will be applied by the ambulance attendants under the direction of the attending physician, if present.

The splints will be left on the patient until they are removed by the attending physician at the hospital after the roentgen-ray study has been made. The hospitals will carry an extra supply of these approved and standardized splints for exchanging with the private ambulances as the splinted patients are brought in.

The private ambulance companies are arranging to demonstrate this method of splinting fractures and these splints at all hospital staff meetings so that all members may see just how they are equipped to "Splint 'em where they light."—*Editorial, The Journal-Lancet*, Dec. 15, 1934.

Ensuring Better Staff Attendance at Necropsies.—There has been a marked increase in many institutions in the percentage of bodies brought to necropsy, which is a commendable advance in the business of adding to our knowledge of scientific medicine. While necropsy percentages may be higher than formerly, the percentage of attendance on the part of members of visiting staffs approaches the zero mark in many institutions.

In only rare instances does the distinguished internist find his way to the morgue. He is usually content to ask his intern what was found in a certain case. Interns are frequently so busily concerned in meeting their various chiefs that the presence is not so routine in the necropsy room as it should be. When staff members are urged to attend necropsies, they usually reply that they did not know when the study was to be made or that it occurred at a time of day that conflicted with their office hours.

Various methods are employed to acquaint the physician who was in charge of a patient with the fact that a necropsy is to be performed. The telephone operator may be instructed to call the physician and notify him of this fact. The intern, resident, or the nurse in some instances is designated to do this; and yet necropsy rooms remain empty in so far as the staff is concerned. A room is allocated to the staff for lounging or reading purposes in the average hospital. It is a good plan to post information in this room regarding forthcoming necropsies. A blackboard is suitable for this purpose. The fact that a necropsy is to be performed, the name of the patient, the hour and the physician upon whose service the patient was treated may be written on the blackboard. An endeavor should be made to bring about the performance of necropsies at a time when visiting physicians can be present. This is a difficult angle to the problem, because of the likelihood of losing necropsies unless they are performed promptly. A list of physicians in attendance at necropsies may be presented at the regular monthly staff meetings. Many hospitals have a rule that requires each chief to be represented at necropsies.

Whatever system is adopted, continual pressure by a medical officer is necessary and the compilation of the attendance statistics, with the routine urging of members of the staff to attend as many necropsies as possible, are fruitful measures in increasing staff interest.—*Editorial, The Modern Hospital, Aug., 1934.*

Should Information Concerning Patients Be Given by Mail?—Requests for information relative to diagnosis or results of laboratory studies frequently reach the superintendent in his daily mail. Many are couched in phrases that indicate a genuine interest in the patient's welfare.

Queries from legitimate charitable organizations or from social-service departments of other hospitals are of course answered. But when an individual requests facts concerning a patient great caution should be exercised. Many institutions that refuse to give diagnoses by telephone do not hesitate to do so by letter. Inquiries as to the result of a Wassermann reaction or a vaginal smear or questions regarding any personal or social data should not be answered through the mails.

A personal interview is perhaps a safer procedure, but even this method of giving out information is often dangerous to some innocent person. Perhaps the best plan to adopt is to insist on the presence or the written authorization of the patient before any facts whatsoever concerning his diagnosis or treatment are given. It is the first obligation of the hospital to protect every interest of its patients.—*Editorial, The Modern Hospital, Nov., 1934.*

Obligations of Staff Physicians.—There are many physicians upon whom rests lightly the obligation to support the hospital by something more tangible than a daily or thrice weekly visit thereto.

To visit the wards and conduct the dispensaries of a hospital are important duties. To deal justly with patients, to treat disease humanely and skillfully are splendid accomplishments. But something more is rightfully expected of the physician who accepts a position on a hospital staff. The institution cannot exist unless he is the means by which the hospital secures an income from the use of its private rooms. Scientific distinction can hardly be possessed by a physician without an accompanying growing clientele. If the staff physician chooses to divide his patronage into too many parts by

accepting multiple appointments, neither physician nor hospital will benefit.

To demand absolute loyalty to an institution is the right of the board which has appointing power. But one course is open when a physician fails to meet this obligation—to replace him by another who will.—*Editorial, The Modern Hospital, Aug., 1934.*

Hospital Staff Retirement.—In common with many other fixed rules, that pertaining to the retirement age of physicians from hospital active staff positions needs more flexible interpretations or elastic limits.

Many physicians who reach the retirement age are still extremely valuable members of the staff—progressive, modern, fully as alert as their younger brethren, vigorous, and possessing the compound attribute of skill, tempered by experienced judgment. Loss of these men is a misfortune to the hospital especially because of their ability to train understudies who will eventually succeed to positions of trust.

Conversely, other men are too busy, less vigorous, have too many other interests, lose their more youthful enthusiasms, or are either unwilling or incapable of medical progress. Their retention on an active staff is disadvantageous from 2 angles: First, they may either neglect or be unwilling to carry their share of the necessary work; and second, they are a barrier to the promotion and desirable advancement to responsibility of younger and more capable men "waiting in line," who not only need but should be given larger opportunities for training that is often gained only by practical experience.

It would seem to improve the whole situation if the hospital trustees, in their wisdom, provided a more flexible retirement rule, with a minimum age at which the doctor might voluntarily retire and be retained on the consulting staff, and a maximum age when retirement was required, with several years of interim in which the trustees might, at their discretion, ask the individual to retire without embarrassment to themselves or difficult explanations to the physicians.

Advancing age, sometimes coupled with indolence, is like the widely flouted "halitosis"; "His best friends can't and won't tell him."—*Editorial, The Rhode Island Medical Journal, Jan., 1935.*

PHYSICAL THERAPY

Short Radio Waves

Recently there has been extensively marketed a new type of high-frequency machine, for which extravagant claims have been made. The machine resembles in construction the short radio wave transmitters used for police broadcasting, with the exception that the electrical energy is not dispersed from antennæ, but confined between condenser plates. It is said to be an improvement upon the old type diathermy apparatus. It is doubtful whether the machine has been sufficiently perfected to warrant its extensive use.

The physician has been told that the apparatus is simple to use; that burns are impossible; that treatments may be given through the clothing; that uniform deep heating of the body tissues is possible; and that the waves have a specific lethal action upon bacteria.

Actually, the machine is complicated; burns are quite common; it is unsafe to give treatments through clothing because perspiration forms, and arcing and burning occur in the drops of moisture; and recent studies have indicated that uniform deep heating of the body tissues is not produced.

In addition, there is no accurate method of measuring the dosage of short radio waves at the present time. The ammeter, which measures the dosage with ordinary diathermy machines, is of no value with short-wave apparatus.

Possibly the only way that short radio waves will destroy bacteria is according to the method suggested in the *Cleveland Plain Dealer*, which states: "Germs that have a sense of humor can easily be killed by radio. Just let them hear some of the antiseptic claims that come out of the loud speaker and they'll laugh themselves to death."

Before short-wave machines are used extensively, they should be more carefully perfected; some method of measuring dosage should be devised; we should learn more about the physiologic effects of these waves. The ideas that they are simple to operate and that treatments may be given through the clothing should be dispelled, and the thought that they produce uniform heating of body tissues should be discarded.

They do appear to offer considerable promise of usefulness if they can be developed cautiously. Physicians would do well to use these devices with care until more is known about them.

Treatment for Common Warts.—Sutherland-Campbell first used the following procedure on a patient who was given a maximum of roentgen and radium therapy for warts that involved the finger tips of both hands without effect. With a fine spark, the verrucous surfaces were seared lightly. The patient returned at weekly intervals, and the procedure was repeated. Involution and desquamation of the lesions occurred within 6 weeks. At this time the author attributed the reaction to (1) a result of the combined action of the treatment with rays of short wave length and the superficial electrodesiccation or (2) spontaneous healing. Use of the procedure for 12 months has demonstrated to him that it is the method of choice and is the solution of what can be a vexing problem. The degree of pain experienced during treatment, except in rare instances, is negligible and tolerated easily. In only 1 case has it been necessary for the author to use procaine hydrochloride. The method is superior to surgical removal or electrodesiccation proper. The method may be termed superficial fractional desiccation. In employing it the surface of the wart is cleansed. A moderate spark is used commencing inside the margin of the corneus collaret, the border of the wart is circled, and then only the surface of the water proper is seared and carbonized. The procedure is repeated at biweekly intervals. There have been no recurrences following 5 or 6 treatments, which is the number given ordinarily. Only 1 patient with plantar warts has been subjected to this form of therapy, with the usual good result.—*J. A. M. A., Feb. 9, 1935.*

INDUSTRIAL MEDICINE

The Ear and Industrial Medicine.—The ear and industrial medicine was the subject of a discussion at the French otorhinolaryngologic congress in October, 1934. Only 5 countries (Bulgaria, Czechoslovakia, Germany, Mexico, and Russia) have placed deafness that is the result of the worker's occupation on an equal footing, so far as indemnity is concerned, with invalidity due to lead or mercury poisoning. There is no law of this kind in France.

Deafness from the standpoint of industrial medicine may be the result of injury to the skull, electricity,

compressed air, or intoxications and is also found in those engaged in occupations such as metallurgy and steel construction. The majority of cases of deafness in workers are due to traumatism of the head. Longitudinal fractures of the petrous portion of the sphenoid traverse the middle ear, while transverse fractures are more likely to involve the internal ear. The otologist is consulted most frequently in cases in which there has been a simple concussion of the brain without accompanying skull fracture. There is an absence of any relation between the degree of the injury and its sequelae. The patients in this first group are more likely to suffer from deafness than from vertigo.

Deafness due to electricity does not occur very often. Deafness may result in cases in which the current has not traversed the ear. In patients in this group the signs of deafness may appear quite a long time after the accident, thus making it difficult to determine the part the electrical shock has played. Accidents due to lightning belong in the same group. In divers or caisson workers the deafness is due to microscopic air emboli as shown by Paul Bert, the cochleovestibular apparatus being especially affected. Sudden deafness, vertigo, or both occurs in most cases, but in some the symptoms do not appear immediately. Deafness or vertigo in such cases is not always permanent. Deafness due to intoxications is also not frequent, being seen most in the lead and next often in the mercury, arsenic, or phosphorus industries. Deafness in those occupied in boiler or other riveting or railroad work is of increasing interest to otologists and is growing in proportion to the development of machinery in general. The otologist in making his report must always keep in mind the possibility of malingering; hence a thorough knowledge of the physiology of the internal ear is necessary.

In the discussion, the part played by modern mechanical devices was emphasized and attention called to the deafness of soldiers in machine gun companies. All cases of head or face injury should be examined as soon as possible after the accident.—*J. A. M. A., Jan. 26, 1935, p. 330.*

Dangers to Health of Uninterrupted Working Periods.—The medical committee of the German Society for Industrial Hygiene has set up "principles for regulating the hours of work and of recesses from the standpoint of health." These principles state that the uninterrupted working period is detrimental to health, and they reject it. They recommend the introduction of a divided working time wherever the management of the establishment and the transportation permit it. They recommend a noon recess of 2 hours, so that the worker may be enabled to go to his home. When this is impossible, there should be suitable recesses so that the workers may take a warm meal at their place of work at noon.—*J. A. M. A., Jan. 26, 1935, p. 332.*

PUBLIC HEALTH

An Analysis of Physical Examinations for the C. C. C.—Lieutenant Colonel Nelson Mercer states that valuable data may be derived from the various activities connected with enrollment of the large number of young men who now compose the Civilian Conservation Corps in camps throughout the country. From a medical point of view much interesting information is obtained from the physical examinations of these men from age 18 to 25 who represent every class of society.

From this experience, we may arrive at a fair average to be expected in the selective service draft in a national

emergency. It may be stated that the physical standards set forth in Army Regulations 40-105 were not rigidly enforced during these examinations inasmuch as all men who were organically sound and considered by the medical examiners as capable of performing manual labor in forest and other camps were accepted for service in the C.C.C. as an emergency relief measure. Therefore, many young men with minor physical defects were accepted for this work who would not qualify for service in the army in time of peace. However, a situation similar to this would probably develop in a national emergency when physical standards would be lowered in order to admit a larger number of men for war service.

A summary of results of the physical examinations made at the Army Recruiting Station, Richmond, Virginia, for the Fourth Enrollment Period of the C.C.C., Oct. 1 to 15, 1934, revealed the following:

There were 1405 young men approved by welfare and relief agencies in Richmond and surrounding counties, 780 white and 625 Negroes. Of this number, 577 white and 315 colored were found physically qualified. There were rejected for physical or mental disability 203 white men and 310 colored men.—*The Military Surgeon, Feb., 1935.*

Surgeon-General's Report to Congress.—There is yet no evidence that the depressed economic conditions of the past few years have lowered the general health of the people of the United States, according to the Surgeon-General of the United States Public Health Service. This information is presented in his annual health accounting to Congress which reports the activities of his organization for the 136th year of its existence. While death rates are available from year to year as an index to health, the Surgeon-General has not relied upon these rates alone but has instituted special studies of actual sickness over a period of several years, beginning in 1929, in 10 localities where the depression has been most severe. These studies show higher sickness rates in the economic group rated in comfortable circumstances in 1929 but subsequently reduced to the lower economic class. The most important reasons given for the continuation of general good health are the vast work of the relief agencies and the fortunate absence of widespread epidemics.

It is interesting to note that for the calendar year 1933 the general death rate, 10.5 per 1000 population, was the lowest ever recorded in the United States; and the rate for 1932 was next lowest, 10.8 per 1000. While health conditions remained comparatively good for the first half of 1934, the death rates for many localities were higher than those for the preceding year.

In spite of the economic conditions, the number of deaths from tuberculosis continued to decrease. For the calendar year 1933 the death rate was 59 per 100,000 population—5 per cent below the previous low minimum. The typhoid fever death rate was also the lowest ever recorded—only 3.5 deaths per 100,000, which was 8 per cent below the previous minimum. The diphtheria rate dropped to 3.9 per 100,000—also the lowest death rate ever recorded by the Public Health Service for this disease.

Although there were no widespread epidemics during the year under report, there were 3 major local epidemics. An unusual outbreak of amebic dysentery occurred in Chicago in 1933 during the Century of Progress Exposition. Many people became ill after returning to their homes, but no secondary epidemic was reported outside of Chicago. Approximately 700 cases occurred

or originated in Chicago. The epidemic was caused by defective plumbing. An outbreak of epidemic encephalitis, with some unusual clinical features, occurred in St. Louis and the surrounding country with about 1100 cases and more than 200 deaths; and California had an epidemic of poliomyelitis in 1934.

Smallpox, the principal scourge of mankind in the last century, still caused more than 75,000 deaths in countries sufficiently advanced in health matters to keep vital statistics records; but less than 40 of these deaths occurred in the United States, although nearly 7000 cases of the disease were reported. Several European countries have advanced so far in preventive activities that they did not have a single case of smallpox in 1933.

The birth rate continues to decline in the United States. The rate in 1933 was 16.4 per 1000 population, as compared with 17.4 in 1932. Fortunately, however, the infant death rate also continues to decline. In 1933 there was one death in the first year of life for every 17 children born, while in 1915 one out of every 10 died.

The Hearing Survey and the Doctor.—With the advent of hearing tests that are being conducted throughout the schools of the state, it is well for us to consider how best we can assist this worth-while project. We all know that the time to correct difficulty in hearing is in the early stages before permanent changes have taken place. We also know that patients seldom seek advice early, especially if only one ear is affected.

The tests that are being made are mostly with the audiometer, by means of which groups of children may be tested at one time. The hearing of each ear is taken separately and a record is made of each child's ability to hear the words that continually become fainter as they come from the audiometer. If there is a marked loss of hearing in one or both ears, the parents are notified and they are requested to take the child to the family doctor. Parents, generally, do not want to believe there is anything wrong with their child, except that he or she is a little inattentive. They may, however, decide to take their child to their family physician, and it is important to start them on the right track at their first visit.

To check the hearing, one ear should be tested at a time, the patient either closing the eyes or turning away from the doctor. One ear may be closed by the patient's moistened finger in the meatus or by pressing the tragus cartilage.

In a fairly quiet room a patient with normal hearing should readily hear a low whisper or a low conversational voice at 20 feet. This of course, varies in case other noises interfere. A patient with marked obstructive deafness may hear the high whispered note better than the low conversational tone, while one with nerve deafness would hear the low tones better.

A thorough examination of a patient with poor hearing should include: (1) inspection of the external auditory canals for any obstruction such as ear wax, foreign body, pus, new growth, or anything that will prevent the sound waves from reaching the middle ear; (2) examination for the presence of adenoids because of their proximity to the eustachian tubes; (3) ruling out the tonsils as a possible focus of infection or the cause of frequent colds; (4) inspection of the nose for evidence of sinus infection or obstruction to breathing.

In advanced hard-of-hearing cases, it is advisable that the patient have not only a local but a general physical examination, including urine and blood examination and an investigation as to possible deficiency in some glandular secretion.

There are, of course, cases of hopeless progressive hereditary deafness in which no form of treatment will be of avail, but no case should be considered hopeless unless a thorough examination has been made. When serious deafness has arrived, resort to lip reading is recommended.

In conclusion, take into careful consideration any patient coming to the office with a history of hearing difficulty, whether it has been noticed by himself, his parents, his teacher, or the nurse who has conducted his first hearing examination. If this is done, the progress of many cases of failing hearing will be checked, and we will have broadened the field of preventive medicine. —*Editorial, Minnesota Medicine, Dec., 1934.*

Morbidity in Pennsylvania in December, 1934

Locality	Disease				
	Diphtheria	Measles	Scarlet Fever	Typhoid Fever	Whooping Cough
Aliquippa	0	2	25	1	0
Allentown	2	9	8	0	20
Altoona	1	11	15	1	7
Ambridge	0	0	0	0	0
Arnold	1	2	5	0	0
Beaver Falls	0	1	11	0	4
Bellevue	0	6	0	0	0
Berwick	0	1	43	0	0
Bethlehem	1	1	0	0	22
Braddock	2	1	1	0	4
Bradford	0	29	0	0	0
Bristol	0	0	1	0	5
Butler	0	304	3	0	1
Canonsburg	0	10	2	0	0
Carbondale	0	0	0	0	0
Carlisle	0	0	0	1	0
Carnegie	0	2	0	0	6
Chambersburg	0	0	21	0	0
Charleroi	0	29	0	0	0
Chester	1	0	0	0	9
Clairton	0	0	2	0	0
Coatesville	0	0	2	0	0
Columbia	0	0	0	0	0
Connellsville	0	12	6	0	0
Conshohocken	0	0	0	0	7
Coraopolis	0	1	11	0	0
Dickson City	2	0	0	0	0
Donora	0	49	7	0	6
Dormont	0	1	0	0	0
Du Bois	0	3	5	0	1
Dunmore	0	2	10	0	2
Duquesne	0	0	3	0	1
Easton	4	1	7	0	11
Ellwood City	0	0	1	0	0
Eric	0	6	18	0	0
Farrell	0	0	2	0	0
Franklin	0	5	15	0	1
Greensburg	0	0	0	0	0
Hanover	0	0	12	0	0
Harrisburg	2	21	9	0	27
Hazleton	5	10	4	0	19
Homestead	5	0	22	0	0
Jeannette	0	4	0	0	0
Johnstown	8	2	5	0	3
Kingston	0	9	0	0	0
Lancaster	1	1	25	0	3
Latrobe	1	0	2	0	0
Lebanon	0	0	2	0	0
Lewistown	1	0	2	0	1
McKees Rocks	2	0	1	0	0
McKeesport	0	1	1	0	1
Mahanoy City	0	0	0	0	3
Meadville	0	0	6	0	0
Monessen	1	17	6	0	6
Mount Carmel	2	0	0	0	0
Munhall	0	0	8	0	0
Nanticoke	0	34	5	0	0
New Castle	0	2	13	0	0
New Kensington	1	16	3	0	1
Norristown	0	0	4	0	7
North Braddock	1	2	3	0	3
Oil City	0	0	2	0	21
Old Forge	0	0	0	0	0
Olyphant	0	0	1	0	0
Philadelphia	33	20	263	0	317
Phoenixville	0	1	0	0	0
Pittsburgh	22	133	137	3	84
Pittston	0	0	0	0	0
Plymouth	2	0	0	0	0
Pottstown	0	1	19	0	0
Pottsville	1	1	3	0	0
Reading	4	3	14	0	41
Seranton	0	53	11	0	12
Shamokin	0	0	0	0	0
Sharon	0	10	2	0	1
Shenandoah	0	0	6	0	0
Steelton	0	0	0	0	7
Sunbury	0	0	1	0	1
Swissvale	0	2	1	0	4
Tamaqua	1	0	9	0	2
Taylor	0	2	2	0	0
Turtle Creek	0	3	4	0	0
Uniontown	0	325	6	0	0
Vandergrift	0	1	14	0	3
Warren	0	1	0	0	0
Washington	0	2	15	0	1
Waynesboro	0	1	2	0	3
West Chester	0	0	0	0	0
Wilkes-Barre	11	1	7	0	7
Wilkesburg	1	18	11	0	2
Williamsport	0	54	13	0	8
York	0	0	9	0	4
Townships					
Allegheny County:					
Harrison	1	1	0	0	1
Mt. Lebanon	0	0	0	0	0
Stowe	1	1	1	0	0
Delaware County:					
Haverford	0	0	4	0	3
Upper Darby	4	0	9	0	3
Luzerne County:					
Hanover	1	1	1	0	2
Plains	1	2	2	0	0
Montgomery County:					
Abington	0	0	2	0	4
Cheltenham	0	0	0	0	3
Lower Merion	1	0	1	0	6
Total Urban ..	128	1244	929	6	721
Total Rural ...	129	3372	1101	30	670
Total State ...	257	4616	2030	36	1391

TUBERCULOSIS ABSTRACTS

A Review for Physicians

PREPARED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Published through the coöperation of the Pennsylvania Tuberculosis Society and The Medical Society of the State of Pennsylvania

MEDICAL students and nurses in training face a definite tuberculosis hazard because of frequent exposure to the disease and because, perhaps, of their youth. What can be done to protect them and what advice should one give? A correspondent of the *Journal of the American Medical Association* recently asked whether or not hospitals should receive for training only those applicants with a positive tuberculin reaction. This was answered by summarizing the results of recent investigations and by describing the sequence of events following infection with the tubercle bacillus. The modern conception of the disease merits the attention of every physician, particularly the general practitioner, for it is he who sees the disease in its early or presymptom stage. Quotations from the article follow.

TUBERCULOSIS IN NURSES

The article cites the findings of Heimbeck of Oslo, Geer of St. Paul, Myers and Diehl of Minneapolis, Lees of Philadelphia, Shipman and Davis of California, Ross of Manitoba, Jones of New Zealand, Ferguson of Saskatchewan.

In interpreting the results of various authors who have studied tuberculosis among nurses, one must realize that 2 types of tuberculosis develop in the human body, the first infection and the reinfection type. The former begins to develop on tissues that are not allergic to tuberculo-protein. The natural defense mechanism of the body brings it under control and has it so encapsulated before allergy can be detected that it does little or no harm in most cases. It is so benign that most persons who have it do not know when it developed. This is the type of tuberculosis that formerly was prevalent among children; but through antituberculosis measures many children now escape it and reach young adult life free from contamination with tubercle bacilli. If they later come in contact with tubercle bacilli, as many students of nursing do, and are not adequately protected against exposure to patients suffering from tuberculosis, they take tubercle bacilli into their bodies. These

bacilli find lodgment on tissues that are not allergic and there the tissues react as to a foreign body; in short, the reaction is not specific, and the result is no different than it would have been had their first infection occurred in childhood. In the majority of these cases there is no external manifestation aside from the positive tuberculin reaction.

"In the case of the reinfection type of tuberculosis, the story is quite different. Here tubercle bacilli find lodgment on allergic tissues and a specific reaction follows. This consists of acute inflammation, and if the bacilli are not brought under control in a short time there is necrosis of the tissue as well as stimulation of fixed tissue cells, resulting in fibrosis. This is what is designated as 'clinical tuberculosis.' It is the type that results in most of the illness and death from tuberculosis in the human family. Obviously, it can develop only in the bodies of persons whose tissues have previously become allergic to tuberculo-protein through the presence of the first infection type of tuberculosis. This type of disease may develop soon after the first infection type renders the tissues allergic or at any subsequent time in life, depending on whether tuber-

cle bacilli are taken into the body from outside sources or whether tubercle bacilli are set free from the foci of first infection already present. In a small number of nurses who become infected for the first time, bacilli are carried to the visceral pleura soon after the first infection occurs, and there on allergic tissue they produce pleurisy with effusion. Likewise, from a first infection focus located in or near the central nervous system tubercle bacilli are carried into the ventricles of the brain or directly into the subarachnoid space and on this allergic tissue they produce diffuse tuberculous meningitis. Again the regional lymph nodes, which drain the first infection focus and become a part of the picture of the first infection type of disease, may rupture into a blood vessel and miliary disease results. And so on with numerous other possibilities, once bacilli are lodged in the body. It is possible that the danger of rupture of capsules of primary foci and the rupture of regional lymph nodes involved with tuberculosis is greater soon after the lesions have developed than in subsequent years, since in infancy and early childhood, in places where large numbers of infants are contaminated, tuberculous meningitis and miliary tuberculosis are prevalent and in recently infected students of nursing, pleurisy with effusion is quite common. However, Sweany on the basis of pathologic examinations (*Am. Rev. Tuberc.*, 27:559, June, 1933) has suggested that nature may defeat her purpose in that she first encapsulates tubercle bacilli and in subsequent years resorbs the capsule, thus setting free tubercle bacilli. Therefore there is both an immediate and a remote danger from the first infection type of disease. Moreover, at all times there is the danger of tubercle bacilli from exogenous sources entering the body and finding lodgment on allergic tissues.

"Thus, a large percentage of the cases of tuberculosis reported among students of nursing previously negative to the tuberculin test are only those of the first infection type of disease. In previous times they would not have been known to exist, but now with the tuberculin test and other phases of examination they are detected when no symptoms or physical signs are present. Even those who developed erythema nodosum, probably as a result of a high degree of allergy, would not have been diagnosed tuberculous, because it is only recently that the close association between this condition and the first infection type of tuberculosis has been generally recognized. A few of these students, after developing the first infection type of disease and

becoming allergic, have developed chronic pulmonary tuberculosis, pleurisy with effusion, tuberculous meningitis, miliary tuberculosis, and other forms of the reinfection type of disease, just as one would expect. At the same time, wherever observations have been made among those who entered the institutions positive to the tuberculin test some of these have developed the reinfection clinical forms of the disease.

"Unfortunately, after the first infection type of tuberculosis produces allergy there is no way of determining how much contamination enters the body from exogenous sources. It seems reasonable to believe, however, that if all the uncontaminated students become infected during their training, those who are already contaminated when they enter are reinfected. It is a well-established fact that tubercle bacilli, whether from endogenous or exogenous sources, are rather quickly fixed in the tissues, where they lodge by inflammation or otherwise. Unlike many pathogenic microorganisms, they are not destroyed but survive over long periods and often eventually produce clinical tuberculosis. Thus, a period of years may intervene between the reinfection and the development of illness, a period that is not covered by the duration of the course in nursing. Therefore, bacilli sown while in training may result in serious disease years after students have graduated. In fact, Shipman and Davis have found that most of the nurses who developed clinical tuberculosis during training were positive reactors on entrance to the school.

"For any hospital to adopt the policy of admitting to its school of nursing only girls with positive tuberculin reactions, either consciously or unconsciously, would be to avoid the issue. Obviously, there would be no way to determine how much contamination that institution transmitted to its students. It would not be in a good position to solve its own problems.

"No hospital is on record as having adopted the policy of admitting to its school of nursing only girls with positive tuberculin reactions. Moreover, if the tuberculosis-control program continues, such a hospital would soon find itself without student nurses, as the incidence of positive reactors, already low, is definitely decreasing among girls of the student nurse age. Since there is no possible way of securing a tuberculosis-proof nurse, the other alternative of providing as nearly as possible a bacillus-free environment for the nurse must be accepted."

Tuberculosis in Nurses, Jour. of the A. M. A., Dec. 22, 1934, p. 1968.



THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA

OFFICERS' DEPARTMENT

WALTER F. DONALDSON, M.D., *Secretary*, 8104 Jenkins Arcade, Pittsburgh, Pa.

PATIENCE IS REQUIRED

It has come to the notice of the president of the society that certain members have complained that they have not been promptly informed concerning health bills introduced in the 1935 Legislature. Up to March 1 it has not been possible to give definite information concerning bills that have been introduced.

In February the only completed bill before the House Committee on Insurance was that drawn by the chiropractors, who again seek a separate licensing board. Call on your senator and representatives to use their influence to defeat this bill (H. B. No. 494).

Amendments to the Workmen's Compensation Law are in course of preparation, and will no doubt be presented to the Legislature early in March.

At this writing the long-promised bill of the American Association for Social Security, providing for compulsory health insurance, has not been introduced.

Let me remind you again that we shall need the active legislative support of every member of our Society.

"Read your State JOURNAL and your county society bulletins to keep up-to-date," or write to Chairman C. L. Palmer for additional information.

The Public Health Legislation Committee of your county medical society is constantly being contacted by the similar committee of our State Society.

When the call comes to any county society member from either of the above committees to interview his or her state or federal senator or assemblyman, each must respond promptly and efficiently.

KEEP THIS JOURNAL

It has been suggested that each member of the Society retain on his desk, at least until Jan. 1, 1937, this issue of THE PENNSYLVANIA MEDICAL JOURNAL. It contains the names, the numbers of the districts, and the home addresses of all Pennsylvania legislative representatives at Washington and at Harrisburg, the majority of whom will serve until the above date.

NON-BUREAUCRATIC METHODS

In this department in the January issue of the JOURNAL appeared the following regarding Dr. Edith MacBride-Dexter, recently appointed Secretary of Health of our Commonwealth:

The executive ability inherent in the character of Dr. MacBride-Dexter and developed through 10 years of efficiency as a leader in the organized medical profession will serve well the health interests of the Commonwealth. She will bring to her new position not only executive experience but sound medical training and experience and an appreciation of the value of non-bureaucratic methods in the practical application of sickness-prevention methods exclusive of hygiene and sanitation as applied to water and food supplies and the limitation of epidemic illnesses. Dr. MacBride-Dexter's colleagues throughout the state will welcome and support her leadership in the administration of such service.

In line with the thought above quoted our new State Secretary of Health on February 1 addressed the following letter to each component county medical society secretary.

A careful reading discloses, first, a declaration of a desire to coöperate, followed by 6 direct questions, and in conclusion a request for an answer.

FEBRUARY 1, 1935.

DEAR DOCTOR:

It is my wish as Secretary of Health of Pennsylvania that the Health Department shall coöperate with the

members of the county medical societies of the Commonwealth. The purpose of the department is preventive medicine and sanitation.

1. Are you satisfied with the state tuberculosis clinics, baby clinics, and genito-urinary clinics as carried on at the present time?

2. Would you prefer to carry on the clinics and have the State Department of Health stand by ready to help?

3. In your opinion are the field workers and organizers of any help?

4. Will you take charge of immunizing the children against diphtheria on May Day if the State Department of Health furnishes the material?

5. Will you give me your constructive criticism of this department?

6. Will you ask the members of your society to telephone their reports of cases of communicable disease to the health officer immediately, so that the premises can be placarded at once?

I feel that we will all be benefited if we work together. Please give me an answer at your earliest convenience.

With all good wishes,

Sincerely yours,

EDITH MACBRIDE-DEXTER, M.D.,

Secretary of Health.

Intelligent replies will combine the first and second questions of Dr. MacBride-Dexter's letter and will express each county society's current reaction to a form of "state bureau practice" frequently criticized as being in competition with "private medical practice." In the face of past protests and of present declarations that the organized healing professions should control professional services, whether they be under the State Emergency Relief Board or county poor boards, or under threatening compulsory health insurance systems, the replies to the Health Secretary's questions 1 and 2 will be prophetic. If they were asked by Commissioner of Health H. F. Vaughan of Detroit, we could anticipate the reply from the Wayne County (Michigan) Medical Society. Undoubtedly the reply would be: "Our county medical society is so organized as to be able, with appropriate coöperation through the Health Department, to furnish equitably, efficiently, and economically all necessary professional services."

Is it too much to hope that a dozen of our largest county medical societies will reply similarly to Secretary MacBride-Dexter before January 1, 1936? In any event each county medical society should prepare with due care and courtesy its reply to Secretary MacBride-Dexter's letter of Feb. 1.

MARCH 31 AND MEDICAL DEFENSE BENEFITS

Members who have not paid their 1935 county society dues should bear in mind that medical

defense benefits are not extended to those whose annual dues are not received by the State Society Secretary on or before March 31. Reinstatement is easily possible, but protection against suits for alleged malpractice can never be restored for the period from Jan. 1 to the time of payment of the delinquent dues.

On Feb. 28, 1935, this office had received the annual assessments of 4218 members; on the same date 1934, of 3604 members.

The percentage of 1935 dues received on Feb. 28 from certain component county societies is herewith indicated:

Juniata County	100%
Warren County	100%
Susquehanna County	93%
Potter County	86%
Franklin County	80%
Huntingdon County	79%
Carbon County	78%
Columbia County	76%
York County	75%
Montour County	73%
Montgomery County	73%
Mifflin County	73%
Clarion County	71%
Lebanon County	70%
Cumberland County	69%
Greene County	69%
Lancaster County	69%
Berks County	68%
Bradford County	68%
Dauphin County	68%
Clearfield County	66%
Lycoming County	66%
Northumberland County	66%
Monroe County	66%
Butler County	64%
Allegheny County	62%
Somerset County	62%
Beaver County	61%
Delaware County	61%
Bedford County	59%
Fayette County	59%
McKean County	58%
Venango County	58%
Lehigh County	55%
Chester County	51%
Adams County	50%
Erie County	50%
Mercer County	50%
Philadelphia County	50%
Washington County	50%

REPORT OF DELEGATES TO SPECIAL SESSION, HOUSE OF DELEGATES, AMERICAN MEDICAL ASSOCIATION

February 18, 1935

Fellow Members of The Medical Society of the State of Pennsylvania:

A complete delegation (10) representative of our State Society has just returned from Chicago, having spent 2 full days uniting with representatives from all other state medical societies in earnest deliberations re-

garding the quality of the medical service which is to be available to the American people during the next 25 years.

The unanimous answer from the duly chosen representatives of 100,000 American physicians to those persons who would suddenly precipitate medical service into destructive and expensive governmental control is to be found in the sixth paragraph of the attached report—while plans for uninterrupted progress in such service are outlined in the last 3 paragraphs of the report.

The imminence of the adoption of socialized health legislation in the Federal Congress and in the Pennsylvania Legislature is currently apparent to all informed persons.

Your medical journals and bulletins have recently been filled with information on this subject, and surely it has been discussed at your medical society meetings. If you are not familiar with the claims of the proponents of sickness service under compulsory health insurance plans, and with its history in Europe, someone has failed to meet his responsibility.

In any event, the responsibility is now yours—inform yourself, your fellow doctors, and your friends on the subject. Communicate your sincere alarm to your United States senators, your congressman, your state senator, and assemblyman—they certainly know much less about this threat than you *should* know.

Most of the undersigned have just contributed 3 or 4 days during this busy season in devotion to a movement on the part of 100,000 doctors to assure the American people of a continued flow of progressive medical service. Can you do less? We humbly, but in all sincerity, place upon the 8050 Pennsylvania physicians we represented at Chicago on Feb. 15 and 16 the pressing and immediate responsibility of prompt action at home, at Harrisburg, and at Washington, D. C.

Please read and reread word by word the attached report.

Respectfully submitted,

HOWARD C. FRONTZ, Huntingdon,
HERBERT B. GIBBY, Wilkes-Barre,
J. NEWTON HUNSEBERGER, Norristown,
J. ALLEN JACKSON, Danville,
FRANK P. LYTLE, Birdsboro,
SAMUEL P. MENGEL, Wilkes-Barre,
ARTHUR C. MORGAN, Philadelphia,
CHARLES G. STRICKLAND, Erie,
WILLIAM H. MAYER, Pittsburgh,

Chairman,

WALTER F. DONALDSON, Pittsburgh,

Secretary.

Chairman F. F. Borzell of the State Society Committee on Medical Economics, who was present as an observer at Chicago on authorization of the Board of Trustees of our State Society, concurs.

REPORT OF THE REFERENCE COMMITTEE SPECIAL SESSION HOUSE OF DELEGATES OF THE AMERICAN MEDICAL ASSOCIATION

Chicago, Feb. 15 and 16, 1935

Your reference committee, believing that regimentation of the medical profession and lay control of medical practice will be fatal to medical progress and inevitably lower the quality of medical service now available to the American people, condemns unreservedly all

propaganda, legislation, or political manipulation leading to these ends.

Your reference committee has given careful consideration to the record by the Board of Trustees of the previous actions of this House of Delegates concerning sickness insurance and organized medical care and to the account of the measures taken by the Board of Trustees and the officials of the Association to present this point of view to the government and to the people.

The American Medical Association, embracing in its membership some 100,000 of the physicians of the United States, is by far the largest medical organization in this country. The House of Delegates would point out that the American Medical Association is the only medical organization open to all reputable physicians and established on truly democratic principles, and that this House of Delegates, as constituted, is the only body truly representative of the medical profession.

The House of Delegates commends the Board of Trustees and the officers of the Association for their efforts in presenting correctly, maintaining, and promoting the policies and principles heretofore established by this body.

The primary considerations of the physicians constituting the American Medical Association are the welfare of the people, the preservation of their health and their care in sickness, the advancement of medical science, the improvement of medical care, and the provision of adequate medical service to all the people. These physicians are the only body in the United States qualified by experience and training to guide and suitably control plans for the provision of medical care. The fact that the quality of medical service to the people of the United States to-day is better than that of any other country in the world is evidence of the extent to which the American medical profession has fulfilled its obligations.

The House of Delegates of the American Medical Association reaffirms its opposition to all forms of compulsory sickness insurance whether administered by the federal government, the governments of the individual states, or by the individual industry, community, or similar body. It reaffirms, also, its encouragement to local medical organizations to establish plans for the provision of adequate medical service for all of the people, adjusted to present economic conditions, by voluntary budgeting to meet the costs of illness.

The medical profession has given of its utmost to the American people, not only in this but in every previous emergency. It has never required compulsion but has always volunteered its services in anticipation of their need.

The Committee on Economic Security, appointed by the President of the United States, presented in a preliminary report to Congress, on Jan. 17, 11 principles which that committee considered fundamental to a proposed plan of compulsory health insurance. The House of Delegates is glad to recognize that some of the fundamental considerations for adequate, reliable, and safe medical service established by the medical profession through years of experience in medical practice are found by the committee to be essential to its own plans.

However, so many inconsistencies and incompatibilities are apparent in the report of the President's Committee on Economic Security thus far presented that many more facts and details are necessary for a proper consideration.

The House of Delegates recognizes the necessity under conditions of emergency for federal aid in meeting basic needs of the indigent; it deprecates, however,

any provision whereby federal subsidies for medical services are administered and controlled by a lay bureau. While the desirability of adequate medical service for crippled children and for the preservation of child and maternal health is beyond question, the House of Delegates deplores and protests those sections of the Wagner Bill* (United States Senate) which place in the Children's Bureau of the Department of Labor the responsibility for the administration of funds for these purposes.

The House of Delegates condemns as pernicious that section of the Wagner Bill which creates a social insurance board without specification of the character of its personnel to administer functions essentially medical in character and demanding technical knowledge not available to those without medical training.

The so-called Epstein Bill, proposed by the American Association for Social Security, now being promoted with propaganda in the individual states, is a vicious, deceptive, dangerous, and demoralizing measure. An analysis of this proposed law has been published by the American Medical Association. It introduces such hazardous principles as multiple taxation, inordinate costs, extravagant administration, and an inevitable trend toward social and financial bankruptcy.

The committee has studied this matter from a broad standpoint, considering many plans submitted by the Bureau of Medical Economics as well as those conveyed in resolutions from the floor of the House of Delegates. It reiterates the fact that there is no model plan which is a cure-all for the social ills any more than there is a panacea for the physical ills that affect mankind. There are now more than 150 plans for medical service undergoing study and trial in various communities in the United States. Your Bureau of Medical Economics has studied these plans and is now ready and willing to advise medical societies in the creation and operation of such plans. The plans developed by the Bureau of Medical Economics will serve the people of the community in the prevention of disease and the maintenance of health, and with curative care in illness. They must at the same time meet apparent economic factors and protect the public welfare by safeguarding to the medical profession the functions of control of medical standards and the continued advancement of medical educational requirements. They must not destroy that initiative which is vital to the highest type of medical service.

In the establishment of all such plans, county medical societies must be guided by the 10 fundamental principles adopted by this House of Delegates at the annual session in June, 1934. The House of Delegates would again emphasize particularly the necessity for separate provision for hospital facilities and the physician's services. Payment for medical service, whether by prepayment plans, installment purchase, or so-called voluntary hospital insurance plans, must hold, as absolutely distinct, remuneration for hospital care on the one hand and the individual, personal, scientific ministrations of the physician on the other.

Your Reference Committee suggests that the Board of Trustees request the Bureau of Medical Economics to study further the plans now existing and such as may develop, with special reference to the way in which they meet the needs of their communities, to the costs of operation, to the quality of service rendered, the effects of such service on the medical profession, the applicability to rural, village, urban, and industrial population, and to develop for presentation at the meet-

ing of the American Medical Association in June model skeleton plans adapted to the needs of populations of various types.

(Signed) HARRY H. WILSON, *Chairman*, California,

WARREN F. DRAPER, Virginia,

E. F. CODY, Massachusetts,

E. H. CAREY, Texas,

N. B. VAN ETEN, New York,

F. S. CROCKETT, Indiana,

W. F. BRAASCH, Minnesota.

CONTRIBUTIONS TO BENEVOLENCE FUND

The Committee on Medical Benevolence gratefully acknowledges the following contributions to the Medical Benevolence Fund:

Woman's Auxiliary to Lycoming County Medical Society	\$150.00
Woman's Auxiliary to Westmoreland County Medical Society	50.00

Total Contributions since 1934 report .. \$790.00

CHANGES IN MEMBERSHIP OF COUNTY SOCIETIES

The following changes have been reported to Feb. 16:

ADAMS: *New Member*—Donald D. Stoner, York Springs.

ALLEGHENY: *New Members*—A. Ralph Marmins, 640 Hillsboro Ave.; Wm. H. Kirk, Fulton Bldg.; David W. Morgan, Peoples East End Bldg.; George S. Zugsmith, 3401 Fifth Ave.; Albin Fabiani, 7041 Campania St.; W. Roderick Brown, 2446 Wylie Ave., Pittsburgh; James O. Donaldson, Mayview; Frederick A. Heupler, 854 Braddock Ave., Braddock; N. Keith Hammond, 134 Noble Ave., Crafton; Elizabeth C. Hoover, Mayview; Donald H. Walker, 810 Fourth St., West Elizabeth. *Reinstated Member*—David M. Davis, Broughton. *Death*—David W. Vaux, Pittsburgh (Univ. Pgh. '05), Jan. 29, age 62.

BERKS: *New Members*—Earl S. Loder, 754 N. Tenth St., Ralph H. Feick, 807 N. Tenth St., Reading.

BLAIR: *New Members*—Daniel Bohn, 1208 Seventh Ave., Daniel J. Menza, 1125 Eighth Ave., Altoona.

BUCKS: *Reinstated Member*—Gomer T. Williams, Southampton.

CHESTER: *Transfer*—George F. Phelps, Parkesburg, from Philadelphia County Society.

CLEARFIELD: *New Member*—Joseph L. Chick, Deposit Natl. Bank Bldg., Dubois.

CUMBERLAND: *New Members*—Joseph E. Green II, Charles M. Shaffer, Carlisle.

DAUPHIN: *New Members*—Christian J. Kleinguenther, Elizabethville; Horace H. Long, Hershey; Hamil R. Pezzuti, 604 N. Third St., August J. Podboy, 1254 Derry St., Harrisburg; Henry R. Shallenberger, Hanover St., Union Deposit. *Transfer*—Richard F. Richie, Harrisburg State Hospital, Harrisburg, from Allegheny County Society. *Death*—Claude W. Batdorf, Harrisburg (Univ. Pa. '11), Jan. 21, age 48.

DELAWARE: *New Members*—Arthur G. Baker, 107 E. Ridley Ave., Ridley Park; Laura E. McClure, 22 W. Greenwood St., John J. McLaughlin, 99 S. Lansdowne Ave., Lansdowne. *Transfer*—William W. Bolton, Lansdowne, from Philadelphia County Society.

ERIE: *New Members*—Frank C. Bowers, 137 W. Eighth St., Roger W. Eisman, 455 W. Tenth St., Raymond J. Rickloff, 211 E. Eighth St., James T. Gillespie, 3936 W. Ridge Road, Paul S. Komisar, 610 E. Tenth St., Erie.

* An analysis of the Wagner Bill appears on page 422.

FRANKLIN: *Death*—Charles F. Palmer, Chambersburg (Univ. Pa. '78), recently, age 88.

INDIANA: *Death*—Todd R. Boden, McIntyre (Jeff. Med. Coll. '10), Dec. 24, age 55.

JEFFERSON: *New Member*—George W. Means, Brookville. *Reinstated Member*—Francis D. Pringle, Punxsutawney.

LACKAWANNA: *New Member*—Wm. M. Alexander, State St., Nicholson. *Death*—G. Edgar Dean, Scranton (Univ. Pa. '77), Jan. 12, age 82.

LANCASTER: *New Members*—Stanley H. Hackman, 19 E. Main St., Strasburg; Martin K. Hessen, 147 E. Chestnut St., Chas. B. Peterson, Jr., 133 S. Queen St., Henry Walter, Jr., 37 E. Orange St., Lancaster; Arnold H. Zwally, 249 W. Main St., Ephrata. *Reinstated Member*—Henry M. Sultzbach, 231 E. King St., Lancaster. *Removal*—Delazon S. Bostwick from Lancaster to 106 Linwood Ave., Ardmore.

LEBANON: *New Members*—Bernerd Caplan, R. M. Wolff, Lebanon. *Transfer*—Herbert C. McClelland, Lebanon, from Allegheny County Society.

LEHIGH: *New Members*—Elizabeth S. Bauder, 205 N. Seventh St., Ethel F. Bachman, Allentown State Hospital, Anna M. Ziegler, 936 Hamilton St., Allentown; Harold S. Payer, 1001 Broadway, Bethlehem.

LUZERNE: *New Members*—Joseph A. Alexis, 35 W. Diamond Ave., Hazleton; Cornelius F. Coll, Jr., 9 E. Broad St., W. Hazleton; Joseph F. Dreier, 163 E. Broad St., Nanticoke; Patrick J. Gillespie, 632 Alter St., Hazleton; Edward H. Major, 186 S. Market St., Nanticoke; Alfred Wascolonis, 135 W. Main St., Plymouth.

MIFFLIN: *New Members*—Milton H. Cohen, George M. Irwin, Lewistown.

MONROE: *New Members*—David H. Keller, Stroudsburg; Philip F. Ehrig, E. Stroudsburg. *Reinstated Members*—William E. Andrew, Stroudsburg; Harry E. Banghart, Mt. Pocono.

MONTOUR: *New Members*—Walter W. Hammond, Jr., N. E. Penitentiary, Michael J. Peskov, 202½ Market St., Lewisburg (Union Co.).

MONTGOMERY: *New Members*—Jessie E. P. Burns, Royersford; E. Raymond Ambler, Jr., Jenkintown.

PHILADELPHIA: *New Members*—Zadok S. Chance, 2363 E. Clearfield St.; Domenico Cucinotta, 2326 W. Allegheny Ave.; Sherman A. Eger, 1830 Spruce St.; John G. Hand, 1724 Pine St.; S. Leon Israel, 22nd & Walnut Sts.; Chas. H. LaClair, Jr., 135 S. 18th St.; Norman L. Lee, 2027 W. Master St.; Aims C. McGuinness, 2020 Locust St.; Nathan Pastor, 549 E. Cheltenham Ave.; Dickinson S. Pepper, 1112 Prospect Ave., Oak Lane Sta.; Daniel B. Pierson, Jr., 1830 Delancey St.; Joseph A. Porter, 3801 Walnut St.; Jacob Reber, 1006 Ritner St.; Ella Roberts, 603 S. 48th St.; John C. Scott, 614 W. Allegheny Ave.; Anthony S. Tornay, Friends' Hospital; Joseph B. Vander Veer, 738 Pine St.; Hoke Wammock, Hasbrook & Hartel Sts., Fkfd.; Chas. H. Yeutter, 1701 Harrison St., Philadelphia. *Resignation*—Dorothy Child, Rudolph E. Muller, Wm. H. Zeigler, Harry Schleuderberg, Philadelphia; Wm. P. J. Ruddy, New York City; Anne Young, Washington, D. C.; Daniel M. Hoyt, Bay Pines, Fla. *Deaths*—Daniel Hunt Fuller, Upper Darby (Harvard Med. Sch. '91), Feb. 1, age 71; George M. Marshall, Philadelphia (Univ. Pa. '86), Jan. 8, age 76; John P. Mulrenan, Philadelphia (Univ. Pa. '97), Jan. 5, age 65; Bernard C. Zall, Philadelphia (Med. Chi. Coll., Phila., '09), Dec. 22, age 55; Minto Proctor Kemp, Philadelphia (Univ. Mich. '00), Dec. 29, age 60; Edmund Brown Piper, Philadelphia (Univ. Pa. '11), Jan. 14, age 54. *Removal*—George Bevier from Columbia, S. C., to Echo, Pa.

POTTER: *Reinstated Member*—Robert K. McConeghy, Coudersport. *Transfer*—A. Jackson Colcord, Port Allegany, to McKean County Society.

SCHUYLKILL: *New Members*—Belford C. Blaine, Pottsville; Joseph T. Dougherty, Girardville; Samuel

Frankel, 409 Garfield Sq., Pottsville; Joseph J. Mullen, Shenandoah.

SUSQUEHANNA: *New Member*—Laurance M. Thompson, Montrose.

VENANGO: *New Members*—Joseph T. Danzer, 212 State St., John V. Ledden, 220 Seneca St., Oil City. *Death*—Frank M. McClelland, Franklin (West. Res. '87), Feb. 4, age 76.

WASHINGTON: *New Members*—Emanuel Berger, Canonsburg; Emil Sposato, Burgettstown. *Reinstated Members*—John Cunningham, Eldersville; Ralph W. Koehler, Donora; John S. Oehrle, Monongahela; Robert A. Spahr, So. Brownsville. *Transfer*—Albert A. Hudacek, Canonsburg, from Allegheny County Society.

WAYNE-PIKE: *Reinstated Member*—Clark B. Holbrook, Waymart.

WESTMORELAND: *New Members*—John F. Blair, Derry; Harvey F. Enyeart, 541 Harrison Ave., Henry A. McMurray, Jr., Westmoreland Hospital, Greensburg. *Reinstated Members*—Martin E. Griffith, Monessen; W. Trall Doncaster, Jeannette; Albert Jablonsky, 510 Clay Ave., Jeannette; Kate Leatherman, Daniel I. Leatherman, 215 Penna. Ave., Greensburg; Alvin R. Megahan, Latrobe; Wesley S. Miller, Jeannette; Robert P. McClellan, Irwin; Warren T. O'Hara, Raymond N. Wilson, New Kensington. *Death*—John J. Singer, Greensburg (Univ. Pa. '02), Nov. 30, age 56; Harry W. Tittle, New Florence (Univ. Pgh. '95), recently, age 62.

YORK: *New Members*—Joseph J. Skelly, Seven Valleys; William R. Morgan, York Hospital, York.

PAYMENT OF PER-CAPITA ASSESSMENT

The following payment of per-capita assessment has been received since Jan. 10. Figures in first column indicate county society numbers; second column, State Society numbers:

Jan. 11	Adams	7	556	\$7.50
	Delaware	36-41	557-562	45.00
	Carbon	12-18	563-569	52.50
	Somerset	14-18	570-574	37.50
12	Cumberland	1-13	575-587	97.50
14	Westmoreland	1-31	588-618	232.50
	Westmoreland*	153-161	8029-8037	67.50
	Berks	3-62	619-678	450.00
	Berks*	168	8038	7.50
	Montgomery	91-105	679-693	112.50
	Fayette	2-27	694-719	195.00
	Venango	1-12	720-731	90.00
	Delaware	42-51	732-741	75.00
	Dauphin	48-86	742-780	292.50
	Lackawanna	13-40	781-808	210.00
	Philadelphia	12-14	809-811	22.50
	Philadelphia*	2198-2208	8039-8049	82.50
	Lycoming	3-42	812-851	300.00
15	Erie	1-29	852-880	217.50
	Montgomery	106-110	881-885	37.50
	Greene	10	886	7.50
16	Beaver	1-30	887-916	225.00
	York	74-78	917-921	37.50
	Susquehanna	1-13	922-934	97.50
17	Lycoming	52-58	935-941	52.50
	Mifflin	8-10	942-944	22.50
	Potter*	14	8050	7.50
	Potter	1-9	945-953	67.50
	Lancaster	2-68	954-1020	502.50
	Monroe	3	1021	7.50
	Franklin	17-30	1022-1035	105.00
	Lycoming	43-51, 59-60	1036-1046	82.50
18	Mercer	1-12	1047-1058	90.00
	Greene	11	1059	7.50
19	Montour	13-17	1060-1064	37.50
	Bedford	3	1065	7.50
21	Lackawanna	41-70	1066-1095	225.00

* 1934 dues.

Jan. 21	Venango	13-22	1096-1105	\$75.00
	Somerset	19-22	1106-1109	30.00
22	York	79-82	1110-1113	30.00
	Cumberland	14-19	1114-1119	45.00
	Bedford	4-5	1120-1121	15.00
	Lehigh	6-14	1122-1130	67.50
	Clearfield	4-20	1131-1147	127.50
	Susquehanna	14	1148	7.50
23	Clarion	14-20	1149-1155	52.50
	Armstrong	3-21	1156-1174	142.50
	Armstrong*	47	8051	7.50
	Westmoreland*	162	8052	7.50
	Westmoreland	32-34	1175-1177	22.50
	Somerset	23-24	1178-1179	15.00
26	Monroe	4-11	1180-1187	60.00
	Montgomery	111-119	1188-1196	67.50
28	Dauphin	87-117	1197-1227	232.50
	McKean	6-18	1228-1240	97.50
	Delaware	52-73	1241-1262	165.00
	Monroe	12-13	1263-1264	15.00
	Allegheny†	1297	7774	7.50
	Allegheny*	1311	8053	7.50
	Allegheny	1-6, 61-548	1265-1758	3705.00
29	Montour	18-23	1759-1764	45.00
	Mercer	13-14	1765-1766	15.00
30	Venango	23-25	1767-1769	22.50
	Washington	17-42	1770-1795	195.00
	Blair	1-2	1796-1797	15.00
	Mifflin	11-15	1798-1802	37.50
	Lebanon	1-16	1803-1818	120.00
	York	83-87	1819-1823	37.50
	Bedford	6-7	1824-1825	15.00
	Erie	30-34	1826-1830	37.50
	Warren	4-23	1831-1850	150.00
31	Chester	2-49	1851-1898	360.00
	Bradford	1-15	1899-1913	112.50
	Indiana	1-15	1914-1928	112.50
	McKean	19-26	1929-1936	60.00
	Mercer	15-16	1937-1938	15.00
	Huntingdon	7-12	1939-1944	45.00
Feb. 2	Columbia	17-25	1945-1953	67.50
	Monroe	14	1954	7.50
	Philadelphia	12-903	1955-2846	6690.00
4	Greene	12	2847	7.50
	Cumberland	20-23	2848-2851	30.00
5	York	88-92	2852-2856	37.50
6	Wayne-Pike	1-8	2857-2864	60.00
	Delaware	74-82	2865-2873	67.50
	Bedford	8	2874	7.50
	Northumberland	26-41	2875-2890	120.00
7	Lackawanna	71-102	2891-2922	240.00
	Erie	35-56	2923-2944	165.00
	Franklin	31-42	2945-2956	90.00
	Dauphin	118-130	2957-2969	97.50
8	Luzerne	4-70	2970-3036	502.50
	Greene	13	3037	7.50
	Somerset	25	3038	7.50
9	Fayette	28-49	3039-3060	165.00
	Adams	8-10	3061-3063	22.50
	Bradford	16-27	3064-3075	90.00
11	Berks	63-69,		
		71-93, 95-107	3076-3118	322.50
	Montour	24-29	3119-3124	45.00
	Lycoming	61-77	3125-3141	127.50
12	Erie	57-64	3142-3149	60.00
12	Montgomery	120-132	3150-3162	97.50
	Delaware	83-92	3163-3172	75.00
	Chester	50-52	3173-3175	22.50
	Bucks	21-28	3176-3183	60.00
14	Mifflin	16-19	3184-3187	30.00
	Somerset	26	3188	7.50
15	Greene	14-19	3189-3194	45.00
	Schuylkill	1-48	3195-3242	360.00
	Jefferson	1-14	3243-3256	105.00
	Northumberland	42-51	3257-3266	75.00
	York	93-96	3267-3270	30.00

Feb. 15	Lancaster	69-115	3271-3317	\$352.50
	Jefferson*	47	8054	7.50
	Washington	43-61	3318-3336	142.50
16	Lehigh	15-79	3337-3401	487.50
	Monroe	15	3402	7.50
	Lebanon	18-22	3403-3407	37.50

* 1934 dues.

COMMITTEE ON SCIENTIFIC WORK

STANLEY P. REIMANN, M.D., *Chairman*,
PHILADELPHIA, PA.

THE 1935 SESSION

The aim of the scientific program for the General Meetings of the Eighty-fifth Annual Session of the State Medical Society is to present subjects of general and timely interest. The status of a subject as being of "practical" import comes in for earnest consideration. Many additions to knowledge in such fundamental subjects as physiology, biochemistry, pathology, *etc.*, have been made during the past years, and some of these discoveries with inventions added to them have already given indications of usefulness, i. e., of being practical. Since improvements are desirable in many phases of medical practice, the judicious presentation of some of these discoveries and indications for their practical application are to be encouraged. Perhaps the best method of approach is that suggested about the choice of words—"use the oldest of the new and the newest of the old." An endeavor will be made to follow this plan.

At the same time, papers bearing weight from clinical experience will be presented. As before, an assigned discussor will be selected to amplify each subject and, of equal importance, to bring to bear upon it the point of view of another specialty. No symposia will be arranged, and thus there will be more opportunity for a wider choice of subjects.

The guest speakers will be chosen with a view to presentation from broad angles of subjects to which they have contributed. Exact announcements will be made later.

COMMITTEE ON PUBLICITY

MATHEW H. SHERMAN, M.D., *Chairman*,
HARRISBURG, PA.

ENDOCRINOLOGIC EXHIBIT EIGHTY-FIFTH ANNUAL CONVENTION

One of the many features of the 1935 meeting of the State Medical Society in Harrisburg, Sept. 30 to Oct. 3, will be the endocrinologic exhibit. The Committee on Scientific Exhibit is

* 1934 dues.

† 1933 dues.

working hard to make this one of the most instructive opportunities of the session.

The subcommittee in charge of the endocrine exhibit has tentatively arranged to have outstanding authorities contribute to the display.

Some of the demonstrators will be: E. Perry McCullagh of the Cleveland Clinic, who will present the study on male hormones; Charles Mazer of the Graduate School of the University of Pennsylvania, who will present gynecologic endocrinopathies; Charles F. Geschickter of Johns Hopkins Hospital, who will present adrenal endocrinology; and Robert Denison of Harrisburg, who will present pituitary endocrinology.

The display booths will be very spacious, and there is every assurance that those interested in endocrinology will have a genuine treat in store for them.

PENNSYLVANIA MEMBERS OF THE UNITED STATES SENATE, 1935

James J. Davis, *Rep.*, Pittsburgh.

Joseph F. Guffey, *Dem.*, Pittsburgh.

PENNSYLVANIA MEMBERS OF THE UNITED STATES HOUSE OF REPRESENTATIVES, 1935

Philadelphia County

I District—1st, 2d, 3d, 4th, 5th, 6th, 26th, 39th, and 48th wards.

Harry C. Ransley, *Rep.*, Philadelphia.

II District—7th, 8th, 9th, 10th, 24th, 27th, 30th, 36th, and 44th wards.

William H. Wilson, *Rep.*, Philadelphia.

III District—11th, 12th, 13th, 14th, 16th, 17th, 18th, 19th, 20th, 25th, 31st, 37th, and 45th wards.

Clare G. Fenerty, *Rep.*, Philadelphia.

IV District—15th, 28th, 29th, 32d, 38th, and 47th wards.

J. Burrwood Daly, *Dem.*, Philadelphia.

V District—23d, 33d, 35th, 41st, and 43d wards.

Frank J. G. Dorsey, *Dem.*, Philadelphia.

VI District—34th, 40th, and 46th wards.

Michael J. Stack, *Dem.*, Philadelphia.

VII District—21st, 22d, and 42d wards.

George P. Darrow, *Rep.*, Philadelphia.

VIII District—Delaware County.

James Wolfenden, *Rep.*, Upper Darby.

IX District—Bucks and Lehigh Counties.

Oliver W. Frey, *Dem.*, Allentown.

X District—Lancaster and Chester Counties.

J. Roland Kinzer, *Rep.*, Lancaster.

XI District—Lackawanna County.

Patrick J. Boland, *Dem.*, Scranton.

XII District—Luzerne County.

C. Murray Turpin, *Rep.*, Kingston.

XIII District—Schuylkill and Northumberland Counties.

James H. Gildea, *Dem.*, Coaldale.

XIV District—Berks County.

William E. Richardson, *Dem.*, Reading.

XV District—Bradford, Pike, Susquehanna, Wayne, Columbia, Montour, Sullivan, and Wyoming Counties.

C. Elmer Dietrich, *Dem.*, Tunkhannock.

XVI District—Clinton, Lycoming, Potter, Tioga, McKean, and Cameron Counties.

Robert F. Rich, *Rep.*, Woolrich.

XVII District—Montgomery County.

J. Wilmer Ditter, *Rep.*, Ambler.

XVIII District—Fulton, Huntingdon, Juniata, Mifflin, Perry, Snyder, Bedford, and Union Counties.

Benjamin K. Focht, *Rep.*, Lewisburg.

XIX District—Cumberland, Dauphin, and Lebanon Counties.

Isaac H. Doutrich, *Rep.*, Harrisburg.

XX District—Warren, Mercer, Venango, Forest, Clarion, and Elk Counties.

D. J. Driscoll, *Dem.*, St. Marys.

XXI District—Northampton, Carbon, and Monroe Counties.

Francis E. Walter, *Dem.*, Easton.

XXII District—Adams, York, and Franklin Counties.

Harry L. Haines, *Dem.*, Red Lion.

XXIII District—Clearfield, Center, and Blair Counties.

Don Gingery, *Dem.*, Clearfield.

XXIV District—Fayette and Somerset Counties.

J. Buell Snyder, *Dem.*, Perryopolis.

XXV District—Greene and Washington Counties.

Charles I. Faddis, *Dem.*, Waynesburg.

XXVI District—Beaver, Butler, and Lawrence Counties.

Charles R. Eckert, *Dem.*, Beaver.

XXVII District—Armstrong, Jefferson, Indiana, and Cambria Counties.

Joseph Gray, *Dem.*, Barnesboro.

XXVIII District—Westmoreland County.

William M. Berlin, *Dem.*, Greensburg.

XXIX District—Crawford and Erie Counties.

Charles N. Crosby, *Dem.*, Meadville.

Allegheny County

XXX District—21st, 22d, 23d, 24th, 25th, 26th, and 27th wards of Pittsburgh, and all boroughs and townships lying north of the Ohio and Allegheny rivers, not included in the 31st district.

J. Tawing Brooks, *Dem.*, Sewickley.

XXXI District—all boroughs and townships lying between the Allegheny and Monongahela rivers and the boroughs of Springdale, Cheswick, Brackenridge, Tarentum, the townships of Harrison, Fawn, East Deer, Frazer, and Springdale, and the city of McKeesport.

James L. Quinn, *Dem.*, Braddock.

XXXII District—1st, 2d, 3d, 4th, 5th, 6th, 9th, 10th, 11th, and 15th wards of Pittsburgh.

Theodore L. Moritz, *Dem.*, Pittsburgh.

XXXIII District—7th, 8th, 12th, 13th, 14th, 16th, 17th, 18th, 19th, 20th, and 28th wards of Pittsburgh.

Henry Ellenbogen, *Dem.*, Pittsburgh.

XXXIV District—29th, 30th, 31st, and 32d wards of Pittsburgh, the cities of Clairton and Duquesne, and all the boroughs and townships lying south of the Ohio and Monongahela rivers.

Matthew A. Dunn, *Dem.*, Pittsburgh.

MEMBERS OF THE SENATE OF PENNSYLVANIA, 1935

Philadelphia County

I District—1st, 26th, 36th, 39th, and 48th wards.

Joseph C. Trainer, *Rep.*, 1513 South Broad Street. (Office 820 S. Second Street), Philadelphia.

- II District—2d, 3d, 4th, 7th, 8th, 9th, and 30th wards.
Samuel W. Salus, Rep., 614 South 11th Street, (Office Morris Building), Philadelphia.
- III District—5th, 6th, 10th, 11th, 12th, 13th, 14th, 16th, and 18th wards.
†William C. Hunsicker, Rep., 1625 Race Street, Philadelphia.
- IV District—24th, 27th, 34th, 40th, 44th, and 46th wards.
John J. McCreesh, Dem., 4200 Walnut Street, Philadelphia.
- V District—17th, 19th, 20th, 31st, and 37th wards.
Max Aron, Rep., 937 North Eighth Street, (Office 804 Franklin Trust Building), Philadelphia.
- VI District—21st, 22d, 38th, and 42d wards.
**George Woodward, Rep.*, S. W. Corner Mermaid Lane & McCallum Street, Chestnut Hill, (Office 1800 Girard Trust Bldg.), Philadelphia.
- VII District—15th, 28th, 29th, 32d, and 47th wards.
Harry Shapiro, Rep., 1535 North Thirty-third Street, (Office Eighteenth floor, Market Street National Bank Building, Market and Juniper Streets), Philadelphia.
- VIII District—23d, 25th, 33d, 35th, 41st, 43d, and 45th wards.
Walter S. Pytko, Dem., 4476 E. Thompson Street, Philadelphia.
- IX District—Delaware County.
John J. McClure, Rep., 20th & Providence Avenue, (Office 802 Crozer Building), Chester.
- X District—Bucks County.
Clarence J. Buckman, Rep., Langhorne, (Office 712 North American Building), Philadelphia.
- XI District—Berks County.
James E. Norton, Rep., 221 Douglas Street, (Office 540 Court Street), Reading.
- XII District—Montgomery County.
James S. Boyd, Rep., 819 W. Main Street, Norristown.
- XIII District—Lancaster County (part of).
John G. Homsher, Rep., Strasburg.
- XIV District—Carbon, Monroe, Pike, and Wayne Counties.
Harvey Huffman, Dem., 814 Main Street, Stroudsburg.
- XV District—Dauphin County.
George L. Reed, Rep., 3006 North Second Street, (Office 603 State Theatre Building), Harrisburg.
- XVI District—Lehigh County.
George A. Rupp, Dem., 727 North 26th Street, Allentown.
- XVII District—Lebanon County and Lancaster County (part of).
Henry J. Pierson, Rep., 123 South Broad Street, Lititz, Lancaster County.
- XVIII District—Northampton County.
Warren R. Roberts, Dem., 1850 Easton Avenue, (Office Bethlehem Trust Company Building), Bethlehem.
- XIX District—Chester County.
William H. Clark, Rep., 344 West Union Street, West Chester.
- XX District—Luzerne County (part of).
Andrew J. Sordoni, Rep., 535 Wyoming Avenue, Kingston.

- XXI District—Luzerne County (part of).
Laning Harvey, Rep., 76 River Drive, (Office 528 Miners Bank Building), Wilkes-Barre.
- XXII District—Lackawanna County.
John W. Howell, Rep., 1156 Academy Street, (Office 312-13 Mears Building), Scranton.
- XXIII District—Bradford, Susquehanna, and Wyoming Counties.
Frederick T. Gelder, Rep., 636 Main Street, Forest City, Susquehanna County.
- XXIV District—Columbia, Montour, Lycoming, and Sullivan Counties.
Charles W. Sones, Dem., 327 Elmira Street, Williamsport, Lycoming County.
- XXV District—McKean, Potter, and Tioga Counties.
G. Mason Owelett, Rep., 12½ West Avenue, Wellsboro, Tioga County.
- XXVI District—Cameron, Clarion, Clinton, Elk, and Forest Counties.
**J. Dana Kahle, Dem.*, Knox, Clarion County.
- XXVII District—Northumberland, Snyder, and Union Counties.
Charles E. Miller, Dem., 38 East Second Street, Mount Carmel, Northumberland County.
- XXVIII District—York County.
Henry E. Lanius, Dem., R. D. 4, Spring Grove.
- XXIX District—Schuylkill County.
Charles W. Staudenmeier, Rep., 1134 Spruce Street, (Office 925 Center St.), Ashland.
- XXX District—Blair and Huntingdon Counties.
Charles R. Mallery, Rep., 1014 Lexington Avenue, Altoona, Blair County.
- XXXI District—Cumberland, Juniata, Mifflin, and Perry Counties.
Leon C. Prince, Rep., 24 Mooreland Avenue, Carlisle, Cumberland County.
- XXXII District—Fayette County.
Anthony Cavalcante, Dem., 88 Dawson Avenue, Uniontown.
- XXXIII District—Adams and Franklin Counties.
John S. Rice, Dem., Biglerville, Adams County.
- XXXIV District—Center and Clearfield Counties.
Edward Jackson Thompson, Dem., Philipsburg, Center County.
- XXXV District—Cambria County.
Herman E. Baumer, Dem., R. D. 5, Johnstown.
- XXXVI District—Bedford, Fulton, and Somerset Counties.
Charles H. Ealy, Rep., 517 W. Main St., Somerset, Somerset County.
- XXXVII District—Indiana and Jefferson Counties.
Edward B. Bennett, Rep., 105 North Seventh Street, Indiana, Indiana County.
- XXXVIII District—Allegheny County (part of).
Edward R. Frey, Dem., 354 Bailey Avenue, Pittsburgh.
- XXXIX District—Westmoreland County.
Benjamin H. Thompson, Rep., 430 Charles Avenue, (Office Logan Bank Building), New Kensington.
- XL District—Allegheny County (part of).
William B. Rodgers, Dem., 361 Ohio River Boulevard, Pittsburgh.
- XLI District—Armstrong and Butler Counties.
Peter Graff, III, Rep., Worthington, Armstrong County.
- XLII District—Allegheny County (part of).
Bernard B. McGinnis, Dem., 12 East North Avenue, Pittsburgh.

† Member of the Homeopathic Medical Society of State of Pennsylvania.

* Member of The Medical Society of State of Pennsylvania.

* Member of The Medical Society of State of Pennsylvania.

XLIII District—Allegheny County (part of).

James J. Coyne, Rep., 236 McKee Place, (Office 3717 Forbes Street), Pittsburgh.

XLIV District—Allegheny County (part of).

George Rankin, Jr., Dem., 706 Coal Street, Wilkinsburg.

XLV District—Allegheny County (part of).

Frank J. Harris, Rep., 501 Clearview Avenue, Crafton, Crafton Branch, (Office Suite 711 Clark Building), Pittsburgh.

XLVI District—Greene and Washington Counties.

J. Albert Reed, Dem., Wood Street, California, Washington County.

XLVII District—Beaver and Lawrence Counties.

Alonzo S. Batchelor, Rep., 930 Atlantic Avenue, Monaca, Beaver County.

XLVIII District—Venango and Warren Counties.

**Leroy E. Chapman, Rep.*, 1911 Pennsylvania Avenue East, Warren, Warren County.

XLIX District—Erie County.

Joseph R. Ziesenheim, Rep., R. D., North Girard.

L District—Crawford and Mercer Counties.

Glen R. Læw, Dem., 41 East Main Street, Sharpsville, Mercer County.

MEMBERS OF THE HOUSE OF REPRESENTATIVES, 1935

Philadelphia County

I District—1st and 39th wards.

L. Arthur Greenstein, Rep., 1601 S. 6th Street, (Office 1142 Real Estate Trust Building), Philadelphia.

Stephen C. Denning, Rep., 2637 South 11th Street, Philadelphia.

II District—2d ward.

Charles C. A. Baldi, Jr., Rep., 1341 Ellsworth Street, Philadelphia.

III District—3d, 4th, and 5th wards.

Morris J. Root, Rep., 763 South 5th Street, Philadelphia.

Arnold M. Blumberg, Rep., 719 North American Building, Philadelphia.

IV District—6th, 8th, and 9th wards.

George J. Mallen, Rep., 2005 Walnut Street, Philadelphia.

V District—26th, 36th, and 48th wards.

Anna M. Brancato, Dem., 1417 Porter Street, Philadelphia.

Charles Melchiorre, Dem., 1135 South 23d Street, Philadelphia.

Francis J. Falkenstein, Dem., 2234 Winton Street, Philadelphia.

VI District—7th ward.

Samuel B. Hart, Rep., 416 S. Vanevelt Street, Philadelphia.

VII District—30th ward.

Walker K. Jackson, Rep., 1743 Christian Street, Philadelphia.

VIII District—10th, 13th, and 14th wards.

Morton Witkin, Rep., 911 Finance Building, Philadelphia.

William Patrick Condon, Rep., 1224 Buttonwood Street, Philadelphia.

IX District—11th and 12th wards.

Herman J. Tahl, Rep., 508 Bulletin Building, Philadelphia.

X District—15th ward.

Robert H. Moore, Rep., 1806 Callowhill Street, Philadelphia.

Alexander C. Green, Rep., 1537 Ogden Street, Philadelphia.

XI District—17th and 18th wards.

Leo V. Tumelty, Dem., 1640 E. Berks Street, Philadelphia.

XII District—19th ward.

Albert L. Pfaff, Dem., 2145 North 2d Street, Philadelphia.

Benjamin L. Long, Dem., 2126 North Randolph Street, Philadelphia.

XIII District—16th and 20th wards.

Clinton A. Sowers, Rep., 909 Stephen Girard Building, Philadelphia.

Louis Schwartz, Rep., 924 West Girard Avenue, Philadelphia.

XIV District—21st ward.

Robert S. Hamilton, Rep., 3838 Terrace Street, Philadelphia.

XV District—22d ward.

John J. McDevitt, 3rd, Rep., 46 Woodale Road, Philadelphia.

XVI District—42d ward.

Frank J. Fitch, Dem., 266 West Duncannon Avenue, Philadelphia.

XVII District—23d, 35th, and 41st wards.

Lewis F. Castor, Rep., 1005 Allengrove Street, Philadelphia.

XVIII District—24th, 34th, and 44th wards.

John J. Finnerty, Dem., 5230 Westminster Avenue, Philadelphia.

Marshall L. Shepard, Dem., 5508 Girard Avenue, Philadelphia.

Joseph Ominsky, Dem., 3912 West Girard Avenue, Philadelphia.

XIX District—25th and 45th wards.

Andrew A. Cannon, Dem., 2835 Gaul Street, Philadelphia.

Joseph David Burke, Dem., 2547 East Clearfield Avenue, Philadelphia.

XX District—28th and 37th wards.

Edward Flanagan, Dem., 3523 North Broad Street, Philadelphia.

Eugene J. Hagerty, Dem., 1616 West Cumberland Street, Philadelphia.

XXI District—29th and 47th wards.

Patrick Conner, Rep., 2807 Oxford Street, Philadelphia.

Hobson R. Reynolds, Rep., 2044 Ridge Avenue, Philadelphia.

XXII District—27th, 40th, and 46th wards.

Harry L. Duffort, Rep., 6219 Elmwood Avenue, Philadelphia.

John J. Carr, Rep., 6018 Spruce Street, Philadelphia.

XXIII District—32d ward.

A. Alfred Wasserman, Rep., 2129 North 33d Street, (Office 713 Market Street National Bank Building), Philadelphia.

XXIV District—38th ward.

Elmer Kilroy, Dem., 2855 North 20th Street, Philadelphia.

XXV District—33d ward.

Joseph A. Scanlon, Dem., 3217 Rorer Street, Philadelphia.

XXVI District—43d ward.

Joseph A. Ferko, Rep., 500 West Glenwood Avenue, Philadelphia.

XXVII District—31st ward.

Robert Boyd, Rep., 2307 East Sergeant Street, Philadelphia.

* Member of The Medical Society of State of Pennsylvania.

Adams County

**H. M. Hartman, Dem.*, 26 Chambersburg Street, Gettysburg.

Allegheny County**I District**

Hamer S. Brown, Dem., 742 Anaheim Street, Pittsburgh.

Al Tronzo, Dem., 1704 Forbes Street, Pittsburgh.

II District

**George J. Sarraf, Dem.*, 3701 Penn Avenue, Pittsburgh.

Thomas P. Maaney, Dem., 3468½ Ligonier Street, Pittsburgh.

III District

Herman P. Eberharter, Dem., 3373 Parkview Avenue, Pittsburgh.

IV District

James W. Patterson, Dem., 5616 Elmer Street, Pittsburgh.

V District

Frank J. Zappala, Dem., 5401 Hobart Street, Pittsburgh.

VI District

Frank J. Kobelak, Dem., 809 E. Carson Street, Pittsburgh.

John J. Baker, Dem., 133 South 19th Street, S. S., Pittsburgh.

Elmer J. Holland, Dem., 2721 Shelly Street, Pittsburgh.

VII District

James P. Raaney, Rep., 915 Western Avenue, N. S., Pittsburgh.

John L. Powers, Dem., 222 Henderson Street, Pittsburgh.

VIII District

John J. O'Keefe, Dem., 3505 Rodney Street, Pittsburgh.

William A. Shaw, Dem., 1100 Sheffield Street, Pittsburgh.

IX District

John E. McElray, Dem., 909 Sixth Avenue, McKeesport.

X District

J. P. Maran, Dem., 116 Eighth Street, Turtle Creek.

Samuel A. Weiss, Dem., 401 Monongahela Avenue, Glassport.

Al K. Robinson, Dem., 231 Hay Street, Wilkinsburg.

Joseph B. Baine, Dem., 31 Hamilton Avenue, Rankin.

XI District

**Frank F. Sumney, Dem.*, 41 Maple Avenue, Dravosburg.

L. Kenneth Harkins, Dem., 124 West Virginia Avenue, Munhall.

XII District

Charles Harmuth, Dem., 238 Station Street, Bridgeville.

Anthony J. Gerard, Dem., 513 Transverse Street, Mt. Oliver.

Cyril F. Ruffenmach, Dem., 64 W. Francis Avenue, Brentwood.

Frank A. Coolahan, Dem., 96 Roycroft Avenue, Mt. Lebanon.

XIII District

Joseph F. Piole, Dem., 853 Reserve Street, Millvale, Pittsburgh.

Howard R. Pearson, Dem., 455 Freeport Road, Blawnox.

Armstrong County

Herbert G. Gates, Rep., 513 N. McKean Street, Kittanning.

Frank J. Atkins, Rep., 248 N. Water Street, Kittanning.

Beaver County**I District**

Eugene A. Caputo, Dem., 920 Maplewood Avenue, Ambridge.

II District

Reuben A. Nagel, Dem., R. D. 2, New Galilee.

Peter P. Reising, Dem., 1017 Sixth Street, Beaver.

Bedford County

Charles W. Allen, Dem., E. Pitt Street, Bedford.

Berks County**I District**

Darlington Haapes, Sac., 430 Lancaster Avenue, Reading.

Lilith M. Wilson, Sac., 326 Kenhorst Avenue, Reading.

II District

Mahlon F. LaRue, Dem., 101 W. Lancaster Avenue, Shillington.

III District

Frank W. Ruth, Dem., Bernville.

IV District

Wilson G. Sarig, Dem., Temple.

Blair County**I District**

William M. Ankerman, Dem., 911 Howard Avenue, Altoona.

II District

Joseph W. Parks, Rep., R. D. 1, Altoona.

Harry E. Diehl, Dem., Claysburg.

Bradford County

Wilson D. Gillette, Rep., 102 York Avenue, Towanda.

Bucks County

Wilson L. Yeakel, Rep., 11 S. Seventh Street, Perkasie.

Thomas B. Staekham, Rep., 651 N. Pennsylvania Avenue, Morrisville.

Butler County

J. Brady Murrin, Dem., 102 Summit Street, Butler.

William J. Klingler, Dem., 204 E. Cunningham Street, Butler.

Cambria County**I District**

Hiram G. Andrews, Ind., 115 Main Street, Johnstown.

**Samuel P. Bayer, Rep.*, 163 Fairfield Avenue, Johnstown.

II District

Michael C. Chervenak, Jr., Dem., Portage.

John J. Haluska, Dem., 413 Beach Avenue, Patton.

Denis L. Westrick, Dem., R. D. 1, Hastings.

Cameron County

John Schwab, Dem., 330 E. Allegheny Avenue, Emporium.

Carbon County

Frank Bernhard, Rep., 821 Centre Street, E. Mauch Chunk.

Center County

John W. Decker, Dem., Spring Mills.

* Member of The Medical Society of State of Pennsylvania.

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Chester County**I District.**

Charles J. Stott, Rep., 31 S. Eleventh Street, Coatesville.

II District.

Henry M. Hoffner, Jr., Rep., R. D., West Chester.
Haines D. White, Rep., 702 South Main Street, Phoenixville.

Clarion County

Allen H. Panton, Dem., St. Petersburg Street, Foxburg.

Clearfield County**I District.**

Blake B. Shugarts, Dem., 6 Cemetery Road, Clearfield.

II District.

Frank P. Hamilton, Dem., Luthersburg.

Clinton County

Joseph A. Simon, Dem., 103 W. Church Street, Lock Haven.

Columbia County

Oliver S. McHenry, Dem., 237 East Third Street, Berwick.

Crawford County

Floyd G. Altenburg, Rep., 881 Porter Street, Meadville.

Cumberland County

John A. Smith, Dem., Dickinson.

Dauphin County**I District.**

Thomas R. Wickersham, Rep., 2841 N. Front Street, Harrisburg.

Roy W. Shreiner, Rep., 2100 Chestnut Street, Harrisburg.

II District.

William E. Habbyslaw, Rep., 410 W. Main Street, Hummelstown.

Robert E. Woodside, Jr., Rep., 276 North Street, Millersburg.

Delaware County**I District.**

Edward Nothnagle, Rep., 114 West 24th Street, Chester.

II District.

Thomas Weidemann, Rep., 209 Kathmere Road, Brookline, Upper Darby.

Ellwood J. Turner, Rep., 602 Crozer Building, Chester.

Thomas Jay Sproul, Rep., Wyckenham Street, Bowling Green, Media.

Elk County

John M. Flynn, Rep., 500 Hyde Street, Ridgway.

Erie County**I District.**

William D. Kinney, Dem., 1106 W. 8th Street, Erie.

II District.

Thomas W. Barber, Rep., 412 Newnan Street, Erie.

III District.

John E. Van Allsburg, Rep., R. D. 4, North East.

IV District.

Ralph S. McCreary, Rep., R. D. 2, Erie.

Fayette County**I District.**

Harry J. Brozenfield, Dem., 20 Church Street, Fairchance.

II District.

Matthew J. Welsh, Dem., 421 S. Arch Street, Conneville.

J. Harold Arnold, Dem., Vanderbilt.

Harry Cochran, Dem., McGill Avenue, Dawson.

Forest County

Alexander R. Wheeler, Rep., Main Street, Endeavor.

Franklin County

P. C. Moomaw, Dem., Fairview Avenue, Waynesboro.

Fulton County

Marshall Lynch, Dem., Crystal Springs.

Greene County

Roy E. Furman, Dem., 62 W. Franklin Street, Waynesburg.

Huntingdon County

Richard M. Simpson, Rep., Taylor Highlands, Huntingdon.

Indiana County

Joshua T. Stewart, Rep., 717 School Street, Indiana.
J. Clair Sloan, Rep., 548 Water Street, Indiana.

Jefferson County

Burt B. Brumbaugh, Dem., 780 Main Street, Brockway.

Juniata County

D. Murray Hetrick, Dem., 615 Washington Avenue, Mifflintown.

Lackawanna County**I District.**

Edward J. Coleman, Dem., 1417 Academy Street, Scranton.

II District.

Russell Philips, Rep., 1709 Wyoming Avenue, Scranton.

III District.

Robert J. Cordier, Rep., 1616 Vine Street, Scranton.

IV District.

Harry P. O'Neill, Dem., 708 Clay Avenue, Dunmore.

V District.

William J. Munley, Dem., 434 Salem Avenue, Archbald.

VI District.

**E. T. Davies, Rep.*, 852 Main Street, Old Forge.

Lancaster County**I District.**

George E. Downey, Dem., 125 E. Lemon Street, Lancaster.

II District.

Harry E. Trout, Rep., Manheim.

Norman Wood, Rep., Peach Bottom.

Edwin R. Spangler, Rep., 222 W. Main Street, Ephrata.

Lawrence County**I District.**

William J. Eroo, Jr., Dem., 332 Berger Place, New Castle.

II District.

James Kelso, Dem., R. D. 1, Enon Valley.

Lebanon County

Miles Horst, Rep., 6 E. Maple Street, Palmyra.

* Member of The Medical Society of State of Pennsylvania.

Lehigh County**I District.**

James J. McDermott, Dem., 811 Linden Street, Allentown.

George R. Holstrom, Dem., 502 N. 2d Street, Allentown.

II District.

Albert E. Rinn, Dem., R. D. 3, Bethlehem.

Luzerne County**I District.**

John Yourishin, Rep., 877 N. James Street, Hazleton.

II District.

Benjamin H. Rhys, Rep., 374 Chestnut Street, Peely.

III District.

John J. Hefferson, Rep., 16 Swallow Street, Pittston.

IV District.

John C. Hermansen, Rep., 13 E. Kirmar Avenue, Alden Station.

V District.

William P. Roan, Rep., 580 Washington Avenue, Larksville.

VI District.

Willard G. Shortz, Rep., 39 E. Vaughn Street, Kingston.

VII District.

J. Gordon Mason, Rep., 405 Coal Exchange Building, Wilkes-Barre.

Benjamin Jones, Rep., 497 Carey Avenue, Wilkes-Barre.

Lycoming County

Harry H. Brennan, Rep., 664 Campbell Street, Williamsport.

John H. Siegel, Dem., 266 Lincoln Avenue, Williamsport.

McKean County

E. Kent, Kane, Rep., Kusehequa.

Mercer County

William G. Smith, Dem., 427 E. Washington Boulevard, Grove City.

Lee Norman Dilley, Dem., 11 Bessemer Street, Greenville.

Mifflin County

Lowell H. Alexander, Dem., Belleville.

Monroe County

Leo A. Achterman, Dem., 216 North 9th Street, Stroudsburg.

Montgomery County**I District.**

Frederick C. Peters, Rep., 48 S. Wyoming Avenue, Ardmore.

II District.

E. Arnold Forrest, Rep., 139 W. 10th Avenue, Conshohocken.

III District.

William Ellis Zimmerman, Rep., 109 E. Main Street, Lansdale.

Clarence L. Ederer, Rep., 11 Surrey Road, Melrose Park.

John H. Longaker, Rep., 840 N. Charlotte Street, Pottstown.

Montour County

Lloyd W. Welliver, Dem., Exchange.

Northampton County**I District.**

William Sinwell, Dem., 440 Seneca Street, Bethlehem.

II District.

Henry K. Van Sickle, Dem., 2249 Fairview Avenue, Wilson Borough, Easton.

Henry A. Male, Dem., 11 Penna. Avenue, Pen Argyl.
Charles B. Coakley, Dem., 217 South 6th Street, Easton.

Northumberland County**I District.**

John J. Perry, Rep., 560 Queen Street, Northumberland.

II District.

John F. Stank, Dem., 517 Webster Street, Ranshaw.
Joseph P. Bradley, Dem., 111 E. 4th Street, Mt. Carmel.

Perry County

James L. Snyder, Rep., Front Street, Liverpool.

Pike County

Edward B. Labar, Dem., 410 Pennsylvania Avenue, Matamoras.

Potter County

John F. Stone, Dem., 506 N. Main Street, Coudersport.

Schuylkill County**I District.**

John J. Downey, Dem., 30 S. Bower Street, Shenandoah.

II District.

Edgar A. Schroepe, Dem., Hegins.

III District.

J. Noble Hirsch, Dem., 307 Gay Street, Tamaqua.

IV District.

Daniel C. Linderman, Rep., Cressona.
Walter L. Barnhardt, Rep., Llewellyn.

Snyder County

Harvey A. Surface, Rep., R. D. 1, Selinsgrove.

Somerset County

Jacob B. Schrock, Rep., 601 Main Street, Berlin.
Ellis C. Boese, Rep., 222 E. Union Street, Somerset.

Sullivan County

George E. Walker, Dem., Hills Grove.

Susquehanna County

† Albert F. Merrell, Rep., 4 Pine Street, Hallstead.

Tioga County

Frank E. Snyder, Rep., Liberty.

Union County

Francis T. Baker, Rep., 814 Market Street, Lewisburg.

Venango County

John H. McKinney, Rep., R. D. 4, Franklin.

Warren County

W. W. Muir, Rep., 305 Prospect Street, Warren.

† Member of the Homeopathic Medical Society of State of Pennsylvania.

Washington County**I District.**

John E. Brown, Dem., R. D. 3, McDonald.

**A. O. Hindman, Dem., Burgettstown.*

II District.

Cliff Patterson, Dem., 509 Marne Avenue, Monongahela.

Walter Carson, Dem., 421 Meadow Avenue, Charleroi.

Wayne County

Arthur J. Wall, Rep., 315 Sixteenth Street, Honesdale.

Westmoreland County**I District.**

Samuel P. Stevens, Rep., 111 Center Avenue, Mt. Pleasant.

Roy C. Haberman, Dem., R. D. 3, Latrobe.

II District.

John H. Dent, Dem., 429 Chestnut Street, Jeannette.

James E. Lovett, Dem., 521 Gilmore Avenue, Trafford.

III District.

C. Fred Mentzer, Dem., 466 Conner Avenue, Monessen.

Harry N. Boyd, Dem., 140 Seminary Avenue, Greensburg.

Wyoming County

Charles L. Terry, Rep., Nicholson.

York County**I District.**

Herbert B. Cohen, Dem., 710 Madison Avenue, York.

II District.

Clayton E. Moul, Dem., Spring Grove.

III District.

J. M. Flinchbaugh, Dem., 751 West Broadway, Red Lion.

* Member of The Medical Society of State of Pennsylvania.

County Society Reports**DELAWARE**

Feb. 14, 1935

The meeting was held at the Chester Hospital, President John Eynon in the chair.

The Medical Advisory and Public Welfare Committee commented upon the seemingly indiscriminate reduction in the bills approved by the committee without advanced notification or explanation. On the average it seemed that few bills are approved that amount to more than 6 or 7 dollars. The amount allowed for maternity cases for which orders were received too late for prenatal care seemed small. The committee considers that the approximate amount of \$12 allowed for prenatal care and only \$8 for delivery and postnatal care needs readjusting; and that the new method proposed for cod liver oil prescriptions involves a great deal of "red tape."

The society voted to contribute \$25 towards the George A. Knowles Memorial Fund.

A letter was read from the Secretary of Health, Dr. Edith MacBride-Dexter, on County Medical Society Cooperation with the Department of Health. It was approved that the Executive Committee hold open meetings to discuss the several points mentioned in Dr. Dexter's letter.

Robert G. Torrey, Philadelphia, professor of medicine

at the Woman's Medical College of Pennsylvania, read a paper on "Rheumatic Fever."

He said in part: The medical profession and the people are becoming more cognizant of the economic importance of this disease. He stated the economic importance has been widely recognized by the medical profession since about 1900. It is economically much more important than either tuberculosis or cancer because rheumatic fever affects the younger individuals in their productive years of life. Various governments, Great Britain, Netherlands, Sweden, etc., are now definitely interested in the economic importance of rheumatic fever.

With the passing of time rheumatic fever is coming to embrace a smaller and smaller group of conditions. Such disorders as gout, arthritis, rheumatoid arthritis, etc., which at one time were considered to be rheumatic fever, now are not a part of the picture. The importance of the heart and the arterial system in rheumatic fever is receiving greater attention.

Since the advent of bacteriology into the field of medicine various efforts have been set forth to find a specific organism for this disease. Mentzer was one of the first in this endeavor. Small and Small's vaccine represents a more recent effort. As to the geographic distribution of rheumatic fever it is unknown in the tropics. Necropsies from Singapore, India, show no evidence of the disease in the cardiovascular system. In the temperate zones it is quite prevalent and is more frequently found in those localities where scarlet fever is also found.

Within the past 30 years there has been a definite change of trend in the pathology of rheumatic fever. It seems to indicate definite change in the disease itself. Cases and pathologic studies were cited to substantiate this fact.

In discussing the pathogenesis of rheumatic fever, Dr. Torrey said: (1) The nonhemolytic type of streptococcus is the most common factor in the disease; (2) chronic infection seems to be the basis for sensitizing the individual and lowering the resistance toward rheumatic fever, chronic infection of the tonsils, sinuses, and prostate being common factors; (3) superimposed upon the chronic infection an active phase occurs, usually caused by some other organism.

Recent investigations show that there is a definite allergic situation in rheumatic fever. The sensitization reaction is the first picture in every case. This is followed by the production of toxin and antitoxin in the body. Cicatrization is the final picture, particularly in the cardiovascular system.

Formerly Aschoff's bodies were given the credit for being the unit of all rheumatic fever changes. Now it is generally conceded that they represent but one factor in the tissue changes.

The signs of activity in rheumatic fever are lassitude, fatigue, irritability, slight rise of temperature, increasing rapid pulse, pallor without anemia (which is due to vasomotor instability), leukocytosis, increased sedimentation, and a definite febrile state.

In regard to the therapy, the analogy between rheumatic fever and tuberculosis was outlined. Statistical information with regard to the advantages and disadvantages of tonsillectomy were given, showing that there is a tendency to lessen the serious result in rheumatic diseases about 35 per cent if the tonsils have been removed.

The best prophylactic is change of climate. Salicylates are fundamental in the therapy because they par-

ticularly reduce the allergic reaction and combat toxins within the system.

The use of foreign proteins is of value, particularly in cases in which there is an idiopathic tendency towards salicylates. Small doses of iodides apparently prevent extensive fibrosis. Absolute rest is excellent and perhaps is the most important feature in therapy.

EZRA A. WHITNEY, *Reporter*.

ERIE

Feb. 5, 1935

The meeting was held at the Hamot Hospital, Erie, President Arthur G. Davis in the chair.

The guest speaker was Brian O'Brien, Ph.D., professor of physiological optics, University of Rochester, Rochester, N. Y.

Dr. O'Brien discussed the physics of ultraviolet irradiation and its clinical application. He discussed the sun's spectrum, illustrating the various radiations contained in its beam. The important factors for consideration are wave length and intensity. Wave length can be analyzed by the spectrum, visible light ranging between 4000 Å and 7200 Å.

Ultraviolet rays (below 4000 Å) comprise not more than 1/1000 of the sun's total radiation. No wave lengths shorter than 3000 Å are obtainable, due to absorption by the ozone in the upper atmosphere about the earth. The exact location of this absorption has been quite accurately determined by measuring the spectrum at sea level, at mountain top (14,000 feet) and last summer in the stratosphere (60,000 feet). This last test was made in connection with the National Geographic Society ascension; although 95 per cent of the atmosphere was passed, only 10 per cent of ozone was eliminated. It is doubtless because of the obliquity of the path of the sun's rays through the atmosphere during the winter months that there is less effective sunshine at this time as compared to the summer.

In addition to physical study by spectrum analysis, ultraviolet radiation can be studied through its biologic effects. Unlike the red of the spectrum, which will penetrate at least 10 cm. of human tissue, ultraviolet rays find the human body quite opaque to their effect. The effect must be estimated at the skin as a primary manifestation or following its systemic reaction.

Bacterial growth can be checked by ultraviolet rays, different bacteria responding similarly depending upon the wave length used. A photo-oxidation reaction is probably responsible. This bactericidal action is probably not important in disease since surface proteins rapidly absorb the shorter wave lengths between 2400 Å and 3100 Å, which are the most bacteriolytic. Since sunlight stops at 3200 Å, any tissue destruction produced is the result of high intensity rather than short wave length.

Ultraviolet radiation produces its effect only when absorbed, this occurring in the corium; the longer rays including red are absorbed by the deeper layers, which produce an elevation of the capillary temperature. Thus the artificial fever following sunburn is a specialized thermal effect of visible light.

In addition to erythema, ultraviolet rays can alter the deposition of melanin pigment, a procedure which can be quantitatively studied even as the bactericidal effect. The maximum is reached through the use of wave lengths between 3100 Å and 2800 Å.

It is recognized that shorter wave-length radiation causes more destruction than erythema as compared with the visible spectrum.

The production of vitamin D by irradiation of the sterols is another method of estimating ultraviolet effect. The maximum activity of this photobiologic reaction comes between 3100 Å and 2200 Å. The study of the use of vitamin D in rickets has been very elaborate during the past 2 decades. In 1919 it was discovered that ultraviolet rays from a mercury arc lamp healed rickets. A few years later, Steenbock and Hess, working independently, discovered the active agent to be of the sterol group. It was not until 1928 that foodstuffs were irradiated practically in order to activate the contained sterols. Only by animal assay can the exact vitamin-D content be known.

Ultraviolet effect can also be studied by means of the methemoglobin reaction and protein absorption reaction.

Ultraviolet radiation is obtainable in the home by the use of therapeutic lamps, irradiated foods, or vitamin D-containing medication. The use of the quartz lamp requires careful technic and painstaking accuracy. In the long run it is probably the most economical for the physician's use. Much safer in its application is the carbon arc lamp which is much less irritating; with proper filtration it imitates sunlight quite well. It is economical except that the time of treatment is much longer than with the mercury lamp.

Carbon-arc irradiation of milk has proved feasible. The first successful work along this line was done in Erie at the White Swan Farms. More recently there has been a veritable fad throughout the country for milk irradiation. It is necessary to have sufficient vitamin-D content, at least 500 international units, per quart of whole milk. This has proved entirely practicable and the most logical method of vitamin-D administration. Irradiated ergosterol and cod liver oil may be used to fulfill the needs for vitamin D.

In discussion, E. L. Armstrong and Orel N. Chaffee, of Erie, stressed the need for private practitioners to know thoroughly the various phases of ultraviolet-ray therapy. Norbert Gannon, Erie, referred to the fact that Dr. O'Brien along with Drs. Arthur Davis and E. L. Armstrong, of Erie, were the first in this country to irradiate cow's milk successfully on a commercial basis, and the first to publish an account of this procedure. The publication of their work in the *PENNSYLVANIA MEDICAL JOURNAL* antedated by more than a year that of Hess and others.

In closing the discussion, Dr. O'Brien said that during the winter months the child should have at least 500 international units of vitamin D per day, which can be very satisfactorily carried by suitably irradiated whole milk. With twice this amount flavor changes may be noticeable. The safe dose is extremely high, there being at least a 100 to 1 ratio between toxic and therapeutic doses.

The cold quartz lamp, although extremely efficient, causes considerable skin irritation because of the shortness of the rays. The mercury arc lamp is in somewhat the same category. The carbon arc, although it has a heterogeneous beam and is quite ineffective, can be made usable by suitable filtration. Better irradiation is produced if the core is filled with element, and a glass filter is used. The shorter wave lengths decompose the ergosterol, are irritating to the skin, and may be destructive to the food vehicle.

Proper ultraviolet administration by medication is not contraindicated in tuberculosis. Theoretically it might be unwise in proliferative arthritis. Direct irradiation must be used judiciously in tuberculosis and in certain skin diseases.

RALPH BACON, *Reporter*.

FAYETTE**Nov. 8, 1934**

The annual medical clinic was held at the Union-town Hospital at 2 p.m. by Howard G. Schleiter, Evan W. Meredith, and John F. McCullough, all of Pittsburgh.

Dr. Schleiter described a male, age 24, who had acute rheumatic fever at age 14 which terminated in a valvular heart lesion. An occasional minor attack of rheumatic fever has been noted since. At the present time the patient complains of precordial pain, dyspnea, and palpitation with a feeling of fullness over the heart. The lesion is at the aortic valve with a marked systolic aortic thrill and characteristics of aortic insufficiency. A diagnosis of aortic stenosis was made based on a systolic murmur and thrill at the aortic area and slight enlargement of the heart. The possibility of prevention and recurrent infection must be kept in mind.

Dr. Meredith presented a girl, age 15, who had been operated upon some months previously for a mass in the right iliac fossa. There was found a thickened terminal ileum, cecum, and vermiform appendix with slightly enlarged mesenteric glands. A leukocytosis preceded the operation during which an appendectomy was done. Postoperatively, the patient had the same complaints and developed 2 abscesses in the right lower quadrant which were followed by fistulae. Here the history suggests the possibility of acid-fast infection but no tubercles were present. Known granulomas are rare in the lower end of the ileum and cecum. In similar cases resections of the bowel are necessary if obstruction occurs. Ileocolostomy has aided mainly. It is difficult to explain fistulae following a simple appendectomy and the possibility of a later ileocolostomy should be borne in mind if the fistulae do not close.

Dr. McCullough presented an obese female, age 34. In July, 1934, a surgical biopsy was obtained from a large fungating mass over the cervix which bled frequently and extended into the broad ligaments. Carcinoma was the pathologic diagnosis. This case has advanced into the third stage. The less instrumentation of the cervix the better. Roentgen-ray irradiation, followed by intracervical radium, is indicated. Infection should be prevented. There is history of cancer on the father's side. In a patient, age 34, the prognosis is not as good as in a patient, age 60.

Dr. Schleiter presented a woman, age 60, who for 5 years has had precordial pain brought on by effort. Recently, severe attacks of right upper abdominal pain have been present followed by epigastric distress, nausea, and occasional vomiting. Any possible gallbladder condition in this case should be thoroughly studied and, if negative, a diagnosis of effort angina would be probable. In discussing this case, Dr. Meredith stated that if a patient had a good gallbladder until she was age 57 the presence of stones would be unlikely. In this case there is no localized tenderness and the roentgenograms show a good functioning gallbladder. Surgery should not be considered before a more definite diagnosis is made.

Dr. Meredith presented a female baby, age 6 weeks, who began to vomit about the third week. The mother put her on artificial feedings but vomiting continued. Thickened cereal with 1/1000 grain of atropine was retained followed by bowel movements. Pyloric stenosis was probably present. It is usually characterized by projectile vomiting with a visible peristalsis from left to right over the epigastrium and a palpable mass over the right upper quadrant. Pyloric stenosis occurs

4 to 1 in babies. Roentgenography in cases of pyloric stenosis is difficult. The opaque material is difficult to administer and even then it is frequently vomited. The reports are very doubtful as a rule. Clinical signs are much more important.

Dr. Schleiter presented a young man, age 27, complaining of precordial pain during the past 4 years. A sense of constriction and clutching existed as if stabbed by a hot poker over the sternum. During an attack he became pale and felt like fainting, with irregular pulse and weak heart beats. The physical examination was essentially negative in all respects. During the past 6 months the patient has been living a moderate life with regular rest and meals. Attacks are now present 2 or 3 times a week with the pain lasting about an hour. A diagnosis of angina pectoris was made, based almost entirely on the history. Effort pain that may radiate is usually present. In this case the patient is rather young, the pain lasts an hour and is not relieved by nitrates.

Dr. Meredith presented a female, age 36, as a case of Paget's disease of the breast. A nipple discharge has been present for the past 4 years. She had been told she had eczema. A mass had surrounded the nipple and dropped off 2 years ago. Bilateral axillary glandular involvement is now present but the patient has lost no weight. The approach to the correct treatment is important. If the lungs are normal and there is no evidence of metastasis, the breast should be removed. The ultimate results depend on the rapidity of the primary growth. Complete excision followed by irradiation is probably the best method of treatment. Dr. McCullough stated that the roentgenograms of this case demonstrate a doubtful metastasis in the hilus of the right lung. Metastasis to the ribs and sternum can be eliminated.

Dr. Meredith presented a female, age 64, with an abdominal tumor under the left costal border. The edge was rounded and notched. This mass has been present for 14 years. The liver was not palpable. A leukocytosis of 15,000 was present, but the differential count was normal. In discussion Dr. Schleiter stated that the diagnosis of long-standing splenomegalia is difficult. This patient has never been disabled. A doubtful diagnosis of Gaucher's disease might be made. The roentgenograms outline the kidney separately from the mass. Irradiation of the spleen should seldom be done if the blood count is low. Irradiation over the vegetative nervous system has benefited a number of cases.

Dr. Schleiter presented a male, age 59, complaining of pain in the epigastrium with loss of weight. Fifteen months previously severe epigastric pain appeared suddenly. Anorexia had caused the loss of 10 pounds in weight in the preceding 10 months. He had severe pain for 4 weeks continuously, which has been less severe since. There is a forceful cardiac impulse with pulsation in the third costal space to the right of the sternum, a roughening of the second aortic sound. Roentgen rays of the chest demonstrate a marked enlargement of the ascending aorta. Evidence of prostatic obstruction has also been demonstrated but no Wassermann has been taken. An aneurysm of the ascending aorta is one of the signs, but an aneurysm of the transverse aorta is one of the symptoms, which may be difficult to explain. The diagnosis frequently depends upon roentgen-ray interpretations. In discussing the roentgenograms Dr. McCullough stated that an aneurysm of the ascending aorta is present, complicated by a doubtful pneumoconiosis or possibly a prostatic metastasis.

Dr. Meredith presented a young man, age 19, who had been injured in an automobile accident. A long inner fracture of the skull was present. The injury to the brain in accident cases is demonstrated by clinical signs. In this case the patient was comatose but restless, and consciousness returned in 2 days. It is important to know the condition of the pulse, blood pressure, and respirations after the accident and if any localizing signs or palsies are present. The intracranial pressure can be reduced by the intravenous administration of 50 per cent glucose and magnesium sulphate. This may be dangerous in the aged. Spinal tapping may aid in decreasing the pressure. Surgery should be considered when there is evidence of extradural hemorrhage. If present, the patient is usually first unconscious, then normal, and later comatose. This is usually slow because the blood has to strip the dura away from the skull producing a lucid interval and may occur as late as 3 or 4 weeks after the accident. Any subdural hemorrhage or localized hematoma may require surgery. The patient with a fractured skull should usually be confined for several months. This aids in preventing complications and a post-concussion syndrome.

RALPH L. COX, *Reporter*.

FRANKLIN

Jan. 15, 1935

This was the occasion of the annual dinner, with 33 in attendance.

The Hon. Watson R. Davison, Judge of Franklin County, spoke on various topics of world-wide interest. He urged the need to work with our administrative leaders, even though we may not always agree fully with them. By laying aside our personal opinions and delving into the work to be done, something salutary is certain to result. The judge referred to doctors testifying in court, one against the other, in outright contradiction. This has brought upon our profession much condemnation, and the oft-reiterated saying, "Oh well, you can hire doctors to testify any way you want."

The judge suggested that in the matter of drunken drivers of automobiles, 2 physicians should be appointed by the court to act at once and together, and their report should be accepted by the court as final as to whether or not the defendant was intoxicated. Such doctors would be beyond the reach of attorneys for either side, being answerable only and directly to the court.

Medical testimony in general should be put beyond the reach of attorneys, outside of all prejudice or bias or suspicion of tampering, by having independent appointments by the court. Complete freedom of speech and of opinion should be permitted, which would aid greatly the administration of justice.

The condition of medical testimony is peculiarly bad under present legal conditions with respect to mental cases and murder trials, as well as to the minor offenses committed by automobilists, particularly when under the influence of drugs or alcohol.

FASSETT EDWARDS, *Reporter*.

LANCASTER

Feb. 6, 1935

The annual banquet, to which the ladies were invited, was held at the Hotel Brunswick in Lancaster. Willis H. LeFever, the newly installed president, was toast-

master. Theodore B. Appel gave an address in which he stressed the importance of the physician's taking an active part in the State legislation now under consideration.

WILHELMINA S. SCOTT, *Reporter*.

LAWRENCE

Feb. 7, 1935

The meeting was held in the Castleton Hotel, New Castle, with 49 members present. The meeting was attended by the Woman's Auxiliary and the County Legislative Conference. President Walter L. Campbell presided.

Robert L. Anderson, District Councilor, discussed socialized medical practice and health insurance, calling particular attention to the fact that this is a very old subject. He referred especially to the proposed legislation of the American Association for Social Security and introduced George R. Harris, of Pittsburgh, who discussed the bill at length.

Chauncey L. Palmer, of Pittsburgh, chairman of the State Society Committee on Public Health Legislation, spoke on our particular problem of answering the proponents of this bill and presenting plans which would provide the people with better service.

The chairman of the local advisory board explained the new procedure for the distribution of cod liver oil by the Emergency Medical Relief and also stated that trusses would be given only to those who presented incarcerated hernia requiring anesthesia for reduction.

The Milk Commission presented bacteriologic and veterinary reports showing satisfactory conditions at our certified dairy which now produces vitamin-D certified milk.

The chairman of the Postgraduate Course Committee, David L. Perry, reported that the first session will be held in the Jameson Hospital on Feb. 20.

A motion was adopted that the dues be increased from \$9 to \$11 for this year.

WILLIAM H. WOMER, *Reporter*.

LUZERNE (HAZLETON BRANCH)

Jan. 23, 1935

The meeting was held in the Elks' Home, Hazleton. William J. Estes, Jr., of St. Luke's Hospital, Bethlehem, Pa., delivered an address on "Fractures—Their Management and Treatment."

He considered some new developments in the treatment of fractures which have been crystallized in the last few years. Regarding emergency treatment, the Thomas splint is an asset, especially as far as the later treatment is concerned. In the World War this became so evident that the Thomas splint was made a routine order for bad fractures in the British Army. When it was used shock was prevented, and the condition of patients on arrival at the base hospital was much better. The same idea has been impressed upon surgeons in New York and Philadelphia hospitals, especially those connected with fire and police departments, so that all such emergencies handled by these departments are now met by ambulances equipped with the Thomas splints.

Dr. Estes demonstrated the application of Thomas splints for the arm and the leg. He urged that ambulance drivers, morticians (who often supply ambulances), boy scouts, and others to whom first-aid is taught be instructed in the application of these splints.

Their greatest value lies in supplying traction at once, and muscle pull does not occur. Other advantages are: The splint can be left on while the patient is transported in the ambulance, and when roentgen-ray studies are made; over-riding and shock are prevented; great difficulties in the hospital treatment (later) are avoided; the period in the hospital is shortened; and comfort is enhanced.

The next important development is molded plaster splints. He has been using these and experimenting with them a great deal. He prefers them to all other splints in the treatment of Colles' fractures. The arm or leg of a patient may move inadvertently while plaster bandages are wrapped around the part, and thus the position cannot be held so securely as with the molded splint. Molded splints hold just as firmly as casts. They can be taken off for examination of the fracture, and for any necessary treatment of soft tissues. Probably no more plaster is required than for casts. Many men are apprehensive of casts, and like them cut so as to prevent pressure. This method obviates such procedures.

After demonstrating the application of molded plaster splints Dr. Estes showed how they are used both for the forearm and ankle. He also stated that one of the splints may be removed early and frequently so that light motion and massage may be given. In this way, the next most difficult task—return of normal function and motion—is accomplished much more readily than with the cast. Splints are best for fractures below the elbow or below the ankle, as early and active motion can thus be obtained more easily.

The third important development concerns the problem of after-treatment. Early reduction, or better, immediate reduction is essential in obtaining a return of normal function following fracture. Reduction not only must be immediate but sufficiently accurate, and this final accurate position should be obtained at the first reduction or, when traction is used, in the first 24 hours. When late reduction is forced upon the patient, the possibility of disability is great. Soft tissue or nerve injuries must be looked for, as well as blood-vessel injury, for any of these will prolong the convalescent and disability period.

What may be considered the *sine qua non* of after-treatment may be summed up as follows: (1) Constant supervision of the immobilization apparatus; (2) early physical therapy; (3) active coöperation of the patient in efforts to regain function; (4) occupational therapy; (5) late protection of the site of fracture—walking caliper, brace, *etc.* Physical therapy's most important position in treatment is early, not late. Light stroking, massage, and faradic current stimulation are most essential. Active coöperation and active motion on the part of the patient play the chief rôles in obtaining normal return of function and avoiding disability. It must be supervised and encouraged constantly. It will be aided by occupational therapy and by early return to work.

In discussion, David A. Johnston stated that most patients with arm or leg fractures from mine accidents admitted to the Hazleton State Hospital come in with straight splints already applied. Those giving first-aid treatments at the mines are not equipped with the Thomas splint. He also requested Dr. Estes' views regarding the Delbet apparatus and his treatment of fracture of the surgical neck of the humerus in the elderly. J. V. Sutula asked when motion should be allowed in fractures of the tibia and fibula. Manfred H. Kudlich asked how far up the arm or thigh a frac-

ture may be and still have the Thomas splint indicated. Laurence H. Smith questioned whether the Thomas splint was good emergency treatment for a fractured patella, and George W. Taggart asked how long foot drop from peroneal nerve injury was apt to persist and cause disability.

In conclusion, Dr. Estes said: The Delbet apparatus is said to meet with approval and be recommended by doctors who are quite familiar with it. Some of us have seen displacement occur with its use, especially in oblique fractures, and in these cases, therefore, it is not so good. If surgical neck fractures in the elderly are not easily reduced, hospitalization and traction are indicated. Fibular and tibial fractures may have motion, with the cast in place, between the fifth and tenth day, but 2 weeks should elapse before disturbing the cast. Thomas splints are good therapy for fractures of the arm or thigh at any position up to the shoulder or hip joint. They are suitable emergency treatment for patellar fractures. Foot drop from peroneal nerve injury generally persists from 8 to 12 months.

The Thomas splint has not yet been introduced in this coal region, nor in the Pittsburgh section. The Massachusetts General Hospital and Hubley Owen of Philadelphia have motion pictures which demonstrate the advantages of the splints. They demonstrate quite conclusively why the Thomas splint should be the emergency method of choice.

JOHN M. DYSON, *Reporter.*

LYCOMING

Jan. 11, 1935

The meeting was held at Williamsport; President Warren Shuman presided.

The Medical Advisory Committee reported that it had reviewed and corrected 5703 medical orders last year, and that \$32,903.28 had been paid to the doctors of Lycoming County in the same period.

Guy L. Hunner, Johns Hopkins Medical School, Baltimore, read a paper, illustrated with lantern slides, on "Ureteral Stricture." He said in part:

Diseases of the urinary tract are usually characterized by urinary symptoms. Intermittent spells of urinary irritation should not be neglected. About 25 per cent of patients having a ureteral stricture do not have local symptoms, and often have only backache, headache, *etc.*

The occurrence of bladder symptoms usually points to some lesion of the urinary system. It is true that bladder symptoms may be due to pelvic disease or diseases of the birth canal. In either case there may be trouble in the urinary tract in conjunction with the pelvic disease. In other cases the major lesion may be urethral or from the trigon and may be relieved with local applications of silver nitrate. In some cases focal infection may be present and it must be corrected or the urinary tract will not respond to treatment. This is true not only of ureteral stricture but also of elusive ulcer of the bladder, otherwise known as interstitial cystitis.

Normal urinalysis does not always mean a negative urinary tract. In fact, a patient may have a bilateral stricture with negative urinalysis. Twenty per cent of patients with ureteral stricture show pus; 50 per cent show a few red blood cells, or white blood cells, or casts. Any abnormal element in the urine means some degree of disease in the urinary tract. Thirty per cent

of patients with urinary-tract disease may show normal urine.

Ureteral stricture is one of the most frequent lesions. Fever defying all diagnostic effort may be due to renal stasis and toxemia, the result of ureteral stricture. Many of these cases have been diagnosed erroneously as tuberculosis. Chronic headache is sometimes due to this condition. Nervousness, neurasthenia, and even suicidal tendencies may occur. Renal backache may be felt over the kidney or as high up as between the shoulder blades. Renal drainage may relieve these symptoms. Lumbosacral pains, hip-joint pains, pains down the thigh even to the toes may be part of the syndrome. Gastro-intestinal symptoms, from anorexia to mucous colitis, may be due to stricture. The 2 important factors causing symptoms are renal stasis and sympathetic nerve irritation reflected over the splanchnic system. Even urologists disagree on the matter of ureteral stricture.

From the general practitioner's standpoint a diagnosis can be made frequently from a careful history, a thorough physical examination, and tests of the urine. All suspicious cases should be referred to a good urologist.

A ureteral catheter with a bulb should be used. Sixty per cent of stricture cases will allow a size 8 or 9 catheter to be passed to the kidney. Upon withdrawal of the catheter the bulb will usually "hang" to some extent at the site of the stricture. At least half of the cases will show definite irritative ureteral symptoms following the passage of such a catheter, but this discomfort is usually followed in a short time by relief of the symptoms. A urogram does not always show a dilated ureter above the stricture. Those having definite dilatation of the ureter can be given the best prognosis following treatment, but those with slight dilatation should receive a guarded prognosis as to relief. Complete relief does not occur in 100 per cent of the cases, but there is quite enough relief to make the work well worth the effort. Following 18 years of agitation in this direction many outstanding clinics and hospitals have all questionable abdominal and pelvic cases so studied.

Not nearly so many nephropexies are being done now as formerly for hydronephrosis. Ureteral stricture is nearly always the cause of this condition and dilatation solves the problem. Pyelitis is treated by dilatation of the ureter more often than by the former method of medical treatment and pelvic lavage. Postoperative pyelitis is becoming less frequent because prior to operation dilatation is done if necessary. Pyelitis of early childhood, formerly diagnosed as gastro-intestinal trouble, is now known frequently to be due to ureteral stricture. Pyelitis of pregnancy seldom needs an abortion. Some cases of repeated abortion due to renal failure can be carried to term if dilatation is done. Renal stone is preventable in many cases. A stone in one kidney should indicate dilatation of the opposite ureter to prevent stasis. Stone on one side implies stricture on the other. Prolonged ureteral drainage following pyelotomy for stone can be obviated by dilatation of the ureter. Essential hematuria is usually due to bilateral stricture and requires dilatation. Renal tuberculosis may be due to stricture secondarily. In a unilateral case the other ureter should be kept dilated. The well kidney has a better chance of survival in the absence of stasis.

Chronic appendicitis, painful ovaries, numerous abdominal scars, dysmenorrhea, the so-called loose kidney and the megalo-ureter are frequently the result of ureteral stricture. There are very few real ureteral

kinks. The roentgenogram often shows kinks that may cause pain, which can be relieved by ureteral dilatation in most cases. Congenital malformations of the kidney may cause little or no trouble if there is no stricture and if they are treated the same as other cases.

In discussion Thomas M. West and La Rue M. Hoffman asked the comparative value of intravenous *vs.* retrograde pyelograms. Dr. Hunner stated that in his opinion the latter are much more accurate and lend themselves to dilatation. In answer to John P. Harley's questions as to spasm *vs.* stricture, Dr. Hunner replied that spasm may interfere with the catheter bulb being inserted but not so much on its withdrawal, that there is a characteristic "hang" when the bulb is brought back through the stricture, and that 1:5000 nupercaine solution sometimes must be used to overcome spasm. Anesthesia will also outrule spasm.

Barton Cooke Hirst, Philadelphia, emeritus professor of obstetrics, University of Pennsylvania Medical School, gave an address on recent studies as to "The Cause of Sexual Precocity in Female Children." He gave a report of a colored girl, age 12, with the chief complaint of convulsions which were due, according to neurologists, to grand mal and petit mal. Menstruation began at the age of 3 months and was regular to date. She had pubic hair at birth and axillary hair at 3 months, walked and talked at age 2 and said sentences at age 3, but appears to have remained mentally defective from that time on. She prefers to play with children age 3 or 4, and mentally is not far above that level. Pelvic examination revealed a uterus equal in size to that of an adult, with ovaries of adult size. Breasts were mature. Skull roentgenograms were negative, particularly the sella turcica. The suprarenals were apparently negative. Granulosa-cell tumor of the ovary was suggested but could not be palpated. In view of the fact that these tumors may become malignant later it was advised that she have an exploratory laparotomy. Because of the mentality being so far below par it was considered feasible to remove the ovaries and thus sterilize her, at the same time saving the ovary for complete study histologically and otherwise.

The urine was studied at the menstrual time and it was found to contain 160 rat units of estrogenic hormone; the normal is 5 or 6 units. The histologic study of the ovary did not show a typical granulosa-cell tumor but did show the graafian follicle to have a marked overgrowth of the granulosa layer of cells with very poor luteinization.

The matter of irritative conditions of the cortex of the suprarenal gland causing a great increase in estrogenic hormone was discussed. Dr. Hirst suggested in view of this study that the multiplication of follicles in the ovary such as this may be a clinical entity and have some connection with sexual precocity.

Endocrinology in women was discussed from the standpoint of treatment. Two basic facts are apparent: (1) There is such a thing as an estrogenic hormone. What can be done with them? It is now accepted that this hormone is useful in the treatment of hypoplastic conditions of the uterus. The usual present dosages are far too small. (2) There is such a thing as a hormone from the anterior lobe of the pituitary gland. According to Aschheim there are 2 distinct prolans of the anterior lobe. If given together the one neutralizes the other. The one prolans develops the follicle up to the point of rupture. The second carries it through luteinization. Certain commercial products contain both and theoretically would not be correct, but the fact is

that some cases of excessive menstrual bleeding, particularly at puberty and during the early menopause, receive benefit from this combined product.

In closing, Dr. Hirst stated that since the last operation on the patient mentioned, the estrogenic hormone has disappeared from the urine completely, but he offered a very guarded prognosis as to the convulsions.

Mr. Henry F. Vaughan, City Health Officer, Detroit, gave an address on the "Rôle of Preventive Medicine," as practiced in Detroit in coöperation with the general practitioner.

The main premise is that the general practitioner should practice preventive medicine as well as curative medicine. The discussion was based on studies covering work done during the past 6 years in Detroit and 5 or 6 adjoining counties.

1. This organization was not a substitute for but rather an adjunct to the health department.

2. The work need not cover diphtheria prevention only, but may be extended to include prevention of smallpox, typhoid, early diagnosis of tuberculosis, early diagnosis of cancer, examination of food handlers, and even periodic health examination. Also the propagation of general health knowledge to the public might be included.

3. Such a program cannot be promoted quickly. One phase should be perfected before launching into another. Three groups are necessary and must be correlated—the medical profession, the health agency, and the public. A most important factor is that the program must be under the control of organized medicine.

The essentials of the program from the standpoint of the medical profession are: (1) Participation and direction. (The doctors participating must be of sufficient number to cover the work, and must be catalogued. The medical profession directs the work.); (2) postgraduate instruction, training the men to be skilled in the work; (3) medical coördination as to days and time of the work, *etc.*; (4) undergraduate instruction at medical schools, where such exist, for certain groups of men.

The essentials for the health agency are: (1) Participation and direction; (2) popular health instruction in which the public is informed of the need, *modus operandi, etc.*, of the program, usually in large groups, radio talks, *etc.*; (3) individual health instruction in certain cases; (4) abolition of free clinics, the work to be done by physicians in their private offices on specially designated days and hours agreeable to all participating.

The medical coördinator visits doctors not participating, in their private offices, informing them of the details of the program and arranging postgraduate or undergraduate training where necessary.

In Detroit 85 per cent of school children were immunized against diphtheria as well as 60 per cent of preschool and 35 per cent of infants from age 6 months to age 1 year.

The doctor is paid by the parent or by the municipality from its health budget. Godfrey has shown that to make diphtheria disappear it is necessary to immunize 60 per cent of school children and 30 per cent of preschool children. In Detroit there were formerly 300 to 400 deaths from diphtheria per year; now there are only 8.

To increase the amount of immunization, individual health instruction, particularly by the visiting nurse, was most helpful. Immunity increased thus from 20 to 90

per cent. There is now in Detroit an agreement between physicians and the health department. At present the parent is charged \$1 for each dose of toxoid, if he can afford it. Two doses are considered necessary to confer 94 per cent immunity. If \$2 is not collectable from the parent for the 2 doses, \$1.50 is paid the physician by the health department.

In Detroit 1100 physicians are coöperating. Special hours on specified days are set apart for the work so it can be grouped. Patients brought outside these hours are charged a private fee. The city is divided geographically into districts and the doctors listed from each district. The visiting nurse in covering the district always recommends the family physician first. If there is no family physician, the nurse produces the list of physicians from that district doing the work and advises the hours of treatment.

Mr. Vaughan gave a survey of work done in Charleston following an outbreak of diphtheria. A newspaper article and radio reports informed the public that doctors listed would be in their offices for the purpose of immunization on Thursdays and Saturdays at 11 to 12 and 3 to 4 o'clock respectively. During the first 4 hours of this effort 2500 children came for immunization; within 2 weeks there were 5000; 50 per cent protection was effected for school and preschool children; and 52 per cent paid privately. In a clinic much less would have been paid.

Even if the treatment is given free, it pays the doctors in the improved relations with the public. Other forms of preventive medicine can be introduced at such times, such as vaccination, annual health audit, tuberculin testing, *etc.* Faddists are dealt a real blow.

At the end of 6 months a form letter is sent to the parents of babies, age 6 months, urging the same. A simple card is used in Detroit for which the health department pays the postage and which records the immunization for their files.

Some clinics will have to continue, such as the tuberculosis clinic.

In the same city \$60,000 was lost to physicians in a given time by eliminating diphtheria, while \$300,000 was the income to physicians from immunization, a gain of 5 to 1. The health department saved enough money to finance the campaign. The family physician-patient relationship was preserved. Physicians are paid. Other forms of disease are recognized earlier. The cost of prevention to any locality is far less than the previous treatment of the disease. Included in cost of treatment of the disease must be health department supervision, home treatment, hospital, and, if fatal, the burial cost.

Other professions needed to mold thought in the community may have to be enlisted in such a campaign, such as school teachers and the clergy. In the future, school teachers will hear more about preventive medicine in their courses of health education. Posters referring children to their family doctors can be used. Each community will have its own individual problems to be adjusted in such matters.

The annual banquet was held at 7 p.m., with Robert K. Rewalt as toastmaster. Among the speakers were Guy Hunner, Barton Cooke Hirst, Moses Behrend (president of the State Society), James R. Rankin, District Councilor David W. Thomas, Warren Shuman (retiring president), and Herbert P. Haskin (incoming president).

LA RUE M. HOFFMAN, *Reporter.*

McKEAN**Jan. 15, 1935**

The meeting was held at the Emery Hotel, Bradford. Following dinner, Charles G. Strickland of Erie gave a résumé of maternal mortality statistics, stating that Pennsylvania's rate closely approximates that of the entire United States (6.3 per 1000). Difficulty in ascertaining causes was due in great part to old incomplete records, and he suggested that each maternal death be reported fully and as early as possible so that more helpful and definite conclusions might result. Cooperation of the society was assured him.

W. Blair Mosser of Kane spoke on "Infections of the Hand," illustrated with motion pictures and diagrams.

T. S. FANNIN, JR., *Reporter.*

NORTHAMPTON**Jan. 18, 1935**

The meeting was held at St. Luke's Hospital, Bethlehem.

Walter D. Chase stated that the American Medical Association is not doing its duty by the profession and that it should present some plan of action that could be used by the component societies in an effort to ward off state medicine.

A motion was adopted to send to each county society in this country a copy of the special bulletin of this society.

A motion was adopted that a compilation be made of the resolutions adopted by this society during the year 1934, and presented to each new member, that he may be informed of the action taken on various subjects.

Jesse Kiefer, of Easton, was elected to membership. The application of Milton W. Philips for affiliate membership was approved.

The following officers were elected for the coming year: President, Francis J. Conahan; first vice-president, William J. Happel; second vice-president, Kenneth W. Kressler; secretary-treasurer, Frederick O. Zillesen; corresponding secretary, Russell S. Rinker; reporter, F. J. Pearson; censor, Walter D. Chase; district censor, W. Gilbert Tillman.

Retiring president Donald C. Richards in his address based his remarks on the minutes of this society in other times of crisis. He quoted from the minutes, showing that the men who founded this organization and tended its early life had problems somewhat similar to ours, about which they minced no words but tried strenuously to solve by the most direct means possible even at the expense of each other's feelings.

To contrast then and now, especially as to fees and other problems, the minutes of the first meeting of the Northampton County Medical Society held July 10, 1849, were read.

Our elders were outspoken in their dealings with one another. They did not wait until after the meeting was over and then become "grand-stand quarterbacks." If a meeting time did not suit them they said so in meeting, not to a few of their friends after adjournment had taken place.

They had a code of ethics adopted in regular meeting on April 17, 1875.

It is true that they did not have the problem of socialization of medicine to deal with. If they had we would not now have all this useless, time-wasting bickering, indecision, divergence of opinion, and even

disloyalty, for disloyalty in those days was punished. Perhaps it is the rocking-chair diagnoses we are able to make because of laboratory and roentgen-ray facilities that has dulled our sensibilities, and made us forget our duty to our patients and to each other. Perhaps it is the ease of transportation that has made us lose sight of any altruism that should have been handed down to us by those men who wore out shoe leather and horse flesh spending hours to make a call that takes us one-tenth of the time. Whose fault is it that we must stoop to petty politics to fight social agencies whose humanitarian motives are hooked up either with personal gain or aggrandizement of some sort, mostly cheap publicity? The root of this evil had its seed sown in our own ranks. Why is it, with a membership of 150 men, we average 45 to 50 in attendance at these meetings? Either the absentees do not wish to take the trouble to make a 20-minute trip from Easton to Bethlehem, or vice versa, or they do not hold with the opinions of the interested and wide-awake members of the society and instead of coming to the meetings and voicing their opinions, choose to sit at home, grumbling and condemning the interested element and acting like disgruntled, sulky, and thoroughly spoiled children.

Let me take just one more page out of the journal of our pioneers in the profession of medicine. The retiring president spoke thus on Jan. 21, 1856, and they are my sentiments word for word. "The president during the course of a few extemporaneous remarks stated that he deeply lamented that there appeared to be a feeling of marked indifference with regard to the success and prosperity of our organization in the minds of many of our members with whom he conversed. He trusted this feeling of lukewarmness would not be encouraged, and expressed the hope that a deeper interest would be felt in the welfare of the society, believing as he did that all connected with it would ultimately feel the benefits attendant on an organization of this kind. In cases of personal difficulty each ought to pursue that course best calculated to restore harmony, and in place of widening the breach, illustrate the nobleness of the physician's mission by showing, particularly for each other, charity, forbearance, and patience."

A resolution was introduced to change the by-laws to abolish the office of corresponding secretary and provide the office of reporter and bulletin editor.

A committee was appointed to arrange appropriate observation of the fact that the family of Green, as represented by the present Edgar M. Green and his father, has practiced medicine in Easton continuously for the past 100 years.

FREDERICK J. PEARSON, *Reporter.*

PHILADELPHIA**Jan. 23, 1935**

The meeting was devoted to a symposium on "The Medical Profession and the Socialistic Trend."

The symposium was preceded by an address by Mr. Robert T. Johnson, the newly appointed State Director of Relief. He indicated his desire to establish contact with the medical profession on a friendly basis. Appreciating the newness of his responsibilities he enunciated a program in which he stated he desires to give relief to every family that needs it but that he does not want to give it to those who do not, and he anticipated further the creation of an administration of relief which would be effective, intelligent, economical, and

businesslike. He cautioned against impatience with delays incident to changing administrations, and at the same time assured every one that letters containing intelligible details of cases will receive prompt consideration.

"Organized Medicine and Social Insurance," was the title of the address of Francis F. Borzell, chairman of the Committee on Medical Economics of The Medical Society of the State of Pennsylvania. He referred to the tremendous strain under which society has been laboring during the last few years. In the hope that some outlet could be found that would forever make impossible similar experiences, society has shown a tendency to accept certain well-lauded economic panaceas, largely in the form of various types of social insurance. Some of these have directly impinged on the established practice of medicine. The medical profession has been particularly agitated by recommendations for state and nation-wide readjustment of the prevailing economic relationship of patient and physician. In the serious concern for the maintenance of professional integrity, we have perhaps momentarily lost sight of certain correlated phases that should demand serious consideration. Prominent among these is the fact that all the insurance schemes proposed are essentially insurance against poverty. The essayist availed himself of a veritable treasure house of allegory and hyperbole to delineate the sophistries of those whose living depends upon reconstruction of the social system for the benefit of the proletariat. Outstanding in his contentions was reference to the glorification of mediocrity as a dominating feature of the various social-security plans. The stimulating effect of stress and adversity was accorded due recognition. Social progress can be attained only by social struggle. Since society is a composite entity, a grouping of its basic units as it were, its progress is dependent on the degree of tension applied and resisted by the individual. Hence society cannot hope to progress without some individual effort. In substantiation of this thought he referred to the rapid growth and development of this country in contrast to those countries where the socialistic ideas predominated. He further drew analogies to the quality of medical service available to those of limited income in these latter countries as compared with the same class in the United States. His plea was for the retention of the fundamentals of medical practice in this country with expansion and progress along these well-tried lines, rather than for the creation of elaborate and expensive bureaucracies for the dispensation of indifferent medical service, which would tend to pauperize not only the patient but the physician also. Social security is not to be had by disturbing the medical profession. The profession must, however, expect to identify itself with the study of all social problems, not only for its own protection but for that of society as well.

"The Medical Economics Program for 1935," was read by Nathan B. Van Etten, of New York City, one of the signers of the Minority Report of the Committee on Costs of Medical Care. Introducing his subject with rhetorical reference to a fictitious regimented community he launched his theme with the statement that the Doctor of Philosophy is now trying to prescribe. Will the American people take his medicine? Definitions of socialism, socialized medicine, and state medicine were given indicating the trend the philosophers are following. In the light of the debasing foreign experiences with state medicine and of our own experiences with political bureaucracy, the physician who respects the high calling of his profession is urged to

meet the threat of an extension of state medicine in this country as a militant fighter for the maintenance as well as for the elevation of his ideals. It would be a backward step into chaos if the Department of Labor, for instance, should attempt to impose upon the medical profession codifications such as those which have created such confusion in industrial and agricultural production. Dr. Van Etten's quotation of Ogden Nash's bit of doggerel entitled "One from One Leaves Two" enlivened this instructive paper materially. Statistics were quoted relative to physicians' incomes, and some interesting data was given regarding the distribution of physicians and the extent of hospital and dispensary abuse in New York City. Dr. Van Etten analyzed the groups that were interested in compulsory health insurance. The position of the medical profession was stressed in its plea for the maintenance of only the best medical care for the American people with the disbursement of the medical dollar among those directly concerned with the care of the sick.

"Some Problems of Medical Care. Is Health Insurance the Solution?" was given by Arthur C. Christie of Washington, D. C., who also signed the Minority Report of the Committee on the Costs of Medical Care. He outlined the tremendous overhead expense for the administration of several European forms of compulsory health insurance and then passed on to a description of the constructive activities of the physicians of the District of Columbia in their efforts to meet the demands for a more modern system of medical care. The model health insurance bill was also discussed. (This and the 2 preceding papers will appear in full in the supplement of the *Weekly Roster and Medical Digest*, the official publication of the Philadelphia County Medical Society.)

SAMUEL HORTON BROWN, *Reporter*.

WASHINGTON

Jan. 9, 1935

The annual meeting was held in the George Washington Hotel, Washington, in the form of a dinner, at 7:30 o'clock. Milton F. Manning of Beallsville was elected president. Charles Geschickter, head of the Surgical Pathological Department of Johns Hopkins Medical School, gave an address on "Tumors and Hormones."

There are 2 groups of hormones: (1) Metabolic hormones, such as insulin, maintaining status quo; and (2) those hormones which have the power to add stature or increase development. The latter group may be divided into anterior pituitary and sex gonads. The anterior pituitary gland secretes a growth hormone and a sex hormone. Hormones of the anterior pituitary gland have the power to cause gigantism in children and acromegalia after puberty. In children they may cause sexual precocity. When these hormones are present in excess they may cause the growth of tumors in certain areas. If these hormones are injected into animals, changes similar to the histologic changes found in tumors are produced. When tumors are present, these changes may be produced from the tumor.

It was found that when sarcoma occurs, the patient has too much anterior pituitary hormone, so experiments were started by injecting the growth hormone into rats. This produced enlargement of the jaw. The animals were then fed dye matter; just beneath the periosteum where the tumor was growing, there appeared the same staining by the dye, showing, in all

probability, that this new bone formation has a similar relationship to the pituitary hormone.

When acromegalia occurs as a result of disturbance of the anterior pituitary gland, other conditions are often associated, the most common being the so-called cutis pendula, due to the abnormal growth of the connective tissue and nerves, or subcutaneous neurofibromatosis.

The production of pseudopregnancy in the female can be caused by disturbance of the pituitary gland as the basophilic cells hypertrophy during normal pregnancy. Pituitary hormones affect the distribution of fat, nerve sheath, and bone. Individuals having tumors of any of these 3 structures have some endocrine disturbances. Similar changes have been produced in animals by injection. Puberty could not take place if the hypophysis were removed. The pituitary sex hormone bears a definite relationship to the ovary. The testicles and prostate in males parallel the ovaries and uterus in the female.

The Aschheim-Zondek test depends upon the presence of placental tissue for its positive reaction in pregnancy, proving that the pituitary body does not work alone in pregnancy but calls upon the placenta. In this test, if there are over 50,000 units, hydatidiform mole must be considered as a possibility in diagnosis. A similar reaction exists in teratoma of the testicle in the male. If benign hypertrophy of the breast exceeds the enlargement of normal puberty, the assumption is that there is too much pituitary or ovarian hormone. There is a definite analogous condition in the male with increased chorionic tissue. Experiments are now being conducted to try to prove that prostatic hypertrophy is due to too much of this pituitary substance. Injection in animals caused a definite enlargement of the prostate gland, with retention of urine and enlargement of the bladder. Fourteen out of the 15 animals injected showed high prolactin. They were allowed to live for 6 months. Where prostatic hypertrophy was induced, the monkeys also showed enlargement of the breasts and pituitary and female sex hormones. Enlargement of the breast was produced by injection of the female sex hormone. In cases of fibro-adenoma and fibrosarcoma, large amounts of the female sex hormone, or estrin, are found.

When these hormones are present in excess they become exaggerated growth. Tumor formation is merely a localized accumulation of that exaggerated growth, or a highly concentrated growth. Experiments now tend to show that the pituitary hormone is the controlling factor in all tumor growths.

SAMUEL A. RUBEN, *Reporter.*

YORK

Jan. 19, 1935

President Robert L. Ellis was in the chair. Thomas A. Shallow, professor of surgery, Jefferson Medical College, Philadelphia, discussed "Parathyroid Tumors and the Bone Manifestations Occurring in Hyperparathyroidism."

He said in part: The etiology of pathologic manifestations probably has 3 factors concerned—(1) trauma, (2) hyperplasia of the osteoblasts, and (3) metabolic origin such as osteomalacia, giant cell tumor, osteoporosis, etc.

There is alteration in the blood. The parathyroid gland may be involved after a simple adenoma or a toxic thyroid.

In the toxic adenoma 1 of 2 glands may be affected and others carry on normally so that some are in the stage of normal activity and others are abnormal, thus affecting the blood chemistry.

Several cases of altered blood chemistry, giant cell tumor, hyperparathyroidism, etc., were shown with lantern slides.

Giant cell tumor, bone cysts, and Paget's disease may occur in the same patient. If toxic adenoma exists, the blood picture and bones should be studied carefully.

In discussion, Julius H. Comroe, York, stated there may be bone disease with normal parathyroids. He mentioned a patient at the Philadelphia General Hospital in whom there were excellent clinical results. The removal of one gland might hold the hormone with others diseased. Dr. Comroe cited the case of a patient suffering with osteoporosis with normal blood findings. He asked if it was not difficult to determine the presence of parathyroid disease in senile patients. Charles Rea, York, stated that the treatment of impending tetany was by the administration of parathyroid hormone and vitamin D. He asked what is the relationship between injury and tumor of parathyroids with the attendant blood-chemistry picture; is there disagreement in the field of study of parathyroid disease: is enlargement of the parathyroids not pathognomonic in itself; is lipid present; what is the susceptibility of various lower animals to thyroid and parathyroid disturbances; is the connection between hypercalcemia and duodenal ulcer new? Louis S. Weaver, York, stressed the relationship between the thyroid and parathyroid glands. Harris R. Leckrone, York, quoted the treatment of tetany following operations on the thyroid gland in cases in which parathyroid glands were probably injured, with large quantities of calcium. Henry D. Smyser, York, asked if deep roentgen therapy affects the thyroid activity in cases in which this treatment is used for parathyroid disease?

In closing Dr. Shallow stated that in treating parathyroid disease by roentgen rays there is some effect probably on the thyroid gland, but the question of dosage seems to prevent hypothyroidism. Roentgen rays are not of value in simple adenoma, but do help in the toxic type. Every surgeon doing thyroid work probably removes parathyroid glands, and tetany should be controlled by calcium and parathormone. Paget's disease is disputable where other diseases such as osteocysts and osteoporosis exist. Bone injury may start along the epiphyseal line in childhood. A tumor of the parathyroid may contain all parathyroid hormone and its extirpation cause tetany and death. In senile decalcification it is a difficult problem to determine whether parathyroids are diseased or not. Vitamin D and nitrohydrochloric acid may still be used to treat hypoparathyroidism.

H. MALCOLM READ, *Reporter.*

FIFTH COUNCILOR DISTRICT COMMISSION

A meeting of the Councilor Commission of the Fifth Councilor District was held at 1 p.m., Jan. 30, 1935, in the Harrisburger Hotel, Harrisburg. Forty-two members were in attendance; every county was represented. Councilor Clarence R. Phillips presided and opened the meeting with a few pertinent remarks on the all-important subject of sickness insurance.

Sickness insurance has been introduced everywhere

with very little consultation with, and often largely against the wishes of, the workers who were to become the patients and the physicians who were to give the medical service.

One of the most striking conclusions that arise from any comparative historical study of sickness insurance plans is their highly experimental character. After a half century of existence, those of Germany and Austria are still changing rapidly due to constant dissatisfaction with details.

Shall we copy the mistakes of Germany and Austria and England, or shall we approach the subject from a somewhat different viewpoint because of the important fact that conditions in this country even during this depression are vastly different from the conditions in any other country in the world? In support of that statement Dr. Phillips mentioned that in this fifth year of the depression we are still driving 23,000,000 automobiles, 1 for every 5 of our population, counting those in jails and poorhouses and those who have been on relief for 3 years.

But the social security program which is under way in Washington and in the several states has assumed such proportions that we must be prepared to meet it. By that statement Dr. Phillips meant that we must have a plan of our own, a definite forward-looking plan. We must not be placed in the position of merely being against the plans proposed by social reformers and labor organizations.

He called attention to the fact that the discussions at councillor commission meetings broaden our conception of the problems facing the profession. He emphasized the importance of each member taking back to his respective county medical society the information gained at such meetings in order to help the general membership get a better knowledge of these problems.

No matter how we differ from these social reformers we are all working toward the same end—security. Our objective as a profession is to agree upon some plan. In order to do so we must be willing to make concessions.

Dr. Phillips concluded his remarks with the suggestion that each member secure the publication of the American Medical Association on sickness insurance and allied subjects.

Chairman Chauncey L. Palmer of the State Society Committee on Public Health Legislation, outlined the various economic factors existing at the present time and discussed the general trend of governmental action. He stated that joint legislative committees, which include representatives of the allied professions, had been organized in 31 counties. Most of the other county medical societies have active legislative committees. Many of the legislative candidates were interviewed; most of the successful ones will coöperate with the medical profession.

He gave a résumé of the basic facts concerning the more important foundations and similar organizations—the Milbank Fund, the Rosenwald Foundation, the Twentieth Century Fund, the Pollak Foundation for Economic Research, the Committee on the Costs of Medical Care, and the American Association for Social Security.

The health activities of the Emergency Relief Administration were outlined, and the attitude of President Roosevelt's Committee on Economic Security was discussed. The problem of health insurance has been de-

ferred for the present by this committee, and this action has been confirmed by the president.

Dr. Palmer discussed the more important bills introduced into the present session of the legislature. All physicians in both the Senate and the House are members of their respective committees on Public Health and Sanitation.

James S. Taylor, chairman of the Commission on Maternal Mortality, addressed the meeting on the work of the commission. He discussed the organization of the commission, its plan of action, and the scope of the state-wide survey on maternal welfare.

The year 1935 is to be spent by the commission in "selling" to the physicians the need and scope of prenatal care. The leading cause of the death of women in pregnancy of more than 28 weeks' duration is sepsis. For this condition the profession as well as the public is partly responsible. The death rate of women in childbirth has shown practically no decrease for more than 20 years. All surveys that have been made arrive at the same conclusion; namely, that at least two-thirds of the maternal deaths can be avoided.

The most important cause of death is septicemia, which accounts for almost 40 per cent of the total. An additional 25 per cent is due to albuminuria and convulsions. The largest part of the remaining 35 per cent is traceable to the so-called accidents of pregnancy and labor.

There is one solace in this vast problem of sepsis; namely, that abortions constitute a large contributing factor. Recently the incidence of abortion has been increasing. The public must be advised and warned more thoroughly regarding the dangers of abortion. Neither the public nor the profession appreciates the seriousness of abortifacient hemorrhages, and fuller coöperation must be obtained.

The records show a marked delay in the diagnosis of tubal pregnancy. Several other facts stand out alarmingly. Notable among them is that operative procedures are performed in acutely exsanguinated patients and also that unnecessary additional surgery is attempted too often. These 2 factors superimposed upon delayed diagnosis show clearly a lack of professional appreciation of the signs and symptoms of ectopic pregnancy.

Ectopic pregnancy mortality figures point to several important conclusions: Failure of diagnosis; need of increased appreciation of the necessity for transfusion as a vital accessory to operative treatment; too much ill-advised unnecessary surgery, and ignorance of the significance of symptoms on the part of the laity.

Cesarean section is a most useful operation, but the most abused one in the surgical category.

In concluding he stated that the commission would endeavor to sensitize the medical profession regarding the deficiencies, defects, and omissions with regard to obstetric care. With the coöperation and support of the profession and the understanding and enlightenment of the mothers, there will be less risk in childbirth in the future than there has been in the past.

Francis F. Borzell, of Philadelphia, chairman of the State Society Committee on Medical Economics, addressed the meeting. This paper will be published in full in the April number of the JOURNAL.

An unusual feature of the meeting was the fact that every member present participated in the discussion. Dr. Phillips emphasized the importance of a real interchange of ideas, and those present responded enthusiastically.

The Woman's Auxiliary to The Medical Society of the State of Pennsylvania

MRS. GEORGE C. YEAGER, *Editor*, 1419 E. Susquehanna Ave., Philadelphia, Pa.

A MESSAGE FROM OUR PRESIDENT

DEAR AUXILIARY MEMBERS:

The mid-year board meeting was held in Harrisburg, Feb. 1, with 17 members present and a report given or sent by every committee. The report showed the work progressing well under capable committee chairmen. We feel proud that we are privileged to belong to an organization that can be called an auxiliary to a profession that ministers to suffering humanity. We are what our name signifies—"that which helps."

We have been asked by the national organization to increase our membership. Every county president should fix her eye on a membership goal and at the end of the fiscal year report an increase in membership.

The finances are in excellent condition and the present method of budgeting is most satisfactory.

I am happy to report this to you and I do not need to tell you of the pleasure it was to meet with the Board and hear their plans. May our work continue throughout the remainder of the year!

NAOMI L. (MRS. LAURRIE D.) SARGENT.

COUNTY AUXILIARY REPORTS

Allegheny.—On Jan. 23, 85 members of the auxiliary attended the meeting held in the William Penn Hotel. Dr. C. L. Palmer, chairman of the Committee on Public Health Legislation of the State Society of Pennsylvania, gave a talk on "Pending Health Legislation."

The auxiliary will sponsor a bridge tea at the William Penn Hotel, Feb. 12, for the benefit of the Medical Benevolence Fund of the State Society. The proceeds will be used for the relief of pecuniary distress of sick or aged members, or the parents, widows, widowers, or children of deceased members of the State Society.

Chester.—The auxiliary met at the Chester County Hospital on Jan. 15.

Luncheon was served at 1:30; the president, Mrs. Howard Mellor, presided. The report of the treasurer showed a balance of \$67.89.

Three new members were reported—Mrs. A. W. Gottschall, Mrs. Charles J. Steim, and Mrs. F. B. Robinson.

The magazine *Hygeia* is being sent to schools and libraries.

Mrs. U. G. Gifford, chairman of the Courtesy Committee, reported having formed 2 sections in her committee—hospitality and transportation.

Leaflets of the year's programs have been arranged by the president and the chairmen of all committees.

These were distributed. The different events were discussed and voted upon.

Our tenth birthday is to be celebrated March 27, with a dinner to which the husbands are to be invited.

In May, on Reciprocity Day, we expect to meet in Coatesville. In June the Benevolence Fund benefit in the form of a card party will be held at Mrs. Mellor's home.

Dr. A. W. Gottschall gave us a talk on "Sterilization," detailing the points for and against its practice. He said there were many cases in which one generation after another produced mental delinquents or epileptics and one family of low mentality produced a genius. This makes a strong point against the practice. The expense of caring for these mental defectives in all the states is a staggering item. In one case alone, an unmarried woman and her 17 children are all on county aid amounting to thousands of dollars a year.

Dr. Everett S. Barr spoke along the same line but stressed the fact that too much money is spent on the "trimmings." Such patients are not used to the modern equipment which many are trying to force upon them. As the modern apartments are above their social and mental state, so is the modern hospital. It supplies luxury they have never dreamed of enjoying.

Clinton.—The members of the auxiliary were guests of the Clinton County Medical Society at their annual banquet, held at the Hotel Fallon, Lock Haven, Jan. 25. President Moses Behrend of the State Society was guest speaker.

Each woman was presented with a rose.

The annual meeting of the auxiliary was held after the banquet, and Mrs. E. C. Blackburn, of Lock Haven, was elected president.

The auxiliary, this year, is furnishing and maintaining a room at the Lock Haven Hospital.

A card party will be held in March, at the home of Mrs. David W. Thomas, for the Benevolence Fund.

Dauphin.—Sounding the keynote of "service" as the pledge for the coming year, Mrs. George H. Seaks was installed as the new president of the auxiliary at the annual luncheon meeting, held at the Penn-Harris Hotel, Harrisburg, Tuesday, Jan. 23.

The honor guests were Mrs. L. D. Sargent, state president, and Mrs. John R. Davies, chairman of the State Public Health Committee. Mrs. Sargent stressed the importance of the Medical Benevolence Fund and reported that the money was used as fast as it came in, and especially complimented the Dauphin County Auxiliary for its outstanding endeavors in behalf of this project. Mrs. Davies spoke on public health education.

The president announced the following officers and chairmen for the ensuing year: President, Mrs. George H. Seaks; president-elect, Miss Dorothy George; first vice-president, Mrs. Joseph W. Shaffer; second vice-president, Mrs. F. L. Van Sickle; recording secretary, Mrs. John H. Fager, Jr.; corresponding secretary, Mrs. W. Drury Hawkins; treasurer, Mrs. E. Kirby Lawson; directors, Mrs. H. F. Gross, Mrs. M. V. Hazen, and

Mrs. D. I. Miller. Committee chairmen: Program, Mrs. Harvey F. Smith; hospitality, Mrs. H. K. Petry; membership, Mrs. George F. Gracey; welfare, Mrs. Jesse L. Lenker; public health and public relations, Mrs. C. R. Phillips; ways and means, Mrs. D. E. Hoff; health, Mrs. Carson Coover; legislative, Mrs. Charles B. Fager; publicity, Mrs. Maurice I. Stein; *Hygeia*, Mrs. W. J. Albright; telephone, Mrs. A. Harvey Simmons; auditing and budget, Mrs. Hewett C. Myers; and nominating, Mrs. H. Hershey Farnsler.

Seventy-five members attended the luncheon and reports were given of the past year's activities along the lines of welfare work, public health education, and public relations. A definite and constructive program was carried out throughout the past year in philanthropic, social, and educational endeavors.

Franklin.—The auxiliary closes another successful year in February, at which time the doctors will be entertained at dinner by the auxiliary. The meetings during the year were held in the several towns of the county, the auxiliary being entertained by the respective members in these towns.

During the past year a roll call was held to which each member responded by giving some interesting data on a previously selected subject. We also decided to have 2 extra meetings a year of a purely social nature. The work in which we are especially interested is the making of garments for the maternity wards of the 2 hospitals in the county and the supplying of books to the children's library at the Mt. Alto Sanatorium.

The meeting on Jan. 29 was held at the home of Mrs. S. D. Shull, Chambersburg. Mrs. S. Dana Sutliff, president, presided. The book committee reported that 400 volumes had been taken to the children's hospital at Mt. Alto.

Mrs. P. D. Hoover, of Waynesboro, read a paper on Bell pottery; Mrs. S. D. Shull spoke on luster ware; and Mrs. Sutliff read a paper on "How the Old Court House of Shippensburg was Furnished for the Civic Club Home."

At the roll call the members displayed antiques, among them old instruments used by the doctors in the valley, old snuffboxes, old utensils for making pills, old needle-work belonging to doctors' wives, and old china.

Lackawanna.—The auxiliary has done a widely diversified work, emphasizing the state benevolence fund and public health, the latter through the medium of child health work. Mrs. Laurie D. Sargent, of Washington, Pa., was the guest of honor at a bridge luncheon, Nov. 26, at the Century Club in Scranton. She spoke briefly of the various types of work being done by the societies throughout the state. During this meeting a brief silent tribute was paid to the memory of the late Mrs. C. L. Frey and it was decided to make a contribution in her name to the Benevolence Fund. Mrs. Frey was always very active in auxiliary matters, served as state vice-president in 1930-31, and was the chairman for the president's luncheon at Scranton during the convention of 1931.

At the meeting, Jan. 8, the following officers were elected: Mrs. H. M. Kraemer, Scranton, president; Mrs. J. A. Mackintosh, Archbald, second vice-president; and Miss Sadie Falkowsky, Scranton, recording secretary. The treasurer reported that \$150 had been raised toward the Benevolence Fund pledge for 1935. Ten new members were received during the year. The auxiliary sponsored the Child Health program in 2 districts of the city. Special speakers were obtained for each district.

Mrs. Robert R. Schultz, retiring president, was honor guest at a tea given by the auxiliary on the afternoon of Jan. 23, at the home of Mrs. E. L. Kiesel, of Scranton. In behalf of the auxiliary, Mrs. W. T. Davis presented a gift to the retiring president in appreciation of her services to the organization. A musical program was given. There were 90 present.

Luzerne.—The second annual meeting of the auxiliary was held Jan. 22, at the Women's Clubhouse, Wilkes-Barre; nearly 100 were present. Mrs. C. W. Prevost, president, presided.

Dinner was served. Mrs. Ebenezer Flack gave the invocation, and Mrs. Prevost gave an address of welcome. The following officers were elected: Second vice-president, Mrs. H. Ward Fisher; treasurer, Mrs. Edward Dougherty; and corresponding secretary, Mrs. Robert S. Woehrl. Annual reports were given by the officers and the various committee chairmen.

It was recommended by the executive board that the auxiliary make a contribution of \$100 to the Medical Benevolence Fund. This year a Social Hygiene program will be sponsored for the educational meeting which is scheduled for March. The younger members have been anxious for a dance, and a formal ball will be given at an early date.

Lycoming.—The regular monthly luncheon meeting of the auxiliary was held at the Woman's Club, Williamsport, Jan. 11. The following officers were elected:

President, Mrs. James H. Burrows; first vice-president, Mrs. John A. Campbell; second vice-president, Mrs. P. H. Decker; third vice-president, Mrs. G. D. Castlebury; treasurer, Mrs. Archibald M. Cook; recording secretary, Mrs. Ross K. Childerhose; corresponding secretary, Mrs. Isidore Di Salvo; directors for 1 year, Mrs. C. W. Youngman, Mrs. C. F. Seaton, Mrs. T. Marshall West, and Mrs. Frederic E. Sanford.

The committee chairmen appointed are as follows: By-laws, Mrs. Edward Lyon; legislative, Mrs. J. L. Mansuy; public relations, Mrs. G. D. Castlebury; public health, Mrs. L. E. Wurster; membership, Mrs. George R. Drick; *Hygeia*, Mrs. Henry B. Mussina; ways and means, Mrs. W. Eugene Delaney, Jr.; affiliation, Mrs. John B. Nutt; publicity, Mrs. Isidore Di Salvo and Mrs. R. K. Childerhose.

The annual dance given by the auxiliary on Dec. 26, at the Lycoming Hotel, was a big success; the net total of the proceeds was \$475. The auxiliary gave \$300 to the Williamsport Hospital to apply on the payment of the deep therapy machine recently installed.

Montgomery.—The auxiliary held its meeting Jan. 2, at the Nurses' Home, Norristown. Mrs. Herbert B. Shearer presided.

Montour.—The auxiliary has held 2 meetings during the fiscal year, the first being held in connection with the annual outing of the county medical society at McIntyre's Grove on Aug. 18. At that time Mrs. J. Allen Jackson was elected delegate to the state convention in Wilkes-Barre in October and plans were discussed for a card party. The card party was held on Oct. 19, in St. Hubert's Hall, Danville, the use of which was permitted free of charge; \$23.75 was realized, and was used for the purchase of material for layettes for distribution by the state nurse, the garments being made by the members of the auxiliary.

The second meeting was held at the home of the president, Mrs. H. F. Hunt, Dec. 13. Mrs. Jackson gave a report of the state convention. The afternoon was

spent in sewing on the layettes, after which tea was poured.

There is an average attendance of 10.

Northampton.—The meeting of the auxiliary was held Jan. 9, at the Old Sun Inn, Bethlehem. Mrs. Carl Welden, newly elected president, presided. Luncheon was served. The following committee chairmen were appointed: Ways and means, Mrs. Harry Leibert, Bethlehem; attendance, Mrs. Wm. Finady, Bethlehem; membership, Mrs. Frederick Roberts, Easton; flower, Mrs. Clarence Hummel, Easton; publicity, Mrs. Clifton Daigle, Easton; public relations, Mrs. Francis J. Conahan, Easton.

An open discussion as to our activities during the coming year was held. It was decided to hold at least 2 meetings at the local hospitals making surgical dressings. The time suggested was from 10 to 4.

Mrs. Herbert Schmoeyer presented gifts of \$5.00 each to the officers of 1934.

Washington.—The November meeting of the auxiliary was held in the Nurses' Home, with Mrs. J. H. Corwin, president, presiding. The Program Committee had planned to devote this meeting, as well as the one in January, to the life and achievements of the late Dr. S. Weir Mitchell. Mrs. Corwin opened the meeting by giving a biography of Dr. Mitchell. A review of his book, *Hugh Wynne*, was given by Mrs. Clarence Crumrine. Mrs. R. G. Emery read Dr. Mitchell's greatest poem, "To a Lycian Tomb."

The auxiliary held a dinner meeting in January, in the home of Mrs. Romaine Swan at Washington. Mrs. Anna Webb, of Washington, Pa., was the guest speaker, and reviewed *Constance Trescott*, one of Dr. Mitchell's best-known works.

Medical News

Engagement

MISS HELEN SMITH, of Watertown, and Dr. W. E. Kotanchik, of Williamsport.

Marriage

MISS MARY ISABEL EISENBERG, daughter of Dr. and Mrs. J. Lawrence Eisenberg, Norristown, to Harold George Shiley, Dec. 9, 1934.

Deaths

JOHN AULDE, Philadelphia; Jefferson Medical College, 1882; aged 88; died Dec. 23, 1934. Dr. Aulde was formerly demonstrator of physical diagnosis and clinical medicine, Medico-Chirurgical College of Philadelphia.

BENJAMIN F. BARTHO, Mount Carmel; College of Physicians and Surgeons, Baltimore, 1887; aged 72; died Dec. 30, 1934. Dr. Bartho was a member of the Schuylkill County Medical Society, the State Society, and a Fellow of the A. M. A.

SIMON CAMERON BOWES, Canonsburg; Western Pennsylvania Medical College, Pittsburgh, 1893; aged 70; died Dec. 17, 1934.

GEORGE BOWMAN, Irwin; University of Michigan Department of Medicine and Surgery, Ann Arbor, 1901; aged 60; died Jan. 24, in the Mercy Hospital, Pittsburgh, of pneumonia. Dr. Bowman was a member of his county and State medical societies.

WALTER LINCOLN BURRAGE, Brookline, Mass.; Harvard University Medical School, 1888; aged 74; died Jan. 26. Dr. Burrage was a very active gynecologist

about 30 years ago when he was stricken with anterior poliomyelitis involving both legs, which forced his professional retirement. Dr. Burrage was a Fellow of the A. M. A. and American Gynecological Society, and for the last 25 years was secretary of the Massachusetts State Medical Society. He was the author of several textbooks and an extensive contributor to the medical literature.

GEORGE EDGAR DEAN, Scranton; University of Pennsylvania School of Medicine, 1877; aged 81; died Jan. 12, of bronchopneumonia. Dr. Dean had been in active practice for 57 years despite physical infirmities which made him a cripple from the time he was a student in school. Having specialized since 1877 in diseases of the eye, ear, nose, and throat, he confined much of his practice to his office, but still was able to get about the city with crutches or a cane, and by specially designed controls he drove his own car. He was formerly county coroner and for 21 years was on the staff of the Lackawanna Hospital, now the State Hospital, where he died. He was a member of his county and State medical societies.

MARTHA ANNA DWYER, aged 14, only daughter of Dr. Frank P. and Mary Howell Dwyer, Renovo, died on Jan. 27, of pneumonia following a major operation performed 2 days earlier. She was president of the sophomore class of St. Josephs High School, leader of the school orchestra and the Girl Scouts, and a talented musician. She is survived by her parents and 2 brothers.

DANIEL HUNT FULLER, Brookline (Del. Co.); Harvard University Medical School, 1891; aged 70; died Jan. 31. Dr. Fuller was born in Providence, R. I. He received his A.B. degree from Brown University in 1886 and his A.M. degree from the same university in 1899. He had been medical director of the Pennsylvania Hospital for Mental and Nervous Diseases, Philadelphia, since 1914. He was also chief of the clinic for mental and nervous diseases in the outpatient department of the Pennsylvania Hospital. His practice was exclusively limited to neurology and psychiatry. He was a member of his county and State societies; a Fellow of the A. M. A.; a member of the American Psychiatric Association, and the New England Society of Psychiatry.

ARTHUR HARTLEY, Philadelphia; Hahnemann Medical College, 1898; aged 62; died Feb. 10, at the Hahnemann Hospital from heart disease.

Dr. Hartley was born in Philadelphia, July 25, 1872, and attended Farnum Preparatory School, Beverly, N. J. For the past several years he has been professor of applied anatomy and associate professor of surgery at Hahnemann Medical College, having been on the surgical service at Hahnemann Hospital from the time of his graduation. He was also visiting surgeon to the Women's Homeopathic Hospital and Children's Homeopathic Hospital, and consulting surgeon to the Delaware County Hospital.

During the World War he served in the Medical Corps of the United States Army and was assigned as medical instructor at Fort Oglethorpe, Ga., and served in France from August, 1918, to June, 1919, being commanding officer of a field hospital, and later commander of the 7th Sanitary Train, 7th Division.

He is survived by his widow, Dr. Harriet L. Hartley, 2 brothers, one of whom is Dr. Harry Hartley, of Ardmore, and 3 sisters, one of whom is Dr. Harriet Hartley Weaver, of Philadelphia.

MINTA PROCTOR KEMP, Philadelphia; University of Michigan Medical School, Ann Arbor, 1900; member of his county and State medical societies; aged 59; on the staff of the Friends Hospital, where he died, Dec. 29, 1934, of carcinoma of the liver.

WILLIAM S. KIMMEL, Uniontown; Medico-Chirurgical College of Philadelphia, 1901; aged 65; died Nov. 21, 1934, of paralysis agitans. Dr. Kimmel was a

former member of his county and State medical societies and a Fellow of the A. M. A.

CHAUNCEY ELDER KIRK, Pittsburgh; Western Pennsylvania Medical College, Pittsburgh, 1894; aged 63; died Dec. 29, 1934, of chronic nephritis and uremia.

FRANK M. McCLELLAND, Franklin; Western Reserve University School of Medicine, Cleveland, 1887; aged 75; died Feb. 4.

CHARLES S. MEANS, Towanda; Jefferson Medical College, 1883; aged 72; died at his home in Towanda, Feb. 19. Dr. Means spent his early life in Philadelphia. He was on the staff of St. Agnes Hospital for 3 years. He was a former member of the City Council and introduced a bill making it compulsory for diphtheria immunization. He left Philadelphia about 32 years ago to enter practice at Towanda. He is survived by his wife, 4 sons, and a daughter.

JOSEPH P. MORRIS, St. Clair; Jefferson Medical College, 1896; aged 61; died Dec. 2, 1934. Dr. Morris was a member of his county and State medical societies.

JOHN ANTHONY REGAN, Scranton; Chicago Medical School, 1934; aged 30; died Dec. 27, 1934, in the Scranton State Hospital, of diabetes mellitus.

ALVIN Z. STONER, Bedford; University of Pittsburgh School of Medicine, 1912; aged 48; died suddenly, Feb. 23, while visiting a patient. Dr. Stoner served in France as a major in the Medical Corps during the World War. He was a member of his county and State medical societies.

DAVID WILLIAM VAUX, Pittsburgh; University of Pittsburgh School of Medicine, 1905; aged 61; died Jan. 29. Dr. Vaux made a specialty of obstetrics and was a member of his county and State societies and a Fellow of the A. M. A.

BERNARD C. ZALL, Philadelphia; Medico-Chirurgical College of Philadelphia, 1909; aged 54; died Dec. 22, 1934. Dr. Zall was a member of his county and State medical societies and a Fellow of the A. M. A.

Miscellaneous

THE CARDIAC CLINICS in the Temple University Hospital have been approved by the Philadelphia Heart Association.

DR. ELLA N. RITTER, of Williamsport, fell and fractured her hip recently while engaged in her professional rounds.

DR. PAUL A. ROTHFUSS, of Williamsport, has been appointed Deputy Secretary of Health of Pennsylvania by Governor Earle.

DR. AND MRS. DELORME T. FORDYCE, of Conshohocken, announce the adoption of an infant child. It has been named William DeLorme Fordyce.

DR. FRED B. WILSON, Beaver, was reelected president of the Beaver County Tuberculosis Association for the third consecutive year.

THE MEDICAL ALUMNI ASSOCIATION of Temple University held its Annual Mid-Winter Smoker on Feb. 2, at the Penn Athletic Club, Philadelphia.

THE ANNUAL MEETING of the Philadelphia Alumni Society, Medical Department, University of Pennsylvania, was held Feb. 16, at the Penn Athletic Club.

DR. JOHN M. FISHER has been elected president of the Physicians' Aid Association of the Philadelphia County Medical Society, and Dr. Francis Heed Adler, secretary.

THE SECRETARY of the staff of the Center County Hospital, Bellefonte, Pa., has notified the JOURNAL office that Dr. Enoch H. Adams is not surgeon-in-chief to the Center County Hospital as was erroneously reported in the December, 1934, issue of the JOURNAL.

IN A RECENT SURVEY of net incomes of the doctors in Rhode Island for the years 1932-1933 it may be of interest to know the survey showed that the average loss in the net income of physicians and surgeons in Rhode Island in 1933 as compared with 1932 was 21.7 per cent.

DRS. T. GRIER MILLER, Richard A. Kern, and Charles C. Wolferth have been advanced from assistant professors in medicine at the University of Pennsylvania Medical School to clinical professors in medicine and Dr. Truman G. Schnabel has been advanced from assistant professor to associate professor of medicine.

WILLIAM ERSNER, D.D.S., a member of the staff at the Mount Sinai Hospital, will deliver the seventh of a series of 9 health talks being given at the Mount Sinai Hospital, located at Fifth and Reed Sts., Philadelphia, Pa., on Wednesday, March 27, at 8:30 p.m. The subject of his lecture will be "How Teeth Affect Your Health."

THE PHILADELPHIA NEUROLOGICAL SOCIETY celebrated its fiftieth anniversary, Jan. 22, with a meeting at the College of Physicians of Philadelphia. Dr. William G. Spiller read a paper on "Fifty Years of Psychiatry," and Dr. Charles H. Frazier read one on "Neurosurgical Activities of Members of the Philadelphia Neurological Society."

THE ANNUAL GUEST MEETING of the Obstetrical Society of Philadelphia was held Feb. 7, the speaker being Dr. Edward P. Davis, emeritus professor of obstetrics, Jefferson Medical College, who delivered an address on "Retrospect, Circumspect, and Prospect." Preceding the meeting the retiring president, Dr. Norris W. Vaux, tendered Dr. Davis a dinner at the Philadelphia Club.

ACCORDING TO NEWSPAPER REPORTS, Mrs. Henrietta Dallas Pepper, a great-great-granddaughter of Benjamin Franklin, left the greater part of her \$200,000 estate to the Pennsylvania Hospital, Philadelphia, to establish a ward "for persons of gentle birth but unable to pay." The ward is to be a memorial to her husband, John W. Pepper, who died in 1918. Mrs. Pepper died on Dec. 23, 1934.

THE MAN AT THE STEERING WHEEL knows the hazards of sleet-storm driving—and particularly the "low visibility" of ice-encrusted windshields. There are many devices available to avoid this fearful distraction to driving. Heating gadgets, soap sticks, glycerine pastes, and even the warm anti-freeze fluid from the radiator has been known to help a bit in emergency. But the recent recommendation of a Jersey gasoliner was to half-split a succulent onion in the raw, and to rub the juice therefrom over the glass. Accordingly, so was it done—and the rural remedy worked like a miracle—fully justifying the ruminating rustic's wisecrack that "an onion always make ice water."—*American Journal Pharmacy*, Jan., 1935.

A NOTE on the secretary's message to members of the Fort Wayne Medical Society is interesting and timely. At a recent meeting of the society, a paper dealing with the mortality factors in acute appendicitis was presented by an out-of-town speaker. One doctor had driven 40 miles to hear the paper, and after the meeting he remarked to the secretary that the small attendance at the meeting was another factor in the mortality rate! The secretary in his message then called attention to the fact that the money of the members is being spent to bring the newest medical thoughts, presented by able men, to members of the society, and it is distinctly up to the members to see that they get their money's worth.—Editorial, *Jour. Indiana State Med. Ass'n*.

THE THIRTEENTH ANNUAL MEETING of the International Association for Dental Research—now consisting of 26 sections in 8 nations—will be held on March 16 and 17, 1935, at the Hotel Stevens in Chicago, in coordination with the annual meeting of the American Association of Dental Schools on March 18, 19, and 20. Papers on research in dentistry and allied fields will be

presented chiefly by workers in laboratories and clinics of dental and medical schools in North America and Europe. Each session will be open to all who may be interested. Copies of the official program may be obtained, after March 6, at the office of the Secretary, International Association for Dental Research, 632 West 168th St., New York City.

THE ANNUAL MEETING of the American Association on Mental Deficiency will be held at the Hotel Palmer, Chicago, on April 25, 26, and 27. The Thursday and Friday sessions will be devoted to studies on Mongolism; Birth Injury as an Etiological Factor in Mental Deficiency; Mental Disorders in Mental Deficiency; The Problem of Sterilization; Defective Delinquency and its Relation to Penal Institutions; Community Supervision of the Paroled Mental Defective; and Newer Methods in Institutional Training for Community Life. The Saturday session, on April 27, will be devoted to the sociologic, psychologic, and the special educational aspects of mental deficiency. Physicians are cordially invited to attend these sessions. Complete data on the program may be obtained from the secretary, Dr. Groves B. Smith, Godfrey, Illinois.

THE MERCY HOSPITAL STAFF, Wilkes-Barre, Pa., will hold a postgraduate conference on March 28, 1935, at the Mercy Hospital. Medical papers will be read by Drs. James B. Purcell, Joseph V. Connole, and D. F. Daley of Wilkes-Barre. The guest speakers will speak on the following subjects:

Dr. P. F. Lucchesi, Philadelphia, "Scarlet Fever."
Dr. Elliott P. Joslin, Boston, Mass., "The Treatment of Diabetes."

Dr. John F. Erdmann, New York City, "Tumors of the Breast."

Dr. John Cooke Hirst, Philadelphia, "Active Versus Conservative Management of Planned Deliveries."

A series of scientific exhibits will be demonstrated by Drs. A. L. Luchi, F. P. Judge, J. M. Nealon, J. R. Nealon, D. F. Daley, and by the dietetic department of the Mercy Hospital.

The committee in charge of the arrangements of this conference is composed of the following: Drs. J. J. McHugh, P. F. McHugh, A. R. Feinberg, F. M. Pugliese, and F. R. Hanlon.

All members of the State Society are cordially invited to attend the conference and the luncheon. The committee in charge would appreciate receiving notification from those planning to attend in order that proper arrangements may be made to entertain them.

THE AMERICAN Neisserian Medical Society was founded on June 12, 1934. It is dedicated to the promotion of knowledge in all that relates to the gonococcus and gonococcal infections, that there may be attained improvement in the management of gonorrhea and a reduction in its prevalence. There are 115 charter members and the officers comprising the Executive Committee are: Dr. Edward L. Keyes, New York, honorary president; Dr. J. Dellinger Barney, Boston, president; Dr. P. S. Pelouze, Philadelphia, vice-president; Dr. A. L. Clark, Oklahoma City, Okla.; Dr. Walter Clarke, New York City; Dr. R. D. Herrold, Chicago; Dr. N. A. Nelson, Boston; and Dr. Oscar F. Cox, Jr., Boston, secretary-treasurer.

The society plans to carry out the following program: The scrutiny of the management of gonorrhea in both male and female; clinical and laboratory research in the diagnosis, medical and social pathology, and the treatment of gonorrhea; and dissemination among the medical profession and the public of authoritative information concerning gonorrhea.

Membership is limited to: Residents of the United States or its territories, Canada, or Mexico; graduates of a medical school recognized by the American Medical Association; and those who are engaged in some phase of the management of gonorrhea.

An invitation to membership is extended to all qualified physicians who desire to work for improvement in

the management of gonorrhea. Application blanks can be obtained from Oscar F. Cox, Jr., M.D., Secretary, 475 Commonwealth Ave., Boston, Mass.

Book Reviews

From a reviewer we expect information and advice which will guide us safely and to our profit, warning us of the poor, the mediocre, the commonplace, and inviting our attention to merit.

HEALTHY BABIES ARE HAPPY BABIES. Josephine Hemenway Kenyon, M.D. Boston: Little, Brown & Company, 1934. Price \$1.50.

This is a practical handbook on the care and training of children to age 3. It is planned as an adjunct to the family physician or the pediatrician. Mothers should find it dependable and easy to consult.

GOOD FOOD AT LOW COST. R. T. Devereux, M.D., West Chester, Pa. The Chester County Medical Society, 1934. Price 20c postpaid.

This volume has grown out of the nutrition program of the Chester County Emergency Child Health Committee. More than 150 sources were consulted in the attempt to make this booklet complete. It combines recipes and menus with an explanation of the essential foods and the methods for their purchase and preparation.

If the household food budget must be reduced, it is very easy to cut at the wrong place and to suffer thereby. Housewives who carefully use this little book will not be likely to make that mistake.

NURSING SCHOOLS TODAY AND TOMORROW. The Nursing Information Bureau of the A. N. A., 50 West 50th St., New York City. Price, \$2.00.

This constitutes the final report of the Committee on the Grading of Nursing Schools.

AN ACTIVITY ANALYSIS OF NURSING. The Nursing Information Bureau of the A. N. A., 50 West 50th St., New York City. Price, \$2.00.

The material in this book emanated from the study made by the Committee on the Grading of Nurses Schools. The volume is offered as a study of the subject rather than an exhaustive treatise.

BENIGN, ENCAPSULATED TUMORS IN THE LATERAL VENTRICLES OF THE BRAIN. Walter E. Dandy, M.D., adjunct professor of surgery, Johns Hopkins University. The Williams & Wilkins Company, Baltimore. Price, \$4.50.

This book is devoted to diagnosis and treatment, and discusses effectually the topic, as would be expected of so distinguished an authority. All curable tumors covered by the title "should be given the maximum opportunities afforded by surgical treatment—which offers the sole prospect of cure or even transient benefit."

AIDS TO EMBRYOLOGY. Richard H. Hunter, M.D., M.Ch., Ph.D., M.R.I.A., lecturer in anatomy, Queen's University, Belfast. Baltimore: William Wood & Company, 1934. Price, \$1.25.

This is the second edition of a satisfactorily abridged aid to embryology.

STANDARD CLASSIFIED NOMENCLATURE OF DISEASE. Edited by H. B. Logie, M.D., C.M., Executive Secretary. New York: The Commonwealth Fund, 41 East 57th Street.

This is a very efficient compilation of a standard classified nomenclature of disease, which classification should be universally adopted. It is "only by means of

(Concluded on page xiv.)



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BOOK REVIEWS

(Concluded from page 464.)

this broad collaboration that uniformity of diagnostic terminology can be maintained."

A SYNOPSIS OF MEDICINE. Henry Letheby Tidy, M.A., M.D., B.Ch. (Oxon.), F.R.C.P. (Lond.), physician to St. Thomas' Hospital, etc. Baltimore: William Wood and Company, 1934. Price, \$6.

This is the sixth edition of this volume which constitutes a valuable quick reference for diseases. It is recommended as a very efficient synopsis.

THAT HEART OF YOURS. S. Calvin Smith, M.D., Sc.D., author of *Heart Affections—Their Recognition and Treatment*; *Heart Records—Their Interpretation and Preparation*; *How Is Your Heart?* New York and London: J. P. Lippincott Company. Price, \$2 net.

A book full of favorable information for the lay person, written in an easily readable style. The optimism expressed may be considered as an excellent adjunct in the management and treatment of cardiovascular diseases. This is a result of the work of a well-informed author. The facts concerning rheumatic heart disease are exceptionally valuable and will be of great aid to

those physicians who wish to permit the parents of rheumatic children to acquaint themselves with this devastating and yet often preventable malady. The author should be highly commended for his praiseworthy and successful efforts. This book should be in every home where a heart affliction exists or is feared.

GYNECOLOGY. Brooke M. Anspach, M.D., professor of gynecology, Jefferson Medical College. Fifth edition reillustrated, reset, and completely revised by the author. 679 illustrations, of which 10 are in colors. Philadelphia, London, and Montreal: J. B. Lippincott Company.

This is the Fifth Edition of this textbook, which very satisfactorily discusses the latest concepts of the all-important relationship of endocrinology to gynecology. More and more the practitioner must realize the import of gynecic functional disturbance due in the main to endocrine dysfunction: necessarily he also must have a broader understanding of organotherapy. These features are efficiently amplified.

The book is rewritten in many places to bring the text up to date.

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SOME DISEASES OF THE ORAL MUCOSA*

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The diagnosis of diseases of the oral mucosa in general is somewhat more difficult than that of diseases of the skin. Although it is true that many inflammatory lesions of the skin and oral mucosa are essentially the same their clinical appearance is often quite different. This is due to maceration of the horny layer from saliva, which interferes with its translucency and which causes vesicular or bullous lesions to rupture easily.

Lesions of the mouth may be helpful in the diagnosis of skin diseases though the opposite is more apt to be the case. Examples of mouth lesions which are of diagnostic aid in systemic diseases are Koplik's spots in measles, the strawberry tongue in scarlatina, the bald tongue in pellagra, glossitis in pernicious anemia, pustules in variola, mucous patches in syphilis, ulcerations in agranulocytic angina, and hemorrhages in scurvy and purpura hemorrhagica.

This discussion will be limited to a few diseases of the mouth of dermatologic interest. In the provisional nomenclature of the American Dermatological Association as mentioned by Traub there are over 100 diseases of the skin (approximately 50 per cent) which may exhibit lesions of the mucous membranes of the mouth. To this list could be added many more local affections which are also seen and treated by the dermatologist. The more important subjects of syphilis and cancer, about which so much has been written, will be omitted as will also tumors of the mouth, which have been so ably described by Bedford Shelmire.

It is convenient to divide diseases of the mouth into those which are part of a systemic affection and those which are local.

SYSTEMIC DISEASES OF THE ORAL MUCOSA

Lichen planus is a disease of the skin which produces lesions of the mouth in perhaps one-

third of the cases. Lichen planus of the skin is usually recognized without difficulty, as not only the clinical but also the histological appearance is characteristic. The ordinary type of the disease is essentially harmless as it eventually disappears spontaneously, is not followed by sequelae, and seldom recurs.

Lichen planus of the mouth may precede the cutaneous eruption, possibly more often than is supposed. At any rate it is usually not noticed until the skin lesions appear, as the disease in the mouth rarely causes any subjective symptoms and disappears without local treatment. The clinical diagnosis of oral lesions is often thought to be difficult even by dermatologists. This is usually easy, but if desired can be confirmed by histologic examination. The mouth lesions appear as tiny grayish dots, streaks, circles, and a combination of these forms giving a reticulated appearance. Ordinarily there is little or no appreciable infiltration and never any ulceration. The diagnosis becomes difficult only when the lesions coalesce and form a diffuse area as seen on the dorsum of the tongue. The eruption occurs most often on the mucosa of the cheeks, opposite the molars and along the interdental cleft, and next in frequency on the dorsum of the tongue. In Trautmann's series of 157 collected cases the lesions were present on the cheeks in 82 per cent.

Lichen planus may at times be confined to the mouth for months or years without the outbreak of cutaneous lesions. In my reported series of 10 such cases the disease had been present in 1 case, with exacerbations and partial remissions, for 8 years. In 4 cases the diagnosis was confirmed histologically. In Trautmann's series there were 26 cases in which the mouth alone was involved. Seven similar ones were reported by Jacob in a series of 179 cases. The duration of the disease when confined to the mouth is usually long, the average in my cases

*Read before the Section on Dermatology of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 3, 1934.

having been 4 years. Treatment is usually very unsatisfactory. The chief point of interest in lichen planus of the mouth is the differential diagnosis from leukoplakia, which is a disease of great importance. The differentiation will be discussed later.

Lupus erythematosus of the common fixed type when affecting the skin may be very easy to recognize. In many cases, however, the diagnosis of cutaneous lesions is extremely difficult if one reads the transactions of dermatologic societies and notes the number of times lupus erythematosus is mentioned as a possible diagnosis. If this is true of skin lesions the difficulty in the diagnosis of mouth lesions of this disease is infinitely greater. Involvement of the vermilion border is an aid to the proper diagnosis. My experience has been that when the disease occurs in the mouth alone the clinical diagnosis can be only presumptive. As opposed to this opinion is the statement of the late Dr. Fordyce, who remarked that "lesions in the mouth are sometimes very typical and help to clear up an obscure skin diagnosis."

Lupus erythematosus of the mouth is seen most frequently in the cheek pouches, often close to the molars. It is described as being well-defined, with bluish or red raised border and slightly depressed center which is eroded. Later the center may present grayish or whitish points or streaks. The most striking feature is the sharply delimited border and irregular shape. I have seen no lesions which appeared to be ulcerated. Treatment by intravenous injections of gold salts is of value, though less satisfactory than in the case of cutaneous lesions.

Pemphigus vulgaris is the most important one of the various diseases in which vesicles and bullae appear in the mouth. It is rare to see unruptured bullae in the mouth, the lesions being broken soon after their formation through maceration.

The diagnosis of common pemphigus is at times difficult, though great assistance is given by the phytopharmacologic test of Pels and Macht. With the exception of this test, which is rapidly passing the experimental stage, there is no clinical sign or laboratory procedure upon which an absolutely positive diagnosis can be made. As observed in New York, the disease occurs most frequently in adult Jews, especially those who have emigrated from certain parts of Europe. The late Jay F. Schamberg remarked that pemphigus occurs especially in foreign-born Jews who have suffered great deprivations in early life. The cause of this terrible disease is still unknown and its treatment has been entirely

unavailing. The hope of benefit from the treatment advocated by Davis and Davis has long been abandoned. I have also failed to get results with large doses of viosterol, the method suggested by John B. Ludy. In a personal communication, Dr. Ludy recently stated that 6 out of 8 of his patients treated by this method were living and apparently free of the disease. Even if these cases are only arrested the results are striking. In a few cases at Bellevue Hospital in which methylene blue has been used as suggested by the experimental work of Pels, the results have been unsuccessful.

The mouth lesions of pemphigus are of special interest as they may precede the cutaneous eruption by months or even years. All parts of the mouth may be affected, the lesions appearing as raw, painful red patches partly covered by shreds of epidermis. In some of these cases the organisms of Vincent's angina are found and represent merely a secondary infection. When the lesions of the mouth are profuse they cause great suffering and interfere with proper nourishment. A sore mouth, however, does not always account for the considerable loss of weight which may occur early in the disease. Patients in whom the mouth lesions were not especially numerous, have lost 20 to 30 pounds in a month or 6 weeks. Local remedies for the relief of these lesions are not very satisfactory. Nothing seems to be better than the time-honored tincture of myrrh and boric-acid mouth wash.

Erythema multiforme and Duhring's disease may be accompanied by bullous lesions in the mouth, and both affections may be confused with pemphigus. The presence of subjective symptoms, erythema, and its rapid course are indicative of erythema multiforme. Although bullae do occur in the mouth in Duhring's disease, this is decidedly infrequent. The presence of intensive itching in a bullous disease almost certainly excludes pemphigus, which is essentially a non-pruritic disease. At the present time I have a patient in the last stages of pemphigus who has occasionally produced severe excoriations in her delirium. Scratching of this type, however, is foreign to the picture of pemphigus in its earlier stages.

Bullous eruptions in the mouth as well as on the skin have been known to follow the parenteral administration of foreign proteins, as pointed out by Mook.

Herpes simplex may involve the buccal mucosa, usually by extension from the vermilion border of the lips. It is an uncommon affection unless aphthous ulcers are considered to be a form of intra-oral herpes. Herpes zoster of the



FIG. 1. ERYTHEMA MULTIFORME

mouth is rare and occurs only if there is involvement of the second division of the fifth nerve. In such a case the disease may affect one side of the tongue, the mucous surface of the cheeks, the palate, the tonsil, and even the pharynx and larynx. The most severe case of herpes zoster I ever saw was one of this type. The patient not only had an eruption in the mouth and on the cutaneous surface of the cheek but was profoundly ill with a swollen tongue, constant dribbling of saliva, high fever, delirium, a heart murmur, and a generalized petechial rash. She made a perfect recovery, however, except for some deforming scars on the cheek.

Both urticaria and angioneurotic edema may affect the mucous membrane of the mouth. Angioneurotic edema is a circumscribed swelling, attaining its maximum size in a few minutes or, less often, in an hour or so and disappearing in 1 or 2 days. It may occur upon any part of the body but is seen most often about the lips. The tongue may be affected and, what is most important, the glottis. The possibility of sudden death from edema of the glottis makes this an important disease; fortunately, it is rare. Bullock collected records of 170 cases with 20 per

cent of deaths from edema of the glottis. Treatment of an attack requires injections of epinephrine.

Purpura of both skin and mucous membranes is easily recognized by the fact that it does not disappear upon pressure. The color also remains after death. The term purpura hemorrhagica is a poor one for the disease that is now known as thrombocytopenic purpura. Simple purpura or extravasation of blood into the skin or mucous membranes is often spoken of carelessly as purpura hemorrhagica, a disease in which there is free blood in one or more of the orifices of the body. It is in this type of primary purpura that the blood platelets are reduced, as low at times as 1000 per cmm., according to Duke. The bleeding time is increased and the clot fails to retract and express serum as it normally should.

Tuberculosis of the oral cavity is usually secondary to tuberculosis of the lungs or larynx, or is due to extension by contiguity of lupus vulgaris of the nose. Primary tuberculosis of the tongue is decidedly rare. Tuberculous ulcers of the mouth occur upon the tongue, cheeks, and lips. They are single or multiple, soft, rather superficial, bleed easily, are painful as a rule, and show no tendency to heal. The differentiation from syphilis and carcinoma is made by finding the bacilli in smears or by animal inoculations. Lupus vulgaris affects the skin primarily in the vast majority of cases. In a half or more of the cases the disease invades the nose and mouth. In the mouth it appears as papillomatous plaques on the cheeks, gums, and palate.

Leishmaniasis is a tropical disease prevalent in many countries south of the Rio Grande. One type differs both clinically and immunologically from the ordinary Oriental sore, which is espe-



FIG. 2. GRANULOMA PYOGENICUM

cially common in Asia Minor. The disease ordinarily begins on the skin, where it forms one or more indolent ulcers which last at times for years. Eventually in 15 to 20 per cent of the cases it attacks the nasal mucosa and may extend to the pharynx, producing severe deformities. This type of disease should be called American leishmaniasis. It should not be called espundia, which is merely one of 23 or more local names for a disease which occurs in every country of South America except Chile and in Central America and Mexico.

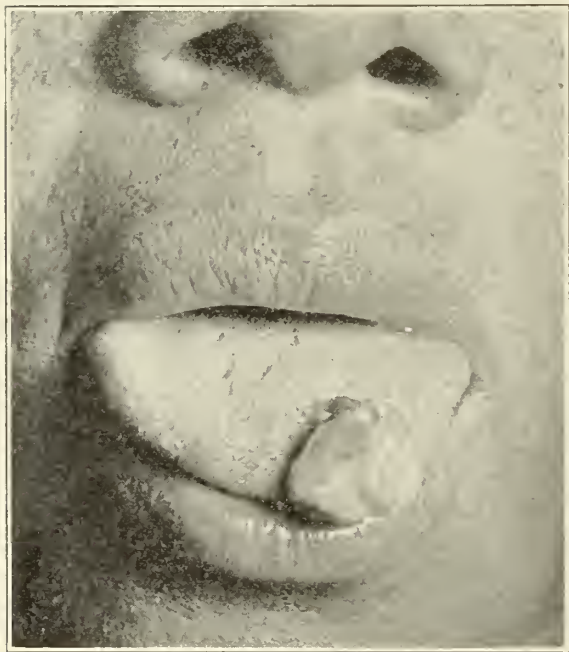


FIG. 3. GRANULOMA PYOGENICUM

LOCAL DISEASES OF THE ORAL MUCOSA

Leukoplakia buccalis is a disease of the greatest importance because of its relationship to cancer. Although the essential cause is unknown there are many factors which at least contribute to its causation. The disease is one of adult life, the average age in my reported series of 40 cases being over 48. It is much more common in men than in women, the proportion according to various statistics showing it to be from 15 to 30 times as common in men as in women. In a series of 848 cases collected from the literature by Cumston there were only 30 women. Leukoplakia is extremely rare in the full-blooded negro, almost as rare as cancer of the skin in this race. In an extensive experience with negro patients at the Harlem Hospital and in tropical countries I have encountered the disease only twice in negroes of full blood.

The relationship of syphilis to leukoplakia has

been the source of much difference of opinion. The percentage of cases in which leukoplakia has been preceded by syphilis varies from 80 per cent (Fournier) to 30 per cent (Hazen and Eichenlaub). Although the majority of authorities think that there is some relationship between the 2 diseases Hazen and Eichenlaub take the position that "syphilis represents an accidental rather than a causative factor" in leukoplakia. In my own series of cases 65 per cent had apparently suffered from syphilis, as judged by the history, the Wassermann test, or the presence of active tertiary lesions. Even the low percentage reported by Hazen and Eichenlaub is too great to ignore the possibility of some definite relationship. No one knows how syphilis apparently predisposes to leukoplakia, but all agree that leukoplakia is not an actual syphilitic lesion. Histologically it does not show any changes characteristic of syphilis, and it is not appreciably affected by any type of antisiphilitic treatment. There can be no doubt, however, that many cases occur in which a preceding infection by syphilis can be positively excluded.

The exciting cause of leukoplakia is usually some form of local irritation, especially tobacco smoke, the disease being spoken of at times as smokers' patches. In the great majority of cases there is a history of more or less inveterate smoking for long periods of time. All of the patients in my series except 2 women had used tobacco more or less, 35 of them having been habitual smokers. Max Joseph stated that he had never seen a patient with this disease who at some time had not been a smoker. There seems to be no special difference in the effects of cigarette, cigar, and pipe smoking in their relationship to leukoplakia.

The irritating effect of decayed, rough, and jagged teeth is stressed by Hazen and Eichenlaub. Too much emphasis has been placed on this source of irritation. In half of my cases, in which notes were made concerning the teeth, no special abnormality was present.

As the mouth is part of the gastro-intestinal tract it is perhaps natural that indigestion and especially overindulgence in alcohol might act as predisposing irritants to the oral mucosa. Indulgence in very hot or highly spiced foods might be considered as further exciting causes. My opinion coincides with that of DeForest, who thinks that "tobacco and syphilis must be regarded as the most important factors in etiology."

The appearance of leukoplakia varies according to its age and development. At the outset it consists of streaks or smooth, rather superficial,

grayish-white spots. Later the patches become thickened, rough, and stiff. There are usually no subjective symptoms until fissures or ulcers appear. The favorite sites are the dorsum of the tongue, the cheeks, and the commissures of the lips, though at times the palate is affected. The differentiation of leukoplakia from lichen planus of the mouth is difficult only in the early stages of the former disease. Both diseases occur most often on the dorsum of the tongue and cheek pouches, but leukoplakia is much more frequently seen at the commissures of the lips. Leukoplakia may present streaks at the outset but does not show the delicate dots and tiny circles or meshwork of lichen planus. A previous infection with syphilis and a history of habitual or excessive smoking favor the diagnosis of leukoplakia. Age and sex are also of diagnostic help.

Leukoplakia is essentially a permanent affection though it has been claimed that occasionally it disappears spontaneously. It is always a potential source of malignancy, especially when local irritation is continued. Mantilla's statistics of 566 cases collected from the literature showed that in 32 per cent cancer eventually developed.

The treatment of leukoplakia should be conservative and should consist in eliminating all possible sources of local irritation and in observing proper hygiene of the mouth. Smoking should be prohibited or reduced to a minimum. The teeth should be put in the best possible condition, irritating food should be avoided, and digestive disturbances corrected. Antisyphilitic treatment has no appreciable effect on the disease, though Maderna claims to have obtained the best results by radium when a preliminary treatment by arsphenamine had been given. The patient should be impressed with the importance of the disease and should be kept under close observation by his physician. There is no good reason for radical treatment of early lesions, and if the disease affects the greater part of the mouth its entire eradication is out of the question. When a patch shows fissures, lumps, or ulceration, however, it is time for quick and thorough treatment as this means almost surely that malignancy has developed.

The condition which was brought to the attention of the medical profession in 1896 by Dr. Fordyce and which bears his name should be spoken of as a congenital anomaly rather than a disease. According to Margolies and Weidman the affection is caused by ectopic sebaceous glands. The condition was at first thought to be rare but was found to be present in 70 per cent of 248 persons examined by these investigators. It consists of pinhead maculopapules of yellow-

ish or yellowish-white color which occur most often on the mucous membrane of the lips and cheeks. The affection rarely causes any subjective symptoms though one patient consulted me for the relief of a burning sensation in the cheeks, where many lesions were present. Another patient requested the removal of numerous lesions on the vermillion border of the lips for cosmetic reasons. My advice was not to attempt any treatment. A few patients have thought their mouth lesions might be malignant.

Granuloma pyogenicum is an essentially harmless though often annoying lesion that occurs upon any part of the body, supposedly after some break in the continuity of the skin. It is seen upon the lips and occasionally the tongue. The little tumors consist of extremely vascular granulation tissue which bleeds profusely on slight trauma. They are round or oval, vary in size from a pea to a cherry, and are reddish or purplish in color. They are easily removed by the electric cautery, but unless the base is thoroughly cauterized there is a marked tendency to recur. On more than one occasion I have felt chagrined by the recurrence of a lesion which was supposedly cauterized in a thorough manner.

Lingua geographica (also known as wandering rash, transitory benign plaques of the tongue, *etc.*) is a rather uncommon disease which is generally stated to occur most often in children. My experience coincides with that of Otto Foer-



FIG. 4. LINGUA GEOGRAPHICA

ster, who found it more common in adults of both sexes. It is a superficial inflammatory disease, occurring on the dorsum, tip, and sides of the tongue as one or more pea-sized patches which enlarge centrifugally and frequently coalesce. This causes the polycyclic or map-like appearance. The patches are red in the center and have a whitish or yellow border, which is apparently slightly elevated. The individual lesions run their course within a week or less, but by constant formation of new patches the process may continue for years. Subjective symptoms are almost always absent though their occurrence is possible, as in the case of a young girl I reported who had suffered considerable annoyance from the disease for 10 years. This patient was treated experimentally with roentgen rays, and a most gratifying result was obtained. She was given 2 treatments of fractional doses at an interval of a week and remained free of the disease for the following year and a half. As far as I am aware this was the first case to have been treated successfully by roentgen rays, Ormsby having first used radium in this disease with good results. I have since used the roentgen rays in other cases, in many of which the lesions responded to treatment.

Lingua nigra, or black hairy tongue, consists of fur-like patches which are usually blackish-brown or yellowish-brown in color and are situated on the dorsum of the tongue anterior to the circumvallate papillae. The disease is a hyperkeratosis of the filiform papillae, doubtless caused by some irritation, the deposit of pigment being secondary and due to external causes. According to Hermann Prinz the black color is primarily due to iron compounds derived from decomposition of hemoglobin deposited on the dead keratinized epithelium of the papillae. The elongated papillae, which may at times be one-fourth to one-half an inch in length, suggest the appearance of hairs and have been likened to the fur of a dog dampened with water. A negress seen at the Harlem Hospital had cut the "hairs" with scissors on several occasions, complaining that they caused a tickling sensation when in contact with the roof of her mouth. Ordinarily the disease causes no subjective symptoms and the patient may be unaware of its existence. Black tongue is apt to persist for months and even for many years. Simple curetting of the patch gives only temporary results. According to Prinz prompt relief is given in mild cases by swabbing the patch with pure hydrogen peroxide followed by application of warm physiologic salt solution. The same author claims that in the more severe cases a 10 per cent solution of salicylic acid in



FIG. 5. SCROTAL TONGUE

equal parts of alcohol and glycerine effectively dissolves the corneous papillae. This should be preceded by the peroxide and saline treatment.

Burning tongue is the expressive title given to a condition well described by Engman. In such cases there are usually no visible lesions of the tongue and there is no ascertainable cause. I have records of 16 cases of this affection, of which 11 were females and 5 males. The average age was 49 and the duration varied from 3 weeks to 6 years, averaging about 16 months. The anterior half of the tongue was affected usually at the tip or lateral aspect. In most of the patients the teeth were in good condition. Few of them were smokers. In 1 case the affection disappeared completely after cessation of smoking. Improvement in 6 cases and complete arrest of the burning sensation in 1 case followed treatment by fractional doses of roentgen rays given experimentally. It is not known whether or not the partial benefit after roentgen-ray therapy was due to mental suggestion.

The possibility of lesions of the mouth being caused by electrogalvanic discharges between dissimilar metallic dentures has been studied intensively of late by Everett S. Lain. The disorders caused in this manner, he thinks, include metallic taste, salivation, mucous patches, leukoplakia, burning tongue, etc. In 150 consecutive cases in which the offending dentures had been changed complete relief was claimed to have resulted in

56 per cent. In 1 case of possible galvanic burns seen in consultation, a marked galvanic current had been obtained by the microgalvanometer. Accordingly all fillings had been removed and cement temporarily inserted. There was no relief from this procedure, however, at the end of 2½ weeks. Lain concludes that, to avoid the effects of the electrogalvanic phenomena, manufacturing dental laboratories should produce denture materials of the same electric potentiality.

Scrotal tongue or grooved tongue, as these terms would imply, refers to furrows and ridges of varying depth due either to some preceding

glossitis or to an inherited and familial trait. The furrows are both longitudinal and transverse, and the tongue is apt to be slightly enlarged. It is red and free of coating. It causes no subjective symptoms and no interference with the sense of taste or touch. If the furrows are sufficiently deep, particles of food may become lodged in them and cause some annoyance. In congenital cases the anomaly is usually recognized by the patients, and I can recall only one patient who sought medical advice for this condition.

140 East Fifty-fourth Street.

MALIGNANT TUMORS OF THE KIDNEY*

LEO P. GIBBONS, M.D., SCRANTON, PA.

Smith and Ferris divide tumors of the kidney into 2 major groups—those in the renal pelvis and those in the cortex.

Pelvic tumors are less commonly encountered. In general they correspond to the epithelial tumors of the bladder, being derived from the same parent tissue. They may be subdivided into 2 general types—the papillary and the squamous. The former, however, may lose their typical papillary structure and become alveolar in form. Their degree of malignancy may be measured by histologic gradation of their cellular mutation. The papillary form is the less invasive and has the higher mortality rate. Squamous tumors tend to invade more extensively, even involving the blood vessels, and may be associated with distant metastases.

Incidence of these malignant renal neoplasms is reported by Hunt and Hager as being only 23 in their series of 271 cases, or about 1 in 12. Smith and Ferris include 6 such cases in their series of 38 cases. Of these 6 patients, 3 are known to be dead, 2 were not traced, and only 1 (an essentially benign papillomatous type) is known to be still living.

Cortical tumors are pathologically more important. There is no complete agreement regarding their pathogenesis—whether they are of renal or adrenal origin.

Smith and Ferris favor, with Young, the use of a generic term such as nephroma to indicate all cases of kidney tumors. They are inclined to accept the conventional classification of 2 major types: One rising from the adrenal rests, the other from renal epithelium. Of the first type there are very few examples which have been

proved unquestionably. Smith and Ferris classified 5 of their cases as arising from this source.

The second type includes several arbitrary subdivisions; namely, the papillary, composed either of clear cells or of granular cells, and the rarer alveolar carcinoma. It is to those types of cortical renal tumors that the technically incorrect label—hypernephroma—has become attached. The granular cell type is comparatively rare. In it the cells are deep staining, the cytoplasm almost homogeneous, the nuclei small and deep staining, and the cells arranged on rather heavy fibrous stalks.

The other type is the typically clear cell papillary adenocarcinoma. In these the cells are large and coarsely vacuolated so that their cytoplasm is barely recognizable except for the membrane outlining it. The nuclei tend to be larger, often with a well-defined nucleolus and definitely recognizable strands and granules of chromatin. The stroma is a delicate stalk composed of capillary vessels and a few supporting connective tissue strands. The lumina of the acini frequently contain a homogeneous, pink-staining, colloid-like material.

These tumors are apt to be extremely vascular, with many areas of necrosis. They may measure 10 to 20 cm. in diameter. Unlike the adrenal type, they are not definitely encapsulated and may often infiltrate not only the kidney substance but the surrounding tissue as well.

Clinically, the symptoms present in the 26 cases were: Pain in 24; hematuria in 15; the presence of a subjectively recognized tumor in 6. Duration of symptoms varied from 8 days to 17 years, averaging around several weeks or months.

One further major type of tumor remains—the embryonal tumors, occurring almost entirely

* Read before the Section on Urology of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 3, 1934.

in the first decade of life and often spoken of as sarcoma, adenosarcoma, adenomyosarcoma, or mixed tumors of the kidney.

Gottesman and Perla define hypernephromas as those neoplasms of the kidney or of the suprarenal gland that are yellowish and vascular, that show a tendency toward hemorrhage, necrosis, and cyst formation, and that microscopically resemble in some areas the structure of the suprarenal cortex. In their opinion much of the confusion in nomenclature has arisen from attempts to limit the criteria of hypernephromas to the tumors presenting the characteristic microscopic resemblance to the suprarenal cortical tissue. They report on a series of 26 cases, 19 of which were studied at necropsy, the other 7 being diagnosed pathologically by the examination of excised tissue. All types of histologic variations were found to occur in the same tumors—as a cortical adenoma, a typical hypernephroma, papillary and adenomatous forms, and highly malignant carcinoma and sarcoma-like infiltrations. Likewise all gradations from a benign structure to a malignant hypernephroma were found in the same tumor.

Comparative studies indicate to Gottesman and Perla the histogenetic development of a hypernephroma from cortical aberrant tissue. Cortical suprarenal rests in the kidney may grow into benign adenomas which may become malignant at any time if left in the patient. This development and subsequent metastatic dissemination proceeds at a variable rate.

Hunt and Hager follow much the same classification for kidney neoplasms as Smith and Ferris. Malignant types are divided into 2 groups—those originating in the renal cortex, and those originating in the renal pelvis. From an anatomic and clinical standpoint, they recognize 3 solid malignant growths of the cortex: So-called hypernephroma or adenocarcinoma, alveolar carcinoma, and sarcoma.

Robertson and Broders, cited by Hunt and Hager, recognize only 1 form of carcinoma and include all the solid epithelial tumors in the group of adenocarcinoma. They believe that the only difference between the 2 is in the degree of cellular differentiation. The so-called hypernephroma may, in these circumstances, present either the adenocarcinomatous or the alveolar carcinomatous picture. That representing the acinose formation is more differentiated and less malignant than the one that presents the alveolar formation; the latter is less differentiated and, therefore, more malignant.

Hunt and Hager hold that such interpretation need not detract from the clinical differentiation

of the 2, for there is in the latter group of so-called alveolar carcinomas a history of rapid growth with pain or hematuria of relatively short duration.

In cases of so-called hypernephroma or adenocarcinoma, there are slow growth and relatively late appearance of hematuria and subjective symptoms.

Incidence of these types in a series of 271 cases was 225 of adenocarcinoma, 10 of sarcoma, 23 of epithelioma of the renal pelvis, and 13 of malignant tumors in children.

Graham states that hypernephroma is the kidney tumor most frequently encountered. Second in order of frequency are the carcinomata, which may arise either from tubular or glandular epithelium or from the pelvic mucosa. The other types are the mixed tumors of childhood and miscellaneous groups such as extrarenal tumors, fibromata, retroperitoneal neoplasms, *etc.*

Sarcoma of the kidney in the adult is comparatively rare; in the Mayo Clinic only 28 cases were found in 570 operations for malignant tumors of the kidney.

Hematuria is present in 84 per cent to 90 per cent and is the initial symptom in 70 per cent of cases. It varies in amount. Pain is present in some form in a majority of cases, which may be dragging pain in the back or may simulate renal colic due to passing of clots down the ureter. It is found over the affected kidney in 5 per cent of cases.

A palpable tumor is found in 56 per cent of cases. Practically all cases present some of the above symptoms.

The outstanding diagnostic sign of renal tumor is deformity in the pyelogram which occurred in 96 per cent of cases in a series by Lazarus.

The prognosis in malignant tumors of the kidney is far from encouraging but is not hopeless. The chances of cure depend on the degree of malignancy present and the extent to which it has progressed.

In 1 series of 25 cases, 24 per cent of the patients had symptoms 2 years or more before urologic examination. In another series at the Mayo Clinic the duration of symptoms before operation varied from 17 to 21½ months. This delay is a serious handicap to proper treatment and calls for closer coöperation between the patient, the general practitioner, and the urologist if the best results are to be obtained.

A thorough urologic investigation is very important if the symptoms mentioned are present and unaccounted for otherwise.

Since a deformity in the pyelogram was found in 96 per cent of cases, there is no better argu-

ment for early cystoscopy and pyelography. Neither hematuria nor pain is a contraindication to cystoscopy, but either may assist the urologist in the diagnosis.

Nephrectomy with removal of the perirenal fatty tissue and glands is the treatment of choice. This may be done in fairly well-advanced cases and should be followed by a course of deep roentgen-ray treatments.

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ABSTRACT OF DISCUSSION

MILTON I. PENTECOST (Scranton): The adult patient with renal tumor usually consults his physician for hematuria. Dr. Lee has stated that hematuria is rare in children with renal tumors, and Dr. Gibbons said that it is the first symptom in about 80 per cent of adults. It is the duty of the physician consulted to determine at once the source of that bleeding. The physician has no right to prescribe for hematuria without first making a diagnosis. It is well known that these hematurias subside, only to return at a later date. Kretschmer says that delay in diagnosis has sealed the fate of many victims. The diagnosis of malignant tumor of the kidney in the adult today is a comparatively simple procedure. First there should be an ordinary flat roentgenogram, which will give some idea of the size and shape of the kidney, the position of the kidneys, and whether or not calculus is present. That eliminates one great cause of hematuria. Next, the patient should have intravenous pyelography, which is very easily done and as a rule is sufficient. If any doubt remains, retrograde pyelography shows the characteristic deformity of the kidney pelvis which clinches the diagnosis.

LEON HERMAN (Philadelphia): I was under the impression that mixed tumor in the kidney of the adult is

one of the rarest of all pathologic lesions. A patient was referred to me with a history of hemorrhage in May of this year and pain in his right kidney. He had another hemorrhage in June, following lifting, and the mass grew rapidly. He lost 60 pounds and obviously was a very sick man on entering the hospital. The pyelogram showed a large dilated ureter, mostly filled by a solid mass. This filling defect extended below the brim of the pelvis. The upper 2 calices were dilated and formed a hydronephrosis. The lower calices were reduced to a slit and the true pelvis was entirely filled. A nephrectomy was done immediately; it was very easy. When the ureter was incised a gelatinous mass was found, probably a blood clot having undergone disorganization.

ALBERT J. BRUECKEN (Pittsburgh): We should not place too much confidence in intravenous pyelograms because they may mislead us to think there is a tumor of the kidney whereas the direct pyelogram will indicate that there is no tumor at all. It is very embarrassing to remove a kidney only to learn that there is no tumor.

DR. GIBBONS (in closing): I do not rely on intravenous pyelograms. I believe in retrograde pyelograms. The intravenous is used only if the case is indefinite or suspicious. Before any operative procedure the retrograde pyelogram is always made. A child, age 2½, was operated upon last year at the State Hospital. The tumors were pronounced by the pathologist as adenocarcinoma of the kidney. That child had no symptoms except the enlargement of the abdomen. An intravenous was given, the retrograde pyelogram made, the function proved on that side, and the tumor removed. That child is absolutely symptomless now. What the outlook is I do not know. Malignancy in any form in the kidney is very important. A review of the literature indicates that quite an advance has been made, but we should keep trying to improve. Only by coöperation from the general practitioner can these advances be made.

ELECTROCOAGULATION FOR RETINAL DETACHMENT*

Motion Picture Demonstration

LUTHER C. PETER, M.D., PHILADELPHIA

The years from 1928 to the present time have been fruitful for the cause of retinal detachment. Although Gonin worked for a quarter of a century little attention was paid to his claims until 1928, when Vogt and Sigrist confirmed his belief that closing the tear cured the retinal detachment. Since 1928 papers have been contributed in abundance to support this belief and, in addition, many modifications of the original technic have been offered. The various methods have evolved rather too rapidly during the past 5 years to test each with thoroughness, but the method which is now generally accepted as the best is a form of electrocoagulation. Three types have been offered.

Larson of Sweden used a ball electrode, .65 mm. in diameter, to coagulate the sclera and choroid. He used a weak current of 50 milliamperes and completed the operation by withdrawing the fluid through a trephine opening.

Weve of Utrecht used diathermy in the form of multiple punctures into the sclera without complete perforation, and the fluid was withdrawn through an opening made by a larger needle.

Safar of Vienna punctured the sclera with multiple needles 1½ mm. long. Which of these modifications of diathermy will eventually prevail cannot be foretold. Judging from my experience, mostly with a modification of the Safar method and to some extent with the method suggested by Weve, I believe that each of these

* Read before the Section on Eye, Ear, Nose, and Throat Diseases of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 2, 1934.

types of diathermy may be used to advantage in specially selected cases of detachment and that further experience will determine which method is best adapted to any particular case.

In order to appraise properly the value of diathermy the etiology of each case operated upon should be carefully considered. Most cases may be included in one of the following suggested groups: (1) Tumors and exudates; (2) trauma; (3) myopia; (4) atrophic changes in the vitreous body; (5) blood-vessel disease such as occurs in arteriosclerosis, nephritis, eclampsia, diabetes, *etc.*, all of which may be associated with slight trauma; and (6) local chorioretinal disease such as tuberculosis and other forms of choroiditis, proliferating retinitis, *etc.*

Eliminating tumors as unsuited for operation, in the 29 cases which I have treated by diathermy, traumatic detachments have responded most readily. Certain forms of detachment due to blood-vessel disease have proved to be the most difficult. Equally unsatisfactory for surgical treatment are cases in which vitreous bands are present and produce traction. Aphacia usually requires several operations, but ultimate success may be obtained.

Second to etiology, in obtaining results, is the time element—the length of time that detachment has existed. Although the retina can be securely replaced and visual fields may be restored wholly or in part, macular vision is not apt to return fully in detachments of more than 6 months' duration. Useful central vision, however, may be obtained in some instances of a year's separation. Return of central vision is also influenced by the extent and location of the detachment. If the macular region is seriously involved, even in recent cases, it may be impossible to restore completely central vision. On the other hand, peripheral separation of the retina may be present for a year without serious damage to the macula as shown in several cases of this type which have been operated upon with good results.

A third determining factor in recovery is the ability to find the tear and seal it. If the tear is so located that it can be surrounded by points of coagulation, the final results are good. If the tear is in or near the macular region, the outlook is poor. The special advantage of finding a hole lies in the ability to limit the field of surgery to a small area, thereby insuring a larger field of vision after reattachment. A large area of coagulation tends to limit the peripheral field. There are times, however, if no tears are found, when some limitation of the peripheral field becomes necessary in order to secure reattachment.

To seal up the tear, it should be located with accuracy. Accurate localization is an important factor in the success of diathermy. True enough, precision is a *sine qua non* if Gonin's method is used. Although great care should also be exercised in localization for diathermy, mathematical precision is not quite so important because of multiple points of coagulation which can be made to surround the tear. Accuracy yields results which indifference to details cannot approach.

Failure to find tears or spots of choroidal disease need not make one doubtful of correcting a detachment. Such cases call for a wider distribution of the coagulation points, and the visual field may be contracted somewhat thereby. Even so, one has the satisfaction of knowing that the process can be arrested and useful vision restored.

The prognosis of retinal detachment in the past has been so discouraging (1 good result in 1000 cases, as estimated by Vail in the United States) that many ophthalmologists are skeptical of any surgical procedure which is proposed. The rather low percentage of good results obtained by the Gonin method (largely because accuracy in localization is not observed) and the tedious technic of the Lindner-Guist method (with somewhat better results but far from really satisfactory) have not contributed to a hopeful outlook. As a consequence, many ophthalmologists are advising against surgery. A few, although skeptical, suggest that diathermy may be tried but they are not enthusiastic as to results—a state of mind which is not reassuring to the patient.

In estimating results there are 2 features which should receive careful consideration. Reattachment is necessarily important but the patient will value the operation in terms of restored central visual acuity. With precise technic, preceded by careful study, reattachment is the rule. Central vision, however, is predicated upon etiology, duration of the detachment, location of the tear, and—above all—the degree of macular disturbance.

In 29 unselected cases upon which I operated by the Walker unit and needles, 1 was a total failure, possibly because of faulty technic on my part. An old aphacia of long standing was a partial failure in that central vision did not improve. In a third protracted case of vascular disease the peripheral retina became reattached, but disease in the macular region continued without improvement of central vision. One other case of bilateral detachment of 2 years' standing in a diabetic also failed to show improvement in

central vision. In all other cases the results were good. Not only were peripheral fields enlarged in all instances but central vision also was improved. In most cases full central vision returned. Etiology, the time element, and location are important in prognosis. A peripheral detachment of 6 months to a year may recover useful vision whereas serious macular invasion may resist treatment even though surgery is practiced promptly after its onset. A tear in the macular region offers the greatest difficulty.

Diathermy *per se* does not increase detachments nor does it add to or hasten the complica-

tions and the unfortunate terminal stages of the disease. For this reason it should be offered to all patients suffering from detachment if the case is not manifestly hopeless. Cases should not be selected for the purpose of reporting a high average of recoveries. We should aim rather to offer to each patient the advantage to be gained by diathermy. If care is observed in preliminary study and in precise operative technic, good results may be obtained in many doubtful cases. Resulting damage to the eye is practically negative.

1930 Chestnut Street.

RETINAL DETACHMENT*

Operative Results in a Series of 22 Consecutive, Unselected Cases

B. F. BAER, JR., M.D., AND J. S. SHIPMAN, M.D., PHILADELPHIA

Although de Wecker, as far back as 1870, suggested the etiologic importance of a retinal tear in the production of detachment of the retina, it remained for Gonin to act upon the suggestion in 1923.

Gonin made an incision through the sclera and choroid overlying the tear, and the thermocautery tip, heated cherry red, was introduced through the incision and momentarily brought in contact with the torn edges of the retina, the object being to seal the tear. This method required a most accurate localization of the retinal tear, and other operators using the method were not so successful in curing detachment of the retina as was Gonin. Other operations requiring less accurate localization but with the same underlying principle, namely, the closing of the tear in the retina, were developed. Larson, Weve, Safar, Guist, and Lindner developed operations, dependent variously upon thermocauterization, chemical cauterization, or electrocoagulation for the sealing of the tears.

After a trial of these various methods at the Wills Hospital, the Safar procedure was found to be the most practical and the most successful.

PREOPERATIVE STUDY AND TREATMENT

Lindner has demonstrated most graphically the effect of a retinal tear in the production of retinal detachment. He lined the inner surface of a round glass flask with pyroxylin, filled the flask with water, and then made a small tear in

the pyroxylin lining. He demonstrated that the flask could be moved laterally or in any given direction without disturbing the pyroxylin lining; but the slightest rotation of the flask caused the lining to drift away from the inner surface of the flask. It is this feature which determines the preoperative treatment of a patient with retinal detachment.

After admission to the hospital the usual physical examinations are made. Central vision is recorded, visual fields mapped, and the eye suffering with detachment is transilluminated in order to rule out intra-ocular neoplasm. Atropine, if not contraindicated by hypertension, is instilled in the affected eye to open and keep open the pupil so as to facilitate the discovery of retinal tears and to keep the eye at rest. Pinhole goggles are worn constantly in order to prevent rotation of the eye in the orbit and thus permit the retina to settle back against the choroid. The openings through these goggles are accurately centered so that the patient can see only when looking directly forward. In order to look laterally, up or down, the patient must of necessity turn the head and not the eyes in the orbits. Since this prevents rotation of the eyes it is found that the detached retina gradually falls back in its proper position, except the area adjacent to the tear. Many tears which at first were not seen, due to the fact that they were hidden in the folds of the detachment, were then brought into view. After the goggles have been worn for a week or 10 days, operation is undertaken whether or not a tear has been lo-

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cated. If a tear has been located, the sclera overlying it is selected for the operative field. In the event of failure to locate a tear the upper and inner and the upper and outer regions of the sclera are selected, because the majority of the tears are in one or the other of these locations.

OPERATIVE TECHNIC

After the eye has been anesthetized with 4 per cent cocaine solution, a retrobulbar injection of 2 per cent novocaine is made along the superior border of the external rectus muscle. About 2 c.c. is injected. The same amount of novocaine is injected subconjunctivally over the operative field. The conjunctiva, subconjunctival tissue, and Tenon's capsule are cut through to expose widely the sclera. If one of the recti muscles overlies the operative field, it is temporarily tenotomized and reattached upon completion of the operation. The sclera having been properly exposed, it is essential that all bleeding and oozing be controlled before the application of the diathermy needles used in the Safar operation.

The success of the Safar operation depends upon the production of numerous points of electrocoagulation in the choroid, circumscribing the location of the underlying retinal tear. These areas produce points of agglutination between the choroid and the retina. Some of these needle points penetrate the retina and cause areas of coagulation in this membrane and can be demonstrated ophthalmoscopically for some time after operation.

The current used for the introduction of the needles is obtained from the ophthalmotherm, an instrument delicate enough to give a strength of about 30 ma. and also the necessary combination of a cutting and coagulating current.

The number of needles introduced depends somewhat upon the size of the rent in the retina; an average of 20 will suffice. The needles are permitted to remain in place until the desired number have been used. Then they are withdrawn and through each puncture hole subretinal fluid oozes out, permitting the retina to come in more intimate contact with the coagulated choroid. It is sometimes desirable to facilitate the escape of the subretinal fluid by posterior sclerotomy. The conjunctiva is replaced and sutured. Then both eyes are covered with occlusive dressings.

Walker has devised a type of needle much more easily handled and by virtue of being threaded it is less likely to be lost beneath the conjunctiva. He has also devised the so-called "quill" needle for production of larger openings

in the sclera to facilitate the escape of the subretinal fluid.

POSTOPERATIVE CARE

Following operation the patient is kept in bed on his back, if possible, for 2 weeks. The first dressing is not done until the second or third day, at which time atropine is instilled. The eyes are dressed daily for the rest of the stay in bed. The conjunctival sutures are removed at the end of the first week. At the end of the second week the patient is allowed out of bed, but he is given pinhole goggles to wear for another week about the hospital. At the end of this period visual fields and central visual acuity are determined. If no detachment is found the patient is discharged from the hospital but is warned not to stoop over or strain himself in any way. For the next month frequent and careful checks are made on the visual fields and refraction. If, on the contrary, the detachment is found still to persist, the patient is advised to subject himself to a second operation.

SUMMARY

Twenty-two cases are reported, all of which were operated upon for retinal detachment. Six cases had multiple trephines of the sclera with potassium hydroxide coagulation, and 3 of these 6 also had the Weve diathermy needles used in addition to the trephines. Of this group only 1 was successful and 1 improved. In 16 cases electrocoagulation was used exclusively. Of these cases 7 were successful and 3 were improved. In the 22 cases reported, 8, or 36.3 per cent, were successful, although 1 of the successful operations was done only about 6 weeks before the writing of this manuscript. There were 3 cases in which the retina remained in place 1 month, with good vision and a full field, then again became detached. These have been classified as unimproved.

Retinal tears were found in only 31.8 per cent of the cases, even though repeated and careful search was made for them. In 7 cases in which tears were located the operative results were better, 3 cases being successful and 4 unsuccessful. In the 15 cases in which a tear was not found, there were but 5 successful. We are inclined to doubt the often repeated statement that, if a tear is looked for, it will always be found. It has been demonstrated that success may be achieved in some cases in which a tear is not discovered. In cases in which tears were found no technical method for localizing these was carried out. The axis in which the tear appeared was determined and its distance from the disk in disk diameters was estimated. Eight

* SUMMARY TABLE*

Case Number	Age	Sex	Vision and approximate refraction	Duration of detachment	Retinal tears	History of injury	Type and number of operations	Recovery	Improved	Unimproved
1	18	M	5.00 5/60 Sph.	3 months	None	None	Safar 1-14-33	6/12 8-31-34	.....	.....
2	51	M	H. M. temporal side High myope	10 days	None	None	M. T. 3-21-33 M. T. and Weve needles 4-18-33	.....	Slight 6/60 5-17-34	.....
3	33	M	3/60 High myope	5 days	None	None	M. T. 3-21-33	6/9 6-20-34	.....	.....
4	38	M	6/9 Emmetropic	1 week	Yes	None	M. T. 4-25-33	.....	.....	6/60 6-6-33
5	52	M	6/60 No glasses	5 weeks	None	4 months previously	M. T. and Weve needles 5-13-33	.....	.....	H. M. only 6-6-33
6	28	M	6/60 No glasses	3 months	None	None	M. T. 8-1-33	.....	.....	6/60 8-19-34
7	49	M	6/60 High myope	2 months	None	None	M. T. 9-16-33 Safar 12-16-33 Safar 3-20-34	6/21 11-4-33	.....	1/60 4-6-34
8	49	M	6/60 High myope	1 year	None	None	Safar 9-30-33	6/21 4-10-34	.....	.....
9	48	M	2/60 Low myope	11 days	None	1 month previously	Safar 12-16-33	6/12 4-18-34	.....	.....
10	55	M	1/60 High myope	1 week	Yes	None	Safar 1-6-34	6/21 7-1-34	.....	.....
11	29	F	2/60 High myope	2 days	Yes	None	Safar 2-3-34	6/30 8-20-34	.....	.....
12	79	M	1/60 Low myope	6 weeks	None	None	Safar 2-6-34	.....	.....	L. P. only 6-6-34
13	55	M	Fingers, 1 m. Aphacia	3 weeks	None	Cataract operation 7 months	Safar 2-15-34 Safar 3-4-34	.....	.....	Fingers 1 m. 3-20-34
14	48	F	6/60 Low myope	3 weeks	None	Fall 1 month	Safar 3-28-34	6/12 4-28-34	.....	Redetachment 6/60 5-26-34
15	38	F	Fingers, 1½ ft. No glasses	1 year	None	None	Safar 3-31-34	.....	Slight 1/60 4-24-34	.....
16	50	F	3/60 Moderate myope	6 weeks	Yes	None	Safar 5-2-34	6/12 8-28-34	.....	.....
17	56	M	H. M. Moderate myope	6 months	None	None	Safar 5-26-34 Walker 7-2-34	.....	Slight 2/60 8-21-34	.....
18	68	M	H. M. 2½ ft. High hyp.	1 year	None	None	Walker 5-29-34 Safar 6-26-34	.....	6/60 8-25-34	.....
19	60	M	H. M. High myope	1 year	None	None	Walker 6-12-34 Walker 7-31-34	.....	.....	L. P. only 8-30-34
20	64	M	5/60 No glasses	2 weeks	Yes	None	Walker 6-5-34 Walker 7-17-34	6/21 6-25-34	.....	Redetachment 5/60 8-1-34
21	60	F	Illiterate	3 months	Yes	Cataract operation 4 months	Walker 8-14-34	.....	.....	Complete failure
22	60	M	5/60 Low myope	1 month	Yes	None	Walker 8-13-34	6/15 9-14-34	.....	.....

* All cases were reported in detail but in order to conserve space and time this compact and brief table is given.

mm. were allowed from the limbus for the ciliary body. Then we worked from this distance back to the tear. In all cases in which a tear was seen and an attempt was made to circumscribe it, the attempt was successful. This was proved by looking into the eye with the ophthalmoscope after the operation.

CONCLUSIONS

In cases of retinal detachment any improvement by operation compares favorably with non-

operative treatment, which has been hopeless.

The results obtained in the cases reported is our justification for continuing to operate for retinal detachment. Electrocoagulation with either the Safar or Walker needles offers the best hope for a successful result.

It is not unreasonable to expect a considerably higher percentage of successes in favorable cases which have been selected. With further practice in technic and with more wisdom in the

selection of cases, failures will become increasingly less frequent.

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ABSTRACT OF DISCUSSION

SOLON L. RHODE (Reading): Among the great multiplicity of methods and devices developed during the past few years for the treatment of detachment of the retina, some form of diathermy or electrocoagulation seems best. Will the cases that are now reported as cured remain cured, or will detachment recur? Will detachments in other areas take place subsequently? What degree of damage to the economy of the eye produced through the heat generated by the use of this modality, possibly not immediately apparent, will eventually make itself manifest?

In spite of the lack of proper proof of permanency of cure there are, however, still too many ophthalmic surgeons who do not believe that any interference should be attempted in this condition. Even though visual improvement could be obtained for only a few years, such intervention would be far better than the inactivity which hopes for a spontaneous reattachment.

The question of the tear and its closure has brought forth a good deal of controversy. With the Walker method of micropuncture it is not so essential to project its exact position on the sclera, because the entire area of the detachment is surrounded by a barrage of needles. Dunnington and Macnie, in a series of 150 cases reported at the last meeting of the American Academy of Ophthalmology and Otolaryngology, stated that their results were almost as good in those cases in which no holes were found preoperatively as they were in those with known rents. Their best results, however, were obtained by the Lindner-Guist method.

Coppez, in the *Archives d'ophtalmologie* of September, 1933, abstracted by Marlow in the current *American Archives*, lists a number of conditions which operations for detachment of the retina must fulfill. These may be well worth citing here: The procedure must be easy and available to most practitioners; it must be applicable to the largest number of detachments; the choroiditis produced must always be of the same degree; the operation should involve mainly, if not entirely, the choroid alone; it must close, or at least exclude, the tear; the subretinal fluid must escape during or at the end of the operation, and its escape must continue for several days thereafter; the operation should not only be curative but preventive as well; the operation should be such that it can be repeated in a short time.

Coppez believes that these conditions are all best fulfilled by diathermy under the control of a pyrometric electrode which he has devised for the exact measurement of dosage.

EDMUND D. SPAETH (Philadelphia): It is important to discuss the microscopic, physiologic, and ophthalmologic state of the retina after a successful operation. By success is meant a reattachment of the retina and some return toward the normal of form and color fields, and central vision. Naturally, those cases with frank macular disease must be excluded in discussing a return toward central vision. Cases with posterior macular detachment are unsatisfactory at the best, both surgically as well as in a consideration of end results.

Anatomically, detachment develops between the outer-

most limits of the rods and cones, and the epithelial layer, *i. e.*, the layer of pigment epithelium. This region of separation is that same space (if it can be called a space) through which nourishment, by osmosis, normally reaches the outermost layers of the retina. It is quite possible that even in the presence of a detachment these rods and cones continue to receive some nourishment through the subretinal fluid, for in a large number of cases this fluid may be nothing but a transudate and is pathologic only mechanically by reason of its presence. Microscopic sections of retinal detachment show that as long as a number of the pigment epithelial filaments lying between the epithelial cells remain unbroken, degenerative changes do not develop in the layer of rods and cones. It is only after they have occurred that those multiple changes so commonly seen in old detachments appear. It is only through this maintained integrity of structures that recovery of vision can occur after reattachment, even when the attachment has existed for some time.

Recently it was my privilege to study an eye microscopically after successful reattachment through surgery by the use of a classical scleral trephining-potassium hydroxide Guist-Lindner technic. The patient died 3 years after the operation. Slow progressive retinal as well as choroidal degeneration was seen. The degree of recovery depends largely upon the presence of healthy rods and cones, and upon the absence of a subretinal proliferation of irregular cells (probably pigment epithelial cells). The presence of cholesterol crystals microscopically is almost certainly the proof of extensive degeneration so marked that failure was foredoomed.

Physiologically, this is concurred in by 2 well-known tests—the state of the blue field and of the light-sense threshold. They are almost a true measure of the function of the rods and cones. Great loss occurs in them with detachment, the greater loss early being in the blue field. The blue-field defect continues to exist to a certain extent, even after ophthalmologically confirmed surgical reattachment. Further, it is not always proportionate in recovery to that degree seen in the return of the peripheral form field previously lost and of central visual acuity. In the final analysis both form field and central acuity are rather similar gross epicritic responses and need not have perfection in retinal details to show readily a perception improvement following surgical success. The second and more important is the state of the postoperative light-sense threshold. Kronfeld and I, separately, noticed this tremendous disproportion present in the reattached retina. In no single instance was the light-sense threshold in any way proportionate to the remainder of the recovery. It was not at all uncommon to find 6/6 vision present, a fair peripheral form field, good general color sense and color fields, and after preliminary light and dark adaptation a light sense minimum of less than one-tenth of the normal.

The ophthalmologic appearance of the reattached retina is also most interesting. Traumatic chorioretinitis incidental to the surgery is classic now and needs no discussion. Regardless of the type of surgery used, these lesions are all roughly similar. Usually circular, with a tendency to coalesce, they show atrophy of the choroid and the retina, and pigment migration; their margins are slightly depressed as seen with the Gullstrand ophthalmoscope, and some of them show very fine radial lines passing into the contiguous retina similar to the lines from a jeweled sunburst brooch.

Other changes are a bit irregular and do differ roughly depending upon the underlying etiology. Those cases of choroiditic predominance may show newly formed blood vessels upon the retina and a marked amount of vitreous opacities, both large as well as of a fine dust-like character. They may have delicate retinal strands of a proliferating character passing into the vitreous, and in them the retina is definitely pale with ironed-out details. Often they have irregular and vaguely defined areas of pigment migration. Those cases which seem to be purely myopic (if this etiology is positive and not simply an accompaniment) frequently show striæ retinæ (unsuitably at times called retinitis striata). The retina is often pale yellow in color, and it continues indefinitely so. Vitreous opacities as seen with the ophthalmoscope are not as marked, but the slit lamp reveals marked fragmentation of vitreous fibers, brown dots and granules adherent to these fibers, and a complete loss of the post-lental space. In cases of traumatic etiology, retinal striæ seem to predominate above all other signs. Naturally these do not follow with unfailing regularity. Holden first expressed the opinion, in 1895 (although they were first described by von Jager in 1869), that retinal striæ were due to an organization of subretinal hemorrhages. This may be a reason why they seem to be more frequent in traumatic detachments. If so, then a 2-fold theory for their formation is also necessary. The consensus of opinion now, according to Fuchs, Leber, Uhthoff, Slocum, and many others, is that they are lines of choroidal and neuro-epithelial exudates, delimitating borders of fractional detachment, "lying like lines of débris," quoting Anderson, "which mark the limits of the receding tides on the sands."

What will these cases present 10, 15, or 20 years after successful surgical reattachment has occurred, in both the microscopic and the ophthalmoscopic fields of investigation?

JAY G. LINN (Pittsburgh): The Safar method is the most practical type of operation for detached retina. One important point not mentioned by the essayists is the desirability of repeating the operation if unsuccessful the first time. I wish to report one case.

G. S., age 48, having congenital coloboma of the iris of both eyes and developing cataract, was operated on (left eye) 5 years ago through an inferior incision with intracapsular extraction. Good results were obtained for several months, then retinal detachment occurred. A cataract developed in the right eye. Incision was made above, followed by peripheral iridectomy, and the lens delivered after the capsule had been ruptured with capsule forceps. Detachment developed the third day after extraction, but reattachment took place on keeping the patient flat in bed for 3 weeks.

There being a rather dense secondary membrane, vision with correction was only 6/60; but the patient was able to be about and at work for about 5 months, when detachment recurred. No tear was found in the retina. Since primary detachment was from above the superior rectus was cut and 12 needles instilled in the upper field, a trephining opening was made, and free drainage resulted. The retina returned to proper position for about 5 days and then protruded.

The internal rectus was freed and 14 needles were inserted on the nasal side. This apparently accomplished very little since there was not as much reapposition as after the first operation.

One month later the inferior rectus was incised, 12 needles were inserted, and a trephine opening was made

as in the first operation. This operation was followed by complete reapposition of the retina, which has remained in place. The vision now is the same as following the cataract extraction; the fields are slightly contracted, but not markedly so. Probably better vision would be secured if capsulotomy were performed, but it is questionable whether the eye should be disturbed further, at least for some time.

GEORGE B. JOBSON (Franklin): The procedure described by Dr. Peter is the best method for curing detachment of the retina. Its success depends as much on the small fistulæ temporarily formed by the puncturing needle as upon the adhesive inflammation set up by electrocoagulation. I say this advisedly, because a patient of mine was cured in 1910 by the accidental production of an artificial fistula.

The case was that of a myopic woman, age 35, with a detached outer and lower quadrant of the retina of the left eye. A number of things which were advised then for this condition were done, such as the use of iodides, rest in bed, etc., but there was no improvement. Dr. E. B. Heckel saw the patient and advised operation. The operation consisted of doing a sclerotomy with a cataract knife midway between the external and lower rectus muscles, puncturing successively the sclera, choroid, and retina. As the knife was withdrawn it was turned meridionally. There was escape of subretinal fluid and a bead of vitreous followed by a fold of membrane which came into the wound and remained there. Discharge of subretinal fluid continued for a week. The patient recovered from the retinal detachment and is well today. Vision in the affected eye 5 weeks after the operation was 20/50 with correction.

The establishment of temporary fistulæ helped as much as anything else to cure this condition.

LEIGHTON F. APPLEMAN (Philadelphia): Any method which gives this class of cases so much hope for a certain amount of useful vision deserves consideration. It is too soon for me to evaluate the results of operative procedure. I have operated upon 5 of these cases by one or the other of the procedures mentioned. The results in the first 4 were not all that might be desired, due mainly to faulty technic. In the last case, which was done about 4 weeks ago according to the Walker technic, the result was excellent. This case was one in which the detachment was in the lower portion of the field, and the field was reduced to a small area in the right eye. The operation was performed according to the Walker technic, 14 needles being inserted after the resection of the inferior rectus. The result 3 weeks later was practically complete restoration of the field of vision.

Two or 3 points regarding the operation need to be stressed: To secure a sufficient area it is necessary to resect one of the muscles; it is important to have the field as dry as possible, free from blood or vitreous; and the needles should be inserted in such a way that each one takes hold without allowing the subretinal fluid to escape. If that is done and all the needles hold until they are taken out, the subretinal fluid will then come away and the retina will fall back into place and probably remain so.

HARVEY E. THORPE (Pittsburgh): It is worth while to stress the importance of finding the retinal tear or hole, its fairly accurate localization in the proper meridian, and its approximate distance from the ora and from the optic disk. If it is impossible to find a hole

in a detached retina with the patient in the sitting position, sometimes it can be located after the patient has been kept in bed for 2 days and then examined while reclining. It is especially important to search the extreme fundus periphery with white and also red-free light. A careful survey of the retina may reveal more than one hole. The failure to find and seal all retinal holes or tears has probably been one of the causes of failure for permanent reattachment.

It is sometimes difficult to study the retinal periphery in aphacic patients with poorly dilatable pupils. I adapted the Zeiss contact glass 7 mm. corneal radius for seeing further into the periphery in these cases. It is possible to study the region near the ora and see pathologic changes in this locality as well as to find tears otherwise invisible. The insertion of the contact glass is preceded by maximal attainable dilatation of the pupil and a drop of 00.5 per cent pantocaine or 2 per cent holocaine.

A procedure that Gonin uses is the insertion of a small suture at 3 o'clock and 9 o'clock at the limbus to mark the horizontal meridian for reference. This has been helpful. Another method is the marking of the outlines of the area to be treated with diathermic micropunctures by means of gentian violet dissolved in alcohol.

In order to get prompt perforation and avoid shrinking of the sclera sufficient current must be used. The Safar needles are at times difficult to hold. This needle has been simplified by making a platinum loop 1 mm. in diameter with a projecting pointed wire 1.2 to 1.8 mm. long. The needles are placed by a forceps having serrations on its blades running at right angles to each other. This keeps the needles from jumping out of the forceps and they can be placed anywhere along the dry sclera without the needle jumping or turning.

The apparatus for source of current is one of my own design built by a radio mechanic. It has an

optimum mixture of coagulating and cutting current.

I recently had the privilege of showing a case operated upon by me 10 months ago by the Safar-Walker technic to several of my Pittsburgh colleagues. This boy had suffered a traumatic retinal detachment with a tear at the ora extending from 9 to 1 o'clock. The retina became attached after an operation using 18 micro-needles. Without my knowledge or permission he worked as a life guard for 4 months during the past summer and despite frequent high dives from a 12-foot board he suffered no apparent ill effects. His vision previous to operation was 10/200. When seen a week ago the retina was entirely attached, the field restored, and the vision 6/7.5.

DR. PETER (in closing): I agree with Dr. Appleman in the points of technic which he stressed. There are many points of technic, all of which must be observed with refinement. Unless the technic is refined, further failures are apt to follow.

The use of the contact glass is the only way by which a satisfactory view of the aphacic fundus can be obtained. The 7 mm. radius is the one of choice.

I do not use guide sutures, but I do use very accurate measurements to determine the meridian. Guide sutures may be misplaced; coagulation points are never misplaced, and as the first coagulation point is near the ora serrata in exactly the meridian of the tear, that furnishes my guide. The second one is the most posterior point I want to reach. With these 2 points in mind, the operator cannot go wrong.

Filtration is an important factor for 3 or 4 days. The means by which the retina is reattached is through the coagulation which brings about adhesions between the retina, choroid, and sclera. In flat detachments, it is much better to use short needles, or the method of Weve, the fluid being withdrawn through a single fairly good-sized opening.

HYPERTHYROIDISM TREATED BY IRRADIATION*

Report of Cases

JAMES J. QUINEY, M.D., EASTON, PA.

Many articles setting forth the value of irradiation in the treatment of hyperthyroidism have appeared in the literature within recent years, notable among which are contributions by Pfahler, Pordes, Groover, Menville, and others. The evidence now available is more than sufficient to place roentgen therapy on an equal footing with surgery in the treatment of this not infrequent disease and to convince the more skeptical of its great value.

INDICATIONS FOR IRRADIATION

Except in those patients who are extremely toxic and those suffering from pressure effects produced by the enlarged gland, there are no

contraindications to the use of roentgen rays or radium in the treatment of this disease.

On the other hand, the advantages of this type of treatment of hyperthyroidism are considerable. Pfahler¹ has enumerated them as follows:

1. "The fear of operation is eliminated and therefore the patient is more likely to come under treatment early and before cardiac damage has taken place.
2. "Due to elimination of this fear and early treatment the patient's occupation is not interrupted. When the disease is well advanced or serious symptoms are present, he must, however, be put to bed.
3. "There is no pain or shock, and no great inconvenience if the patient is treated reasonably early.
4. "Patients with advanced disease or serious heart complications may be treated without shock, and if radium is used, need not even be removed from their room.
5. "There is no risk of mortality from the treatment.

* Read before the Section on Medicine of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 3, 1934.

6. "There are no scars or keloidal formations.
7. "The final results are, at least, equal to those obtained by surgical procedure."

TECHNIC

The method of treating hyperthyroidism by irradiation is very similar among various workers.

It is my custom to divide the anterior surface of the neck above the clavicles into 3 fields, one over each lobe of the thyroid and one between the above described areas. A fourth area includes the upper region of the thymus. The ports are approximately 6 cm. to 8 cm. in diameter and the adjacent skin surface is carefully protected by sheet lead molded to the shape of the underlying surfaces. The larynx is always protected by a piece of sheet lead about 3 cm. by 5 cm. The central ray is directed in such a manner as to produce a crossfiring effect within the glandular structure.

The following factors are used: 125 to 130 Kv. P. (mechanically rectified transformer), 5 Ma., 6 mm. Al. filter, and a 10-inch focal skin distance.

With this set-up 282 r units or about 43 per cent of an erythema skin dose is given to each area. All 4 areas are treated at one sitting unless the condition of the patient is such that a divided dose technic is preferable.

As a rule several series of treatments are given at intervals of 4 weeks. Definite evidence of improvement is usually noted following the third or fourth series. The intervals between additional treatments are then made longer and as the basal metabolic rate approaches normal, treatments are discontinued. Many cases showing no improvement after the third series frequently respond with amazing rapidity about 2 weeks after a fourth series. Patients often become discouraged after a few weeks and it is advantageous to explain, at the outset, the probability of delay in improvement. The patient should not be allowed to expect much improvement in less than 3 or 4 series.

Most cases are referred to me with a diagnosis, a basal metabolic report, and such other laboratory findings as may be pertinent to the case. It is my custom, however, to search for foci of infection; the teeth are examined by means of roentgenograms, and the heart and lungs are examined radiographically. A sub-sternal thyroid and disease of the tonsils and sinuses are eliminated. The patient is reassured and every effort is made to place him at ease. Rest in bed is insisted upon in severe cases. It is encouraged in mild cases and graded according to the severity of the case in hand.

Post-irradiation treatment is carried out with the aid of the attending physician. Symptomatic medication only is permissible, such as sedatives, digitalis, and tonics. Iodine is not permitted in any form except in those cases where the severity of the symptoms demands that temporary relief be afforded. Powdered stearate of zinc or Dodd's solution is used locally over the areas treated at least twice daily.

RESULTS TO BE EXPECTED

The improvement of these cases as noted in the weight curve is impressive. Groover has called particular attention to the weight curve as an index of improvement. An early increase in weight indicates a good prognosis. This is one of the best, if not the best, evidence of a satisfactory response to irradiation treatment.

The metabolic rate is generally conceded to be a very definite indicator of the progress of the case. It is a more variable factor, however, than is the weight curve because of the unstable nervous condition of the patient. It is well known that slight changes in the patient's mental state, environment, *etc.*, affect the basal metabolic rate to a marked degree. Usually, however, if properly recorded, the downward trend of the metabolic rate is a good indicator of response to irradiation therapy. The persistence of a high rate has been noted after completion of treatment by irradiation, but it gradually returns to normal or below normal. The improvement in the general condition of the patient is noted also by slowing of the pulse rate, decrease in exophthalmos, less mental and physical agitation, greater composure, lessening of activity of the sweat glands, and a general return to normal.

The pulse rate is a very useful index in determining the progress of the case. Previous to the more general use of basal metabolic apparatus, it was the chief guide.

DANGERS

Although the dangers of administering irradiation therapy in hyperthyroidism are remote there are certain conditions which should be mentioned because of arguments sometimes advanced to discredit the method.

Telangiectasia does not occur in any case unless the dosage has been excessive either in individual applications or in total amount. If even a moderate erythema develops there may be telangiectasia or skin atrophy. By erythema is not meant a tanning or bronzing of the skin. Pfahler quotes Borak, Pordes, and Goette, who claim an exacerbation of symptoms after the first treatment. I have never noted such a phenomenon.

Hypothyroidism has been referred to by some as a danger when roentgen-ray therapy is used for the treatment of hyperthyroidism. It is evidently very rare. Groover reported its occurrence in 1.3 per cent of his series of 305 cases. Pfahler reports it in less than 1.0 per cent of his series. It was not observed in any of my cases. Coutard stated in discussion that, in cases of carcinoma of the thyroid where 5000 to

7000 r units were used with a quality of 200 Kv. P., not a single case of hypothyroidism developed.

It is true that irradiation fails to cure hyperthyroidism in from 10 to 20 per cent of the cases. Why this is true is not known. Often those cases which are resistant to irradiation are readily cured by surgery. It is equally true that many cases which do not respond to surgical

TABLE I

Initial	Age	Weight		Duration of illness	Basal metabolic rate		Number of series	Result
		Before	After		Before	After		
Mrs. A. B.	30	.....	.....	2 years	+ 65	+ 15	5	Discontinued treatment
Mrs. R. B.	25	124	126	1½ years	+ 32	- 11	4	Recovery
Mr. D. B.	43	135½	143¾	10 months	+ 60	.....	4	Recovery
Miss M. B.	18	.....	.....	4 years	+ 11	.....	1	Discontinued treatment
Mrs. H. B.	50 (?)	120¼	132½	3 months	+ 65	.....	6	Recovery
Mrs. M. B.	40	101	100	9 months	+ 34	.....	4	Discontinued treatment
Mrs. M. C.	50 (?)	.....	.....	2 years	.....	.....	1½	Died
Mrs. M. O.	60	.....	.....	8 years	+ 39	.....	1	Discontinued treatment
Mrs. L. D.	19	150	.....	3 months	.....	.....	1	Discontinued treatment
Miss A. D.	25	109	111	9 months	+ 40	.....	4	Recovery
Mrs. M. D.	23	.....	.....	8 weeks	+ 69	.....	3	Recovery
Mrs. F. D.	50	104	.....	.....	+ 33	.....	2	No improvement
Mr. F. D.	46	.....	.....	2 weeks	+ 55	.....	1	Discontinued treatment
Mrs. G. D.	35	Gained 20		.....	+ 46	+ 7	4	Recovery
Mrs. E. D.	.....	114	119	1 year	+ 15	- 3	2	Recovery
Mrs. P. D.	54	.....	.....	1 year	+ 33	.....	5	Recovery
Mrs. M. D.	57	.....	.....	2 months	+ 43	.....	2	Discontinued treatment
Mr. W. E.	39	.....	.....	5 weeks	+ 15	.....	4	Recovery
Mrs. T. F.	.....	.....	.....	10 years	+ 30	.....	4	Lost trace
Miss E. F.	37	125	138	2 years	+ 73	.....	7	Recovery
Mrs. L. F.	24	.....	.....	1½ years	.....	.....	6	Improvement
Mrs. E. G.	26	123	124½	3 years	+ 62	.....	5	Recovery
Mrs. R. G.	36	.....	.....	4 months	+ 65	.....	11	Recovery
Miss E. H.	23	96	104¼	13 months	+ 27	.....	4	Recovery
Miss M. H.	27	133½	.....	6 months	+ 104	+ 45	4	Lost trace
Mrs. E. H.	35	.....	.....	2 months	+ 11	.....	1	Recovery
Mrs. H. J.	48	.....	.....	5 months	+ 23	.....	3	Discontinued treatment
Miss L. J.	15	131	133	2 years	+ 12	.....	5	Lost trace
Miss K. K.	62	.....	.....	2 years	+ 25	.....	4	Recovery
Mrs. A. K.	48	.....	.....	.....	+ 25	.....	4	Lost trace
Mrs. G. K.	51	125	144	1 year	+ 50	.....	6	Recovery
Mr. F. K.	18	.....	.....	2 years	+ 39	.....	4	Slight improvement
Mrs. M. K.	62	133	135	4 years	+ 76	.....	6	Recovery
Mrs. H. K.	50	.....	.....	2 months	+ 31	.....	4	Recovery
Mr. O. L.	27	121	121	1 year	+ 55	.....	2	Recovery
Mrs. L. L.	29	.....	.....	.....	.....	.....	2	Discontinued treatment
Mrs. E. M.	51	116½	130	.....	+ 51	.....	4	Improvement
Mrs. E. M.	54	120	122½	1 month	+ 50	.....	5	Recovery
Mrs. W. M.	45	117	126	2 years	+ 40	.....	8	Recovery
Mr. L. M.	33	152	164	2 months	+ 42	+ 36	6	Discontinued treatment
Mrs. L. M.	71	.....	.....	2 months	+ 26	.....	1	Discontinued treatment
Mr. S. M.	40	121	135	3 months	+ 41	.....	8	Recovery
Mrs. B. M.	40	.....	.....	6 months	+ 40	.....	4	Recovery
Mr. B. O.	48	.....	.....	4 months	+ 58	+ 6	8	Recovery
Mrs. W. P.	47	110	115	6 months	+ 84	.....	4	Recovery
Mrs. J. P.	67	93	101	1 year	.....	.....	6	Discontinued treatment
Mrs. E. P.	56	151	155	1 month	+ 54	.....	7	Recovery
Mrs. A. P.	37	132	.....	9 months	.....	.....	5	Lost trace
Mr. H. R.	53	130	141	7 months	+ 24	.....	5	Recovery
Mr. J. R.	65	162	170	1½ years	+ 29	.....	4	Recovery
Mrs. E. R.	.....	.....	.....	.....	+ 25	.....	8	Lost trace
Mrs. S. R.	25	.....	.....	6 years	.....	.....	2	Discontinued treatment
Mrs. L. S.	21	.....	.....	1 year	.....	.....	6	Recovery
Mrs. O. S.	.....	121½	123	2 years	+ 41	.....	4	Lost trace
Mrs. E. S.	48	100	.....	4 years	+ 54	.....	4	Recovery
Mrs. E. S.	40	108½	116¾	3 months	+ 99	+ 40	7	Lost trace
Mr. I. S.	40	119	118	1 year	+ 14	.....	2	Recovery
Mrs. E. S.	29	.....	.....	.....	.....	.....	5	Slight improvement
Mr. C. S.	52	141½	147½	1 year	+ 65	.....	4	Lost trace
Miss E. S.	34	90½	93	2 months	+ 19	- 3	3	Recovery
Miss K. S.	24	93	95	.....	+ 21	.....	2	Recovery
Mr. F. T.	22	.....	.....	2 weeks	+ 22	.....	3	Recovery
Mrs. W. V.	41	Gained 7½		3 months	+ 21	.....	7	Recovery
Mrs. G. W.	.....	124	134¾	3 months	+ 56	.....	5	Recovery
Mr. A. W.	45	127¾	136	4 months	+ 45	- 11	5	Recovery
Mr. J. W.	33	116	134½	2 weeks	+ 27	.....	6	Recovery
Miss M. W.	24	.....	.....	.....	+ 21	.....	3	Recovery
Mr. W. Y.	40	.....	.....	10 months	+ 60	.....	3	Recovery
Mrs. E. Y.	61	115	125	6 months	+ 52	- 5	4	Recovery
Mr. F. Y.	47	148¾	176¾	7 weeks	+ 69	.....	3	Recovery
Mrs. V. Z.	27	.....	.....	4 years	+ 32	.....	7	Recovery
Mrs. R. Z.	27	169	.....	3 months	+ 46	.....	4	Discontinued treatment

treatment recover when irradiation is used. A certain percentage of cases will not respond to either method.

Recurrence has been infrequent. It is my opinion that many so-called recurrences are cases which did not receive sufficient irradiation when previously under treatment.

Of the 73 cases, 15 patients discontinued treatment and 9 patients could not be traced. One of those who discontinued treatment died of an operative procedure for removal of the thyroid gland. Another died after having but 2 areas treated. Forty-eight hours intervened between the treatment of the 2 areas. This patient was extremely toxic and was suffering with cardiac decompensation, which caused her death.

In 1 patient, a physician's wife, there was no improvement. This patient had a thyroidectomy and made a very satisfactory recovery. Four patients were temporarily improved. Of the total number of patients who completed their courses of treatment, 44 (or 89.79 per cent) made satisfactory recoveries.

The average number of series given the patients who recovered was 4.7. The average age was 46.5 years. The youngest patient was age 15 and the oldest was age 71. The average duration of illness before the patient reported for treatment was 11.5 months.

The average basal metabolic rate before treatment was plus 43.5 and after treatment minus 2.8. The lowest basal metabolic rate of patients reporting for treatment was plus 11 and the highest was plus 104. The patient with a plus 11 basal metabolic reading had the usual symptoms of hyperthyroidism very well defined, and the pulse rate was rapid and irregular. The pulse rate is a very reliable indicator in cases of hyperthyroidism.

The average gain in weight in the recovered cases was 8.36 pounds; the lowest gain was 1.5 pounds and the greatest gain was 28 pounds. A quick gain in weight following a series of treatments is usually indicative of a good prognosis.

One case which apparently recovered suffered recurrence after a few month's interval. This patient had a total of 11 series, very much more than is preferable, but she recovered from her hyperthyroidism. Extensive telangiectasia developed. Two other cases had moderate telangiectasia. One case temporarily improved by irradiation had previously undergone operations for ligations and partial removal.

In many of the cases there was no visible or palpable tumor of the thyroid gland. In those

cases in which a tumor was present it usually disappeared after a few months.

None of the cases showed hypothyroidism following the treatment.

The percentage of recovered cases compared favorably with that of other workers. Pfahler reports 88 per cent of recoveries, Williams 80.5 per cent, Groover 88.85 per cent, and Holzknecht 83 to 90 per cent.

In contrast with surgical removal of the thyroid for the treatment of hyperthyroidism the roentgen-ray method is easier of accomplishment, and the fear and nervous strain of an impending operative procedure is avoided. There is no mortality by the roentgen-ray method. This statement cannot be made regarding surgical removal. The roentgen-ray method does not interfere with an operative procedure at a later date should the disease fail to respond to roentgen-ray treatment. There has been much controversy on this point but there is abundant evidence to prove the correctness of that statement.

The economic phases of the roentgen method as compared with the surgical method of treatment are also worthy of note.

In many instances the patient's occupation can be carried on as usual. When treated by roentgen rays most of the cases were ambulant patients and their routine of living was but slightly interfered with. Hospitalization was not necessary in any of the cases although desirable in some who did not receive it.

SUMMARY AND CONCLUSIONS

This paper is a report of 73 cases of hyperthyroidism seen in private practice and treated by roentgen rays. It shows recovery in 89.7 per cent of the cases in which treatment was completed, improvement in 8.1 per cent, and no improvement in 2.4 per cent of the cases. It indicates the value of the basal metabolic rate, the weight, and the pulse rate as guides to improvement or lack of improvement.

From the foregoing it is evident that hyperthyroid cases, with few exceptions, should receive roentgen-ray treatment. The comparatively few cases not cured by roentgen-ray treatment may then submit to surgical treatment, which does not offer better results, if as good, but is effective in some cases which do not respond to irradiation therapy.

309 Bushkill Street.

REFERENCE

1. PFAHLER, GEORGE E.: "Irradiation Treatment of Hyperthyroidism," *Annals of Internal Medicine*, Vol. 7, No. 7, 868-884, Jan., 1934.

ROENTGEN THERAPY VERSUS SURGERY IN THE TREATMENT OF HYPERTHYROIDISM*†

JOHN T. FARRELL, JR., PHILADELPHIA

The widespread and high incidence of hyperthyroidism warrants careful comparison of the various therapeutic measures used in its treatment. Three methods are in general use: (1) The so-called medical treatment consisting essentially of bed rest and the administration of suitable drugs, notably iodine, and supplemented with psychotherapy by some clinicians; (2) radiation therapy, usually by means of roentgen rays, though radium is used by some; and (3) surgery consisting of removal of part of the thyroid gland or ligation of its vessels.

In many patients with hyperthyroidism various forms of medication are employed with varying degrees of success before resorting to either radiation or surgery. It is, therefore, difficult to compare the efficiency of medical treatment with that of radiation or surgery. It is certainly fair to say that the success of general medical measures is not complete, for if it were patients would never have to be treated by the other methods.

The author has had no experience with the use of radium in the treatment of hyperthyroidism and comparisons will be limited to roentgen therapy and surgical measures. Malignancy of the thyroid, nontoxic cystic disease, and adolescent hypertrophy will not be considered. The problem of malignancy of the thyroid is different from that of hyperthyroidism unassociated with neoplasm, nontoxic benign cysts do not respond to radiation, and in nontoxic adolescent hypertrophy radiation is not generally employed.

Comparisons will be made along several lines: (1) General considerations of availability, relative convenience of applying the 2 methods and their economic aspects; (2) the dangers and sequelæ of each method; and (3), the results as gauged by cure, improvement, or nonimprovement.

AVAILABILITY

* The number of surgeons in the United States greatly exceeds the number of roentgenologists; the last directory of the American College of Surgeons lists approximately 10,000 members whereas the 1933 list of approved radiologists issued by the American Medical Association had but 1187 names of physicians specializing in

this branch of medicine. It should be borne in mind, however, that many members of the College of Surgeons do only special regional surgery and do not attempt thyroid surgery. Many others who do thyroid surgery are probably not well qualified, because surgery of the thyroid gland even if done by the most experienced and skillful is not without danger. The majority of roentgenologists, on the other hand, are qualified to treat hyperthyroidism safely and effectively. In spite of the disproportion in the number of surgeons and roentgenologists, it may be said that communities with adequate and safe facilities for the carrying out of surgical procedures on the thyroid, in most instances, will have available adequate facilities for roentgen therapy.

CONVENIENCE

Surgery of the thyroid gland is never simple. It requires careful preoperative care, painstaking anesthetization, great surgical judgment, and skillful postoperative treatment. From the patient's viewpoint surgical operations are never convenient; the operation itself is always accompanied by dread of the anesthesia, the fear for safety, the after-pain of the incision, and general discomfort. The literature of thyroid surgery is filled with articles dealing with these inconveniences and methods for minimizing them. However, no method has yet been found which will wholly do away with the dread of anesthesia, and if the actual making of the incision is not accompanied by pain, its after-effects are in every instance uncomfortable and frequently painful.

Contrasted with these inconveniences of surgery is the convenience of roentgen therapy. Roentgen procedures, as Quiney has pointed out, are readily and conveniently applied. There is no pain of operation and no after-pain due to an incision. Whatever dread the patient may have of the treatment before he has received one is allayed after the first session. Treatment of the thyroid is rarely, if ever, followed by roentgen sickness. Occasionally patients complain of a sense of oppression after roentgen therapy, but this is so trivial that it is not to be compared with postoperative distress.

It is said sometimes that treatment by roentgen therapy requires a longer time away from the patient's customary activity than does surgery. It is difficult to make accurate comparisons be-

* Read before the Section on Medicine of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 3, 1934.

† From the Roentgen-Ray Department, Jefferson Medical College Hospital.

cause time of discharge after operation does not give the exact duration of the incapacity,* and in the case of the housewife return home does not predicate return to normal activity. The time required for recovery under roentgen-ray therapy could probably be greatly shortened if patients were treated earlier in the course of their disease. Wallace and Wevill, in an analysis of the results of surgical treatment of toxic goiter, record that the average duration before surgery in the male was 35.6 months for those with primary toxic goiter and 47 months for those with secondary toxic goiter, whereas in the female patients the average duration was 44.7 months with the primary and 50.3 months with the secondary. Undoubtedly post-roentgen-therapy recovery time and postoperative recovery would be greatly accelerated if patients were treated by either method earlier.

Although recovery by roentgen radiation is hastened by rest, it is not always possible to remove the patient from his usual activities and yet he recovers under roentgen-ray therapy alone. In surgical treatment of hyperthyroidism it is always necessary that the patient be hospitalized for some time. With roentgen therapy hospitalization is not necessary and the patient may be kept at rest at home. That there is a saving to the patient and the community is evident.

DANGERS

The potential dangers from roentgen-ray therapy are the production of a dermatitis, the development of telangiectasia, and myxedema. Under modern roentgen practice the danger of dermatitis with the late development of telangiectasia has almost disappeared. Knowledge of dosage and filtration is now such that these sequelæ are rarely seen. Myxedema, although theoretically possible, is extremely rare. The author in a fairly large experience has never seen a case of post-roentgen myxedema; there are only a few cases reported in the literature.

That there is a large number of serious and varied complications of thyroid surgery is attested to by the following titles of papers taken from recent numbers of *The Quarterly Cumulative Index*: "Air Embolism Complicating Thyroidectomy"; "Main Causes of Injuries to Recurrent Nerve During Goiter Operations"; "Injury of Laryngeal Branches of the Vagus Nerves"; "Pancreatic Fat Necrosis Following Subtotal Thyroidectomy." In addition to these complications myxedema and postoperative tetany may also occur.

Death rates vary with surgeons. In the case of the individual surgeon there is a tendency for

diminution of the rate with increased experience, and the rate often becomes very small though rarely is it absent. In their series of 285 cases Wallace and Wevill report a mortality rate of 12.3 per cent; 35 deaths occurred as a direct result of operation.

Death rarely occurs as a result of roentgen treatment of hyperthyroidism.

END RESULTS

These can be gauged by the consideration of gain in weight, return of the basal metabolic rate and pulse rate to normal, cessation of subjective symptoms of fatigue and nervousness, and lessening of tremor and exophthalmos. It is difficult to evaluate accurately the figures of either surgical or roentgen series because of dissimilarity of terms and standards. In the study of different series cases may be grouped as cured, improved, or nonimproved. Richter was able to follow 1096 patients of a series of 1235 on whom he had operated. The mortality rate was 0.89 per cent. Ninety-six per cent became normal after one operation. Twenty-three patients of 39 in whom the first operation was unsuccessful were reoperated upon, and 21 of these were cured. In all, the incidence of ultimate success was 98.4 per cent in the traced patients; the untraced apparently did not figure in his computations. Failure occurred in 1.6 per cent. Wallace and Wevill reported that 75 to 80 per cent of 285 patients were restored by operation so that they became fit to work and symptom-free. Crile analyzed the end results of 20,000 operations which he performed on the thyroid. He reported good results in 80.9 per cent and fair in 17.1 per cent; this would leave 2 per cent presumably unimproved.

The results of roentgenologic treatments may be judged from the reports of Williams, Menville, Sielmann, Pfahler, and Quiney. In a series of 200 cases treated by roentgen rays Williams reported that 80.5 per cent were cured, 13.5 per cent improved, and 6 per cent unimproved. Menville analyzed the results of 10,541 cases treated by 38 different radiologists; he found that 66.22 per cent of the patients were cured by radiation, 21.07 per cent showed marked improvement, and 12.4 per cent were unimproved. In these cases there was 8.45 per cent of recurrences, but to offset these 9.95 per cent had been treated after operation had failed to benefit them. Sielmann reported on 2000 patients treated personally by roentgen therapy. Cures were obtained in 50 per cent and improvement in 45 per cent; in 5 per cent there was failure. In Pfahler's 440 cases treated by roent-

gen rays 57.3 per cent were cured and 30.6 per cent were improved; failure occurred in 12.1 per cent. Quiney reported on 73 cases treated personally with roentgen rays. Of these patients 89.7 per cent were cured and 8.1 per cent improved; in 2.4 per cent there was failure.

From these statistics it is evident that roentgen therapy and surgery are both satisfactory methods for the treatment of hyperthyroidism. In each there are recorded failures, and treatment by one or the other method may be resorted to if either fails. It was formerly thought that roentgen therapy made operation more difficult in those cases in which roentgen therapy failed. This has been disproved; surgery is made no more difficult in these cases than is roentgen therapy in patients in whom there is no improvement or a recurrence after operation.

SUMMARY AND CONCLUSIONS

1. A comparison is made between the roentgen and surgical methods of treatment of hyperthyroidism based on observations gained from 94 patients treated personally by roentgen therapy and a study of the results of roentgen and surgical treatment performed by others.

2. Although there are numerically more surgeons than radiologists the special skill required together with the need for safe and adequate facilities for thyroid surgery in all probability makes surgical treatment little, if any, more available than roentgen therapy.

3. Roentgen therapy is accompanied by less inconvenience to the patient than is surgery. There is no pain, little fear, and no postoperative sequelae if patients are treated by roentgen rays.

4. Often patients do not give up their usual activities while undergoing roentgen-ray treatment. With surgical treatment there is always a period of confinement to bed.

5. When rest is practiced as a supplement to roentgen therapy it may be carried out at the home of the patient without the expense and inconvenience of hospitalization.

6. Roentgen therapy is practically devoid of danger whereas complications of thyroidectomy and other surgical procedures are numerous and of serious import.

7. Myxedema is more common as a result of surgery than of roentgen therapy; it is an extremely rare sequel of roentgen therapy.

8. Although in the hands of experienced operators the mortality rate of thyroid surgery is low, it is always present. In the less experienced it rises to formidable proportions. The

mortality rate following roentgen therapy is practically nil.

9. The end results of roentgen therapy compare favorably with those of surgery. In those cases in which roentgen therapy fails to bring about a cure surgery is not made more difficult. In those cases in which surgical procedures fail to bring about improvement, roentgen therapy may lead to cure.

10. Probably all patients suffering from hyperthyroidism should be given roentgen therapy before being subjected to the inconveniences and dangers of thyroid surgery.

235 South Fifteenth Street.

ABSTRACT OF DISCUSSION

BYRON H. JACKSON (Scranton): There should be more frequent consultations between the roentgenologist and the surgeon. The roentgenologist can help many cases, but in some instances he cannot accomplish anything. Patients who are to receive roentgen therapy should have the advantage of hospitalization because the rest itself is of great importance. The roentgenologist should have his patients in the hospital where he can treat them properly. Many times they do not improve under roentgenotherapy and have to be referred to a surgeon. On the other hand, many patients have been operated upon unsuccessfully.

WILLIAM DONOVAN (Scranton): It seems that the roentgenologist is taking issue with the surgeon as to the better method of treating hyperthyroidism. Neither of the essayists quoted a recognized internist on the subject, although he is the first and last to see the patient. Since the outstanding thought of these papers seems to be the preference of roentgen therapy to surgery in hyperthyroidism it would seem appropriate to ask where Holmes, who was one of the first to use roentgen therapy, now stands in the matter? Also, what does Lahey say? In a rather limited experience, I have seen no benefit from roentgen rays, perhaps because the wrong type of case was treated or because of insufficient treatment. I know of no internist who, except in exceptional cases, recommends roentgen-ray therapy in preference to surgery.

WILLIAM A. BRADSHAW (Pittsburgh): A leading medical textbook merely mentions in a casual way roentgen therapy in the treatment of hyperthyroidism, the implication being that the procedure practically is abandoned save in a few centers where it seems to be successful. Certainly there is no stress being laid on its importance. The present general status and trend of medical thought concerning the method would seem to be well expressed by a personal communication from the Goiter Section of the Mayo Clinic, which is to the effect that it is rarely used at present, and if at all, only in a palliative way, not giving (as they state) roentgenotherapy in any sense a worthy trial. They attribute this to the delay in obtaining results together with surprisingly satisfactory end results since the introduction of Lugol's solution and improved surgical procedures.

In former years more patients in the Pittsburgh district were referred to radiologists than at the present time. No such results as are here reported were obtained in our cases. This may be due to the fact that

they were not given sufficient dosage or that they were followed for too short a period. At times we were not sufficiently patient. We were unduly influenced by some temporary unfavorable symptom that might have followed irradiation. In addition, the radiologists did not stress sufficiently the importance of expecting delay in results. They have been too indefinite as to the results to be expected, which has led to lack of confidence in the procedure on the part of the patient and his physician, leading to incomplete treatments, condemnation of the method, and finally to very probably unnecessary surgery.

It is not necessary to belittle surgical procedures as the results are satisfactory. In the larger hospitals the results have been uniformly good, particularly since the introduction of Lugol's solution and the improved surgical technic. There is ever the question of surgical mortality. Dr. Crile admits 3.3 per cent of his total cases have recurrences of hyperthyroidism after partial thyroidectomy.

Has roentgenotherapy been given due consideration? Does it seem logical to remove radically an important gland from the body just because it is hyperactive, as the thyroid is known to be in Graves' disease, yet admittedly not the sole cause of this condition?

As Boyd has so ably put it, "The thyroid hyperplasia is supposed to be the anatomic basis of hyperthyroidism. But we may be allowed to ask if the evidence of this casual relationship is of such a nature that it must inevitably be accepted. The association of the 2 conditions does not answer the question as to which is the primary. Certain it is that the mere presence of hyperplasia does not necessarily mean that hyperthyroidism is also present. Marine showed long ago that when a large part of the thyroid was removed, the remaining portion showed a picture identical with that of Graves' disease, and yet the animal showed no evidence of hyperthyroidism. Both in animals and man hyperplasia may be present without any symptoms of hyperthyroidism. If the thyroids from a series of routine necropsies are examined one will be surprised at the frequency with which hyperplasia will be encountered. In Graves' disease the hyperplasia may disappear and the gland revert to a colloid condition, and yet symptoms of hyperthyroidism may persist.

"These facts justify us in asking if hyperplasia of the gland is really the cause of the toxic symptoms.

Hypertrophy of the left ventricle is associated with arterial hypertension, but the cardiac hypertrophy is the result, not the cause, of the hypertension. The same may be true of Graves' disease. May the condition not be due to a far-reaching disturbance of body metabolism from some unknown cause, as a result of which a demand is made upon the thyroid for additional secretion? At first the stored colloid is consumed, and this is succeeded by hyperplasia of the epithelium. If this be true, then the hyperplasia is compensatory and not causal, in which case the prevalent practice of removing a large portion of the struggling gland is hardly likely in the end to prove the best method of treatment."

It has been stated repeatedly that the advance in physiologic knowledge of the sympathetic nervous system will result in less thyroid surgery, but until such information is available surgery will continue to be the method of choice.

Not enough importance has been given to the results that can be obtained by irradiation in competent hands. The average radiologist does not encourage physicians to give the procedure a fair trial in the so-called hyperthyroid states. The limitations and contraindications have been ably presented. There is only one additional type of patient who should not be subjected to this method, namely, the uncoöperative individual who feels that surgery is the only hope. A failure no doubt will result as prolonged, faithful coöperation is a true essential to success. The adenomata have been the most resistant to radiation.

The results reported by the essayists seem to be encouraging. I trust they will be a stimulus to further endeavors. Careful follow-up and analysis of these patients should be made with the reports given from time to time in general medical literature, and the merits of this procedure will of necessity force themselves upon us.

DR. QUINEY (in closing): Roentgenologic literature contains many articles regarding the treatment of hyperthyroidism—those of Groover, Menville, Pfahler, and many others. I was surprised to hear Dr. Donovan say that he knew of no benefit or cures from roentgenotherapy. Many cases are referred to us by internists; so the medical men in our community evidently have much confidence in this treatment.

FRACTURE OF THE BODY OF THE CALCANEUM*

TOM A. OUTLAND, M.D., SAYRE, PA.

Although fracture of the os calcis has long been recognized, it was not until about 1907 that much serious attention was paid to this important subject. Standard surgical textbooks of the period just preceding this date show surprisingly little interest in this not infrequent catastrophe and, as would be expected, have little to offer the reader in the way of diagnosis or treatment of the fracture. For example, a 1500-page surgical tome published in 1906 devotes one 10-

line paragraph to the condition, the discussion of treatment being condensed to one sentence which states that "treatment is by massage and immobilization, but the patient should be encouraged to use the limb as soon as possible." An English translation of a 6-volume German *System of Surgery* published in 1914 devotes 5 liberally illustrated pages to the subject, advocates reduction of displaced fractures and immobilization in plaster, and advises that weight-bearing be deferred to the ninth week.

The American literature on the subject of

* Read before the Section on Surgery of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 4, 1934.

fracture of the os calcis may be said to begin with the paper of Cabot and Binney in the *Annals of Surgery* for January, 1907. Impressed by the number of old cases which came to their attention undiagnosed, they attempted a comprehensive study of 111 cases admitted to the Massachusetts General Hospital during a period of 15 years.

In 1908 a paper by Cotton appeared with important suggestions as to treatment—suggestions which have stood the test of time and are still in good repute. In the years following, a fairly extensive literature has appeared, important contributions having recently been made by Wilson and Böhler.

Although many physicians even today fail to appreciate the severely disabling character of this injury, all contributors to the literature are in agreement that such is the case. Cabot and Binney stated that, although the results were classified as good in 50 per cent of their cases (26), all had some pain, none was entirely normal, and the majority had marked limitation of lateral motion. Cotton reported permanent disability in more than 50 per cent in 1908. Magnuson, in 1923, stated that in a large experience as director of an industrial commission he had seen no os calcis fracture that did not result in from 30 to 75 per cent disability of the foot. There is a unanimity of opinion regarding the serious character of this fracture.

Likewise, most essayists agree that it is not unusual, constituting about 2 per cent of all fractures. Obviously this figure will vary somewhat, depending on the situation of the observer, the class of society which largely comprises his clientele, and other less important factors.

With the foregoing in mind, the economic importance of the injury may well be recognized when it is found that males are affected 9 times out of 10 and that the average age incidence is in the neighborhood of 40 years (in Cahill's review of 76 cases, 41 years). Thus, the injury largely affects wage-earning men with dependents—the very type of individual who can least afford a loss of wage-earning power.

TYPES OF FRACTURE

Several types of fracture are described. Avulsion of the tuberosity, fracture of the sustentaculum, and amputation of the posterior process do occur and should be recognized, but they are rare. The vast majority of os calcis fractures involve chiefly the body of the bone, and it is with these that we are at present concerned. Numerous classifications of them have been proposed. In the opinion of Cotton, this

is about as useful as “classifying the cracks in a walnut after the nutcracker is through with it!” However, several types may be recognized with some clarity, clinical consideration demanding effective treatment for each of these types.

1. Impacted fracture producing eversion of the os calcis with mesial deflection of the weight-bearing line and without fracture into the subastragaloid joint.

2. Comminuted fracture with upward displacement of the distal fragment so that the posterior portion of the os calcis is pulled upward by the tendo achillis without fracture into the subastragaloid joint.

3. Impacted comminuted fracture resulting in shortening and thickening of the os calcis so that a displaced bone mass impinges on the external malleolus, without fracture in the subastragaloid joint.

4. The fissured fracture. This fracture is generally a little comminuted but one or more characteristic chief fracture lines are present. As a result of the body weight being transmitted through the posterior facet of the astragalus, a fracture occurs in the constricted portion of the os calcis just posterior to the posterior calcaneo-astragaloid joint, the line extending down and forward. A second fracture line is generally present beginning on the outer side in front on the posterior articular facet and running downward and backward. In the lateral roentgenogram it is frequently noted that these lines form a letter V, surrounding and generally involving the posterior facet and, hence, the subastragaloid joint.

5. Comminuted fracture. This type requires little in the way of description. In the inelegant but expressive words of Cotton, “The heel bone is mashed down and there are all sorts of lines to be found.” The subastragaloid joint is always badly disrupted.

It goes without saying that a combination of 2 or more of the above types may be seen.

MODE OF PRODUCTION

The classical mode of production is by a fall, the patient striking on the heel. The distance is usually considerable but in older people falls of less than a yard may be sufficient. Direct violence may produce the fracture as in a crushing injury, the force being applied laterally. Indirect violence as from twisting the ankle is also an occasional cause. Böhler mentions a rather rare cause seen occasionally by naval surgeons in which, as the result of an explosion below deck, the latter comes in violent contact with the heel.

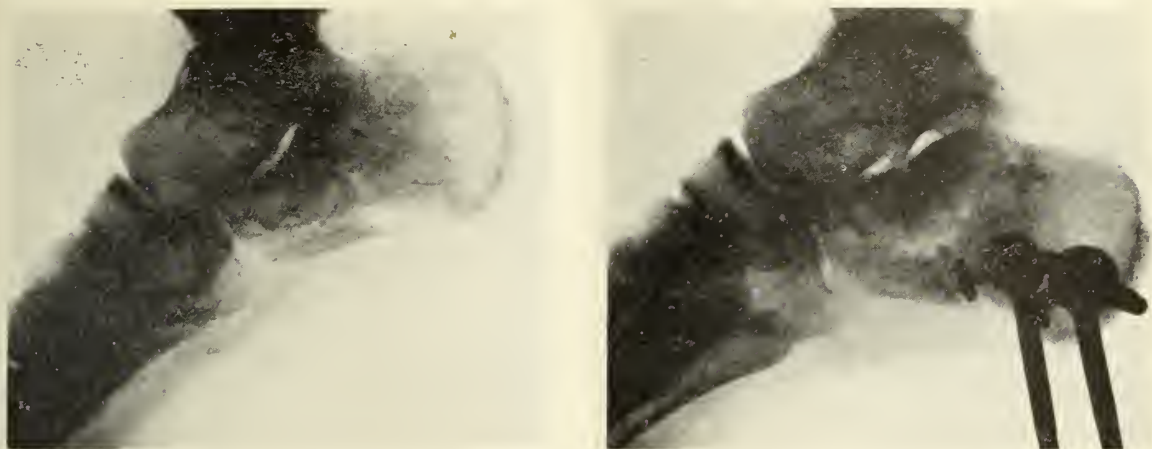


Fig. 1. L. W. (a) Comminuted fracture of os calcis. (b) After reduction by Böhler method.

DIAGNOSIS

In the majority of cases in which the injury has been caused by a fall, the possibility of fracture of the os calcis should occur to the examiner and a roentgenogram (in at least 2 planes, preferably 3) be obtained. In the rarer cases, particularly those caused by indirect violence, this possibility almost surely will be overlooked unless it is a routine procedure to obtain roentgen-ray examination in any injury of the foot or ankle.

Certain diagnostic signs are present on examination. The most important of these is pressure pain strictly limited to the involved bone. Other signs, such as the broadening and swelling about the heel, inability to bear weight on the affected heel, and the hematoma which extends toward the sole of the foot, as Böhler observed, are all suggestive.

TREATMENT

Fracture without displacement.—First, it must be assured that there really is no displacement. The conventional anteroposterior and lateral roentgenograms of the foot are not sufficient. A third view taken from the plantar aspect is essential and is the only satisfactory means of demonstrating the frequent widening of the bone.

Determination of the so-called tuber angle is likewise of great importance as emphasized by Böhler. This consists of the angle formed by the line extending through the upper surface of the tuberosity with a line uniting the highest point of the posterior process. Normally this ranges from 30 to 35 degrees. In a fracture with displacement it becomes decreased or even reversed.



Fig. 2. B. M. (a) Comminuted fracture of os calcis. (b) After reduction by Böhler method.

If these precautions are observed, it will be found that the number of undisplaced fractures is quite small. The method of prolonged immobilization in this type of fracture is to be condemned. Early heat, massage, and active motion without weight-bearing are the keynotes of treatment. After about 8 weeks, a well-fitting arch plate should be applied and weight-bearing begun. Unless the subastragaloid joint is involved, these cases usually do quite well.

Fracture with displacement.—The first attempt at rational treatment in this country must be attributed to Cabot and Binney in 1907. Previously immobilization without much attempt at reduction, physiotherapy, and protection against weight-bearing were advised. Having learned of the suggestion of Carless, a well-known English surgeon, they performed an Achilles tenotomy in order to correct the upward displacement caused by the pull of the calf muscles. They added the suggestion of utilizing hooks inserted into the heel fragment in order to control the latter and pull it down into place. Their experience was admittedly very meager.

In the following year Cotton laid down certain principles of treatment which are still standard, although important improvements in technic have appeared. His method was essentially as follows:

1. Release the fracture by manipulation.
2. Pull the heel down either by use of a sound inserted above the os calcis in front of the heel cord or, preferably, by ice tongs inserted into the bone.
3. Free the joint motion between the astragalus and os calcis.
4. Impaction and obliteration of the bone mass under the external malleolus by striking the padded outer side of the foot with a heavy mallet, the inner side of the foot resting on a sand bag.

5. Immobilization in plaster with the heel cord relaxed, *i. e.*, with the foot in plantar flexion.

The method—a great improvement over any previous one—is obviously haphazard and inexact. Furthermore, maintenance of the improved position was often difficult or impossible. Numerous minor refinements have appeared in the following years. The first real major improvement, however, appeared in the American literature as recently as 3 years ago. At that time Lorenz Böhler of Vienna described a method based on an extensive experience which has changed a crude and uncertain procedure to one with a considerable degree of precision. With the aid of certain original mechanical devices, he proposed the following method:

With the patient anesthetized, as much of the swelling as possible is removed by massage. The impaction of the fragments is then separated by placing the plantar surface of the foot over a wooden wedge and forcing the foot into strong plantar flexion. Under aseptic precaution, a metal pin is placed through the tibia at a point 4 finger breadths above the inner malleolus. A second pin is placed parallel to the first through the posterior upper corner of the tuberosity of the os calcis. Either a mallet or drill may be used to insert the pins. The skin wounds are covered with appropriate dressings. Both pins are now engaged in special metal stirrups and the limb placed upon a screw extension apparatus, the pin through the tibia and its stirrup being utilized to suspend the leg in a horizontal position. The knee is held in flexion against a bar which affords counter traction, the flexed position also being important in that it relaxes the tendo achillis. The pin through the os calcis is attached to the traction device. A spring balance may be interposed in order that the amount of traction may be determined precisely. Traction is made first in the long axis of the leg to pull the tuberosity of the os calcis downward, the forefoot being maintained in pronation and marked plantar flexion. This traction restores the tuberosity angle and resists the pull of the calf group. Traction is then made in the long axis of the os calcis by lowering the screw device to the proper level, the forefoot again being maintained in pronation and plantar flexion. Traction in this line overcomes the shortening and to some extent the thickening of the bone, and resists the pull of the short plantar muscles attaching to the os calcis. By means of these maneuvers, the upward displacement of the tuberosity, the shortening, and some of the broadening of the os calcis are corrected. Also, the joint surfaces of the subastragaloid joint are separated. To correct the remaining broadening of the bone, an ingenious screw vise is applied to the bone and lateral pressure exerted. The instrument is calibrated and by comparison with the normal side the exact width may be restored. The presence of motion in the subastragaloid joint is determined by pronating and supinating the foot. Finally, lateral and plantar roentgenograms are obtained to confirm the reduction. If satisfactory, an unpadded cast is applied incorporating the pins. In from 3 to 5 weeks the cast and pins are removed and a walking cast applied. On its removal in from 9 to 14 weeks, a well-fitting rigid arch support is applied.

Operative treatment.—Operative reduction and subastragaloid fusion have been popular-

ized to some extent largely by Wilson of Boston, although the treatment is by no means original with him. To us it has seemed that this operation—one of distinct value in treating a common complication of os calcis fracture—should not logically be considered until the complication is definitely found to be present.

CAUSES OF DISABILITY

Practically every case will show some degree of impaired function, varying from partial loss of lateral motion to total disability so far as the foot is concerned. Efficient treatment with restoration of the normal contour, so far as possible, will reduce this to a minimum. However, it occasionally happens that in spite of a good anatomic result, considerable disability persists. Moreover, the unrecognized and untreated case is bound to suffer marked impairment of function. There are 4 fairly common causes of disability:

1. Impingement of a mass of bone against the external malleolus. Earlier writers, as Cabot and Binney, and Cotton, regarded this as the most frequent cause and advised operative removal. This advice is still pertinent if the impingement can be demonstrated. However, most recent writers regard it as comparatively infrequent.

2. Foot strain due to permanently pronated position of foot. This may be corrected by osteotomizing the os calcis and shifting the heel inward as originally described by Gleich for correction of flat foot. If considerable motion persists in the subastragaloid joint, this is the method of choice. If motion is markedly restricted,

subastragaloid arthrodesis with the removal of a wedge of bone, base inward, from the posterior facet is preferable.

3. Upward displacement of the posterior fragment due to the pull of the tendo achillis may cause disability in several ways. First, by causing a loss of spring in the gait, since the calf group now works at some disadvantage. Or, weight-bearing may be borne on a ridge of bone well anterior to the usual weight-bearing position. And, finally, small spurs or irregularities may cause a painful heel. In the first instance, nothing much can be done; in the latter 2, frequently a properly constructed flexible support may shift weight-bearing to a nontender area. Occasionally operative treatment consisting of smoothing off the irregularities may be resorted to.

4. Traumatic arthritis of the subastragaloid joint. This is by far the most frequent cause of disability. The patient complains of pain in the region of either malleolus or the margin of the subastragaloid joint posteriorly. He notes that walking on a smooth surface may be relatively painless, but he has considerable difficulty in negotiating irregular surfaces. Examination shows tenderness about the margin of the subastragaloid joint laterally or posteriorly. Lateral mobility is either diminished or absent. Forced lateral motion causes considerable pain. Slight pain may also be produced by forced plantar flexion and dorsiflexion, due to the fact that during plantar flexion the astragalus moves backward about an eighth of an inch upon the calcaneus, coming forward again on dorsiflexion. Roentgen-ray examination generally shows



Fig. 3. R. P. (a) Comminuted fracture of os calcis. (b) After reduction by Böhler method.

roughening of the joint with sclerosis of the underlying bone and, at times, partial ankylosis of the joint.

In a patient with these findings and without other evident cause for disability, almost complete relief may be secured by the simple procedure of subastragaloid arthrodesis. The operation consists of exposure of the subastragaloid and midtarsal joints through a lateral incision, removal of the fat in the subastragaloid fossa, and excision of the cartilage from the 3 facets of the subastragaloid joint. It is probably better to include the astragaloscaphoid joint in the arthrodesis and at times the calcaneocuboid, if the latter is involved in the fracture. The proper weight-bearing position of the foot (slight valgus) may be secured if indicated by the removal of appropriately shaped wedges of bone along with the cartilage. The wound is closed in the usual manner and a long leg cast applied. The foot may be repositioned if necessary at the end of the third week, a short cast then being applied. Weight-bearing in the cast by the use of a metal walking stirrup may be allowed after 6 weeks. Fusion is usually quite solid in 8 weeks.

Properly carried out in carefully selected cases, this is a procedure of very great value. There are practically no objections to it. True, lateral motion is obliterated, but in the type of case under discussion the amount of motion is too small, as a rule, to be of any use and, besides, it is painful. Furthermore, a compensating hypermobility generally occurs in the small joints, which renders the foot quite flexible.

End results of the commonly accepted methods of treatment have already been discussed. To reiterate, at least 50 per cent have from moderate to severe disability and none is completely normal.

Although an insufficient number of cases as yet has appeared in the literature and although the series of cases treated by the Böhler method at the Guthrie Clinic is as yet too small to draw definite conclusions, at least it may be stated that the method gives much promise of decreasing the morbidity of os calcis fractures.

Six cases have been treated by the Böhler method—5 males and 1 female. Of these, 5 have returned to their former occupations with little or no complaint. The contour in every case has been good, lateral motion present from 35 to 75 per cent and painless, and the gait good. From the American literature, 10 more cases including those of Reich, Carruthers, and Foster have been collected, each of which gave a good result, the patient returning to his former oc-

cupation. Thus, in a series of 16 cases, good results were obtained in 94 per cent.

So universally satisfactory has the operation of subastragaloid arthrodesis been in selected cases that no figures will be quoted in support of it. Wilson of Boston, Reich of Cleveland, and many others have written enthusiastically of it. Our experience corresponds with theirs in every respect.

The Böhler method is the treatment of choice in fresh fractures of the os calcis. It definitely follows the principles established by Cotton but gives a degree of precision entirely lacking in the latter's treatment. Subastragaloid arthrodesis is a procedure of great value in relieving the symptoms of an important complication of os calcis fracture, namely, traumatic arthritis of the subastragaloid joint.

Guthrie Clinic, The Robert Packer Hospital.

ABSTRACT OF DISCUSSION

PAUL R. SIEBER (Pittsburgh): Any form of treatment of this frequently disabling injury that results in approximately 95 per cent of the patients returning to their former occupations deserves most serious consideration.

Dr. Böhler's method as described and used by Dr. Outland aims to restore the anatomic form of the os calcis, returning it to its normal position and bringing about as nearly as possible its normal physiologic function. The principles of the method are fundamentally sound. Very careful personal supervision of minute details is absolutely essential if success is to be attained. The strong tendo achillis is sometimes very resistant to any attempt to pull the posterior fragment down even though the knee is flexed. It is very difficult at times with a mallet and sand bag or even with a wrench to narrow the widened bone and drive it back to its position beneath the astragalus. The proper correction of any displacement in the subastragaloid joint is a most difficult problem. Very few of these fractures fail to show definite joint involvement with displacement of fragments.

The axial deviation or eversion and the shortening of the bone can be corrected and often the widening may be remodeled, but not infrequently there is left a painful subastragaloid joint. This is elicited by painful lateral motion and constitutes the most frequent cause of disability. Provided the subastragaloid joint is involved, regardless of the method of treatment, there is always more or less loss of function at this point. It is not essential for a good, strong, and serviceable foot.

We have used in fresh cases the manipulative reduction and lateral compression method devised by Cotton with what we considered only fair results. Not a few cases had disabilities due to what we considered traumatic arthritis involving the subastragaloid joint, and a subsequent fusion of this joint was necessary to relieve the pain. As a result of this experience, early in 1929 we began, as suggested by Wilson, to fuse this joint in all cases where the fracture involved the joint with displaced fragments. The results were so gratifying that we have continued to do so and up until the end of 1933 have done arthrodesis in 21 fresh cases. All but 5 have returned to their former occupations.

As a result of this experience we have not used the Böhler method. There is a very definite field for this method, as stated by Dr. Outland. If it had been properly used in some of these cases, good results probably would have been obtained. Most of the cases were severe crushing fractures and occurred in trainmen or men employed in the shops.

Less severe or uncomplicated cases as classified by Dr. Outland should be treated by the method he de-

scribes. However, in the fresh cases that show marked subastragalar joint involvement, marked deformity, and shortening, subastragalar arthrodesis with the foot in a good weight-bearing position is the method of choice. From an industrial point of view arthrodesis gives good results, allowing a large percentage of patients to return to their former occupations with a good functioning foot which is strong, useful, and without pain.

OBSERVATIONS ON THE METABOLISM AND TREATMENT OF
UNDERNUTRITION*

JAMES M. STRANG, M.D., PITTSBURGH

This study has not been directed to the relatively rare forms of specific dietary deficiency diseases. It concerns the very common condition in which a patient is found from 10 to 15 per cent or more below the ideal or average weight for his age, height, and sex.

One hears that many such patients eat large quantities of food; that they are thin because their ancestors were thin; that they have an unusual function of one or another endocrine gland, or of a metabolic center in the central nervous system; or, more colloquially, that "they do not get the good out of their food." If one or more of such conditions prevails in a patient qualitative changes in his metabolism must exist and these abnormalities must be large in order to account for the alleged energy losses. Accordingly much effort has been devoted to a search for quantitatively significant energy leaks.

Are the stomachs and gastro-intestinal tracts of thin people incapable of properly handling large food intakes? Observations have been made upon a series of 9 thin patients who were under strict hospital control for periods ranging from 3 to 14 weeks. The index of the efficiency of digestion which is used throughout is the ratio of the dry solids in the feces to the estimated dry solids of the intake. Table I summarizes the data according to the level of caloric intake. It will be seen that, although the caloric intakes varied from 2000 to 5000 calories per day, no appreciable variation in digestive efficiency was noted. From such data the conclusion may be drawn that the gastro-intestinal tract will handle efficiently any quantity of food which a subject can be induced to ingest.

Studies of the nitrogen exchange of 8 of these patients also failed to show any deviation from the well-established conceptions of protein me-

tabolism. No evidence of a dissipation of protein materials in the thin state was discovered. When the nitrogen intakes of the patients were increased coincident with the caloric increase, they responded with a slight increase in nitrogen output and a marked storage of nitrogen. In this series approximately 20 per cent of the nitrogen intake was stored. The evidence points to a very conservative protein metabolism rather than to an extravagantly wasteful mechanism as characteristic of the thin state.

Data regarding the basal metabolism may be readily collected. In general these patients had basal metabolic rates within the limits of normal. Seventeen patients averaged a rate of -6 per cent within the limits of $+16$ per cent to -21 per cent. Although the basal metabolic rates fell within normal limits, this was due to the

TABLE I
Efficiency of Digestion

Diet (Calories)	Duration (Weeks)	Efficiency (Per Cent)
2,000	2	92
2,500	2	94
3,000	18	94
3,500	7	95
4,500	2	94
5,000	10	95

fact that these patients had small body surfaces. The actual basal heat production averaged only 53 calories per hour or 1272 calories in 24 hours.

Another important fraction of the total energy output is the extra heat produced in the body as a result of the handling of food—the specific dynamic action of food. Many persons have felt that thin people waste a large fraction of their energy intake as the cost of handling food. Studies on this subject are particularly difficult to carry out. However, our observations indicate that the specific dynamic action of food is

* Read before a General Meeting of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 4, 1934.

the same in all persons regardless of the nutritional state. In this connection the total heat effect of the food eaten is considered and not only the influence upon the basal metabolic rate at any given instant.

There is at present no practical clinical method of determining the total daily energy output. The caloric intake necessary to maintain weight balance was approximated on a few patients. In all such instances the estimated total daily energy exchange was low. From the data obtainable regarding the total energy exchange and regarding the basal metabolism and the specific dynamic action fractions, which constitute a large percentage of this total energy exchange, it may be stated that the patients exhibited a definite economy of energy exchange. Certainly no evidence of a wasting of energy was discovered in these subjects.

Undernutrition has only one basic cause—inadequate food intake. In practice it is sometimes useful to recognize 2 forms of undernutrition which differ not in basic nature but in rate of development. Cases may be classified as acute or chronic undernutrition. In acute undernutrition a rapid loss of weight occurs, most commonly in association with some disease. In chronic undernutrition the condition develops more slowly, sometimes in association with specific disease but often without any concomitant pathologic condition. The nutritional state of a patient may vary quite independently of an active disease. In other words, whether a patient gains or loses weight while suffering from disease depends upon whether or not food can be ingested.

In general there are 2 guiding principles for increasing weight. First, the intake of food must be large enough so that there is a large excess of energy intake over energy output. The magnitude of this excess is the chief determinant of the rate of weight gain—the ounces per day.

TABLE II

Summary of 39 Patients

	Office	Hospital
Number of patients	21	18
Ideal weight	143 $\frac{1}{4}$	127
Initial weight	111 $\frac{3}{4}$	93 $\frac{3}{4}$
Per cent underweight	22	26
Duration in weeks	10.9	5
Average calories .....	.....	*3,320
Final weight	128 $\frac{3}{4}$	106 $\frac{3}{4}$
Weight gain	18	13
Rate of gain (pounds per week) ..	1 $\frac{3}{4}$	2 $\frac{1}{2}$

* 16 patients.

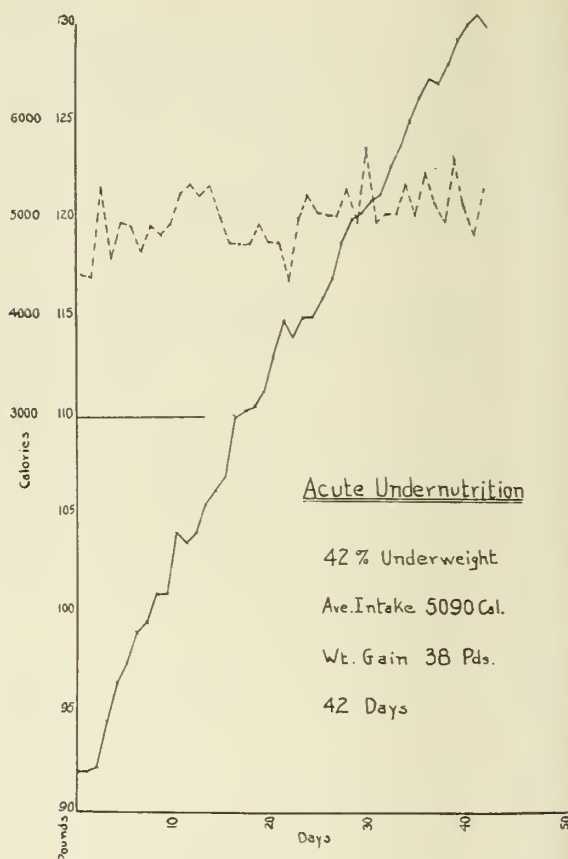


Chart I illustrates a case of acute undernutrition. This man, age 35, was first seen after a severe illness with pneumonia followed by empyema. He weighed 91 $\frac{1}{4}$ pounds although he was 5 feet 8 inches in height; he was 42 per cent underweight. The chart shows the progress in 6 weeks. The upper line shows the food intake, which averaged 5090 calories for 42 days. The lower line shows the weight gain which averaged 14 $\frac{1}{2}$ ounces per day. This man is unusual with respect to food intake and rate of weight gain.

The second principle is the persistent maintenance of this intake over an adequate period of time. This determines the total weight gain.

Some of the results obtained by the literal application of these principles are described briefly in Table II, which shows the summaries of 21 office patients and 18 hospital patients on whom the detailed metabolic studies were made. These series include patients suffering from many varieties of acute and chronic disease in association with undernutrition as well as many patients who were otherwise in good health. In the hospital series there was a slightly greater rate of weight gain although the patients were in general more ill than in the office series. Attention is called to the magnitude of the intakes of the hospital patients. Sixteen patients ate 3320 calories per day for 5 weeks and gained 6

ounces per day. It is perhaps of greater interest to describe specific cases than to deal with summaries and totals.

The complete preliminary study of a patient and the treatment of a coexisting disease, *etc.*, are matters which do not need consideration here. In fact many instances of undernutrition are found in association with intractable disease in which the nutritional state is of very minor importance.

There are many facts about foods which the patient must learn. He must learn the ordinary groupings of carbohydrates, proteins, and fats. He must learn to know high-powered from low-powered foods. The majority of these patients have long lists of unreasonable food dislikes. They must learn to eat a general mixed diet of adequate amount. In some instances it is possible to get a satisfactory result with a measured diet. For the best response a weighed diet is absolutely indispensable.

TABLE III

Composition of 3500 and 2500-Calorie Diets

Food	3500 (Grams)	2500 (Grams)
Oatmeal (Dry)	20	20
Vegetable (Group I)	100	200
Vegetable (Group II)	100	200
Bread	140	100
Fruit (Group II)	400	400
Fruit (Group III)	50	....
Potato	200	100
Cocoa	8	8
Sugar	46	25
Milk .....	....	100
Cream (20%)	400	200
Cream (40%)	100	....
Meat (Group II)	50	70
Meat (Group I)	55	75
Egg	50	50
Bacon	15	15
Butter	76	73

SUMMARY

Total Weight	1,810	1,640
Carbohydrate	301	205
Fat	222	135
Protein	75	75
Glucose Equivalent	367	264
Fatty Acid/Glucose	.64	.66

How much food is required for a satisfactory rate of weight gain? No single diet or menu will fit the needs of every patient. Table III shows 2 menus which were used on the patient whose case is illustrated in Chart III. A hasty review will show the main differences between the 2500-calorie diet on which she gained weight

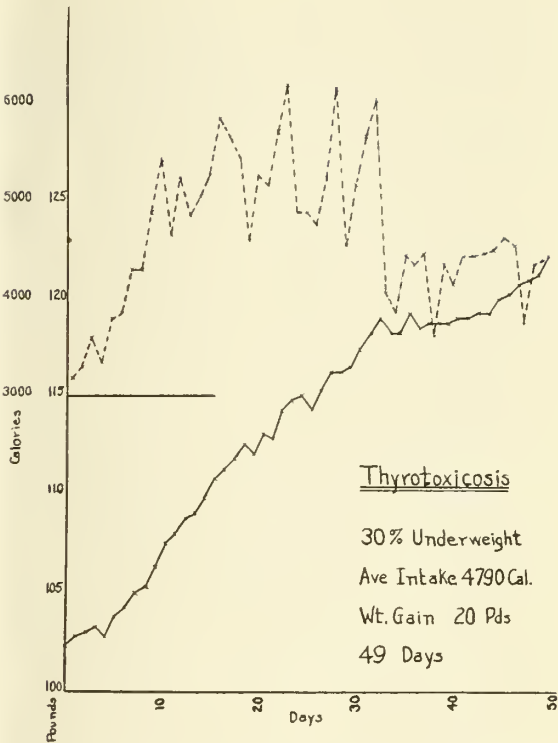


Chart II illustrates a case of acute thyrototoxicosis. The weight was increased 20 pounds before the patient was operated upon. On December 16 he weighed 102½ pounds or 30 per cent below normal. The intake averaged 4790 calories for 7 weeks. He gained 6½ ounces per day. Although the food intake almost reached the level of the case illustrated in Chart I, the rate of weight gain was considerably lower due to the higher rate of energy output. This patient serves to emphasize that the important feature is not the absolute level of energy intake but the excess of intake over output.

at the start but which was subsequently used as a maintenance diet, and the 3500-calorie diet on which she gained 1¾ pounds per week.

In addition to the diet, it is desirable to prescribe a definite daily routine. Precision as to time of meals, rest periods, and work periods is of great value.

A gain in weight of 15 to 20 pounds is not a matter to be considered lightly. It requires much tedious labor in the preparation of meals. More especially it requires hard work and much perseverance to eat 50 to 100 per cent more food 3 times a day for an extended period. Time is essential; nothing can be accomplished in 2 or 3 weeks. These programs almost always run into months. Reasonable difficulties must be met but no vacillation on policy is ever permissible.

Many persons will not gain in weight. The only basic cause demonstrable in our failures has been inability to get the patient to take suffi-

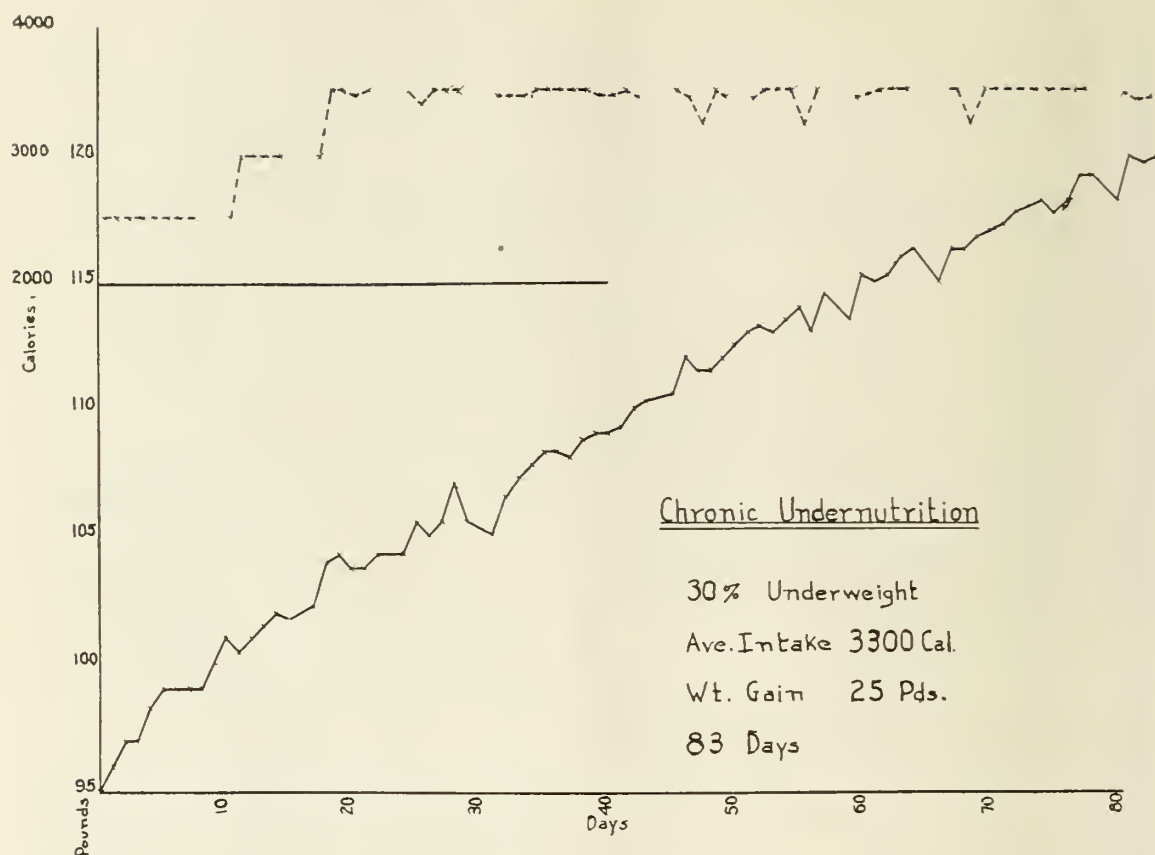


Chart III illustrates one of the commonest types of chronic undernutrition. This girl was a nurse holding a responsible position which involved long hours of hard work. For more than 7 years she weighed approximately 100 pounds. She was one of those tireless human dynamos on the job constantly. In the few months preceding treatment she had a series of sore throat attacks which culminated in a period of hospitalization. Her diet was started while in the hospital, her weight being 95 pounds or 30 per cent below

her normal weight. She stayed 5 days in the hospital and gained 4 pounds on a 2500-calorie diet. A week after discharge she returned to work. The diet was raised to 3000 calories and after 7 days to 3500 calories, which was continued for 65 days. This girl gained 16 pounds in 65 days while doing hard work. This patient was exactly the type which according to popular ideas cannot be fattened. This serves to illustrate the fact that a weight gain can be secured if only the patient is willing to strive for it.

cient food. The persistent ingestion of large food quantities requires a high degree of moral courage and an ability to take real punishment.

CONCLUSIONS

1. Undernutrition is a result of persistent inadequate food intake.
2. Weight can be put on any person free from an uncontrollable systemic disease who desires it sufficiently to make the necessary sacrifices.
3. A weight gain is not secured by the simple casual command, "go and eat more." It requires a knowledge of what to eat, a program of daily routine, the will to persist, and a guide who will take the time to detail the program and to supply mental and moral support for the necessary weeks.

ABSTRACT OF DISCUSSION

STANLEY D. CONKLIN (Sayre): In the study and management of the problem of undernutrition Dr. Strang has called attention to a most important condition, one which is not considered seriously enough by the majority of physicians. It has been the usual custom of physicians for years to tell their patients what not to eat. Today we are changing and advising them what they must eat to keep well.

For years there has been a gradual gain in the science of nutrition, but physicians have been slow to give this knowledge practical application. Of late medical men everywhere are more alert to the important part that proper nutrition plays in the prevention of disease as well as its treatment. Like other things pertaining to a better understanding of health, the layman's interest in proper food and nutrition is being aroused more and more. Physicians should be more active in preventing the uninformed from securing advice about a food and health problem from some new faddism.

It has been determined that undernourished people have just as good efficiency of digestion as normal per-

sons. Thus the patient can be assured that the diet as outlined is not going to overtax the digestive mechanism, a point often raised by the patient. Wang and others have conducted studies on both normal and undernourished children, concluding that the underweight child's absorptive power is equal to that of the normal child. Also they found that the number of calories absorbed varies directly with the intake for 24 hours.

Dr. Strang mentioned his observations in regard to protein metabolism, stating that the undernourished did not show any great deviation in this respect; in fact, he found a conservative protein metabolism. This is also the general opinion of other investigators.

In the study of undernourished children some have found that there was less nitrogen retention as the child gained weight, this indicating that probably the thin child had been undergoing a period of protein starvation due to a low protein intake and therefore needed a greater allowance of protein in the diet than the normal child. It has been recommended that the undernourished child should receive in his diet 4 gms. of protein per kg. of body weight.

There seems to be a definite body relationship between decreasing weight and the lowering of the metabolism. This reduction in the metabolic rate may be an effort at compensatory economy of oxidation in order to protect the individual from the evil results of starvation.

Another important conclusion which Dr. Strang brought out in his paper is that the specific dynamic action of the food is the same, regardless of the state of nutrition of the subject.

One of the most important points in the paper is the

conclusion that undernutrition has as its basic cause inadequate food intake. This being true, the proper understanding of dietary procedures by the physician and the fullest coöperation on the part of the patient in observation of the program should yield the desired results. As an example of what may be accomplished by adequate food intake in acute undernutrition, compare the state of nutrition of the typhoid fever patient today with that of the patient a few years ago when he was forced to combat his illness on an almost starvation diet.

In the case of the chronically undernourished individual who is free of any demonstrable disease, I agree with Dr. Strang that weight gain can be obtained by the persistent intake of sufficient food over a period of time. For many years the Guthrie Clinic has employed in selected cases a so-called milk treatment, the chief aim being a gain in weight. The results have been gratifying. The patient receives a certain amount of milk every half hour for 12 to 14 hours each day, the amount at first being 4 ounces. Later by gradual addition it often reaches 8 or 9 ounces, making a total of 7 or 8 quarts per day, or about a 4000-calorie intake. The duration of this milk diet is 21 days, and it is not uncommon for the patient to gain from 8 to 15 pounds during this time. One patient who was 6 feet 2 inches in height took 11 ounces per feeding and made a total gain of 23 pounds.

After the milk diet the patient is given a definitely calculated diet for several months. During the entire treatment the patient's daily routine is completely outlined, as this is a very essential part of the regimen. Many patients have continued in a much better state of health.

THE MANAGEMENT OF VERTEX OCCIPITOPOSTERIOR POSITION*†

R. E. NICODEMUS, M.D., DANVILLE, PA.

The vertex occipitoposterior position has always afforded the most troublesome complication in the practice of obstetrics. It is a complication which has been met with great indecision on the part of the practitioner and one in which the ultimate outcome for both mother and baby has been in a large percentage of cases thoroughly unsatisfactory.

Not only have the suffering of the patient and the general fatigue following labor been unduly severe, but there has been associated with the deliveries a high fetal mortality and considerable maternal morbidity. That the problem remains debatable in the minds of a large part of the profession is evidenced by the literature which, from time to time, suggests numerous new methods of conducting such cases. There seems to be the greatest confusion both as to the general method of meeting this complication and the

technic to be used when intervention becomes necessary. The usual descriptions of methods in textbooks and medical journals are quite unsatisfactory and confusing, and there is little wonder that the physician who conducts labor finds himself at a loss to know the best method to follow and is content to adopt the policy of watchful waiting as perhaps the safest procedure in his own hands.

We have not found the occipitoposterior position to be as complicated and difficult to handle as seems to be the general experience. In fact, we feel that we have been able to care for these cases in such a manner as to make them seem fairly simple in the large majority of cases. Our concern is why there is such general difficulty in managing the occipitoposterior position.

Whether or not a physician practicing obstetrics feels competent to perform an approved operation he should know the value of the operation and the proper time in labor when it should be performed. If in his judgment the operation is beyond the realm of his experience, it is nearly

* Read before the Section on Surgery of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 2, 1934.

† From the Department of Obstetrics, Geisinger Memorial Hospital, Danville, Pa.

always possible for him to secure aid from someone who has devoted more time and thought to such cases and he should do so and thereby give his patient the benefit of such consultation. It is a wise physician who recognizes and admits his own limitations in the practice of medicine. In obstetrics, more than in any other medical specialty, it seems that consultation is sought as a last resort and too often the consultant finds himself in the position of meeting a difficult situation which has resulted either from too long waiting or from previous interference on the part of the attending physician. Consequently, he is not able to attain satisfactory results, whereas if he had been able to manage the case earlier he might have found a comparatively simple situation and accomplished an easy delivery. Too great a delay in delivering a baby may complicate the delivery because of the fact that the uterus may become tonically contracted, so much so as to interfere with the procedure of choice, or the delivery may be performed at a time when the failing fetal heart and passage of meconium show that the baby is in such distress that it cannot survive the delivery, and postpartum hemorrhage may result because of extreme uterine fatigue.

Another point for consideration is the failure to make a diagnosis. It is doubtless true that a high percentage of vertex occipitoposterior positions are not diagnosed. The diagnosis, to be sure, is more difficult than that of an anterior position. This difficulty can be attributed chiefly to the fact that the fetal head is moderately extended in all of these cases and consequently the posterior fontanel, upon which one depends to a large extent in determining the position of the head, lies so far posteriorly and so high that it is very difficult to reach on vaginal examination. The attending physician needs to remember that there is this extension of the head in posterior positions. If on examination he palpates only the anterior fontanel, he should follow along the sagittal suture as far posteriorly as possible. In so doing he would unquestionably in the great majority of cases be able to feel the smaller posterior fontanel and therefrom make the correct diagnosis of position. Too frequently the physician attempts to perform a forceps delivery without making a diagnosis of position, applies the forceps blindly, and makes traction upon the head which is in an abnormal position; usually this is attempted without success. No physician should apply forceps and make traction in any case unless he knows definitely the position of the head.

Failure is occasionally dependent upon the

first stage of labor. In posterior position the first stage of labor is invariably prolonged, and if the patient is not relieved of her extreme pain and suffering with sufficient analgesia or anesthesia the physician is apt to yield to the appeal of the patient or her relatives to deliver the baby at a time when the dilatation of the cervix is insufficient and resistant. Attempts at delivery through an undilated and resistant cervix have, undoubtedly, resulted in many fetal deaths. Therefore, the solution to this lies in the administration of sufficient anesthesia to keep the patient oblivious of her prolonged suffering and in this way allow labor to progress until full dilatation of the cervix is accomplished.

Failure of the head to rotate from a posterior position and descend under the force of vigorous second-stage pains is not an indication for administration of drugs to stimulate uterine contractions. In fact, pituitary preparations and the application of a very tight abdominal binder only add insult to injury, and produce dangerous pressure upon the head of the child who already may be in distress. It is not fair to the baby to permit its head to be subjected to such unreasonable pressure when it is easily possible to correct the abnormality of position.

When the diagnosis of a posterior position is made and it is found that after a sufficient delay in the second stage of labor no progress is made, operative procedure becomes necessary. Of the numerous operative procedures which are employed in these cases, a few should be discussed briefly.

The method of attempting to deliver the head in the posterior position must be condemned simply because the only reason why the head did not descend spontaneously was because of this same posterior position. Such methods of delivery do not make the head follow the normal mechanism of labor and the necessary traction to deliver the head while still in this position should be considered entirely unjustified. It is our policy never to make traction upon the head when in a posterior position but always to consider such a position as an abnormality to be corrected. The same reasoning would apply to the method sometimes advocated of pulling the head down to a lower level of the pelvis and then rotating it with forceps. Let it be realized that the greatest amount of damage to the fetal head and maternal birth canal would already be done before the forceps rotation is performed. The abnormality of position should be corrected at the pelvic plane in which the head is arrested. The procedure of making traction and rotating the head at the same time must be condemned on account

of the possible trauma to the birth canal caused by the twisting or spiral movement.

Manual rotation of the head has been used successfully by a few obstetricians. The chief objection to this method lies in the fact that the fetal head must necessarily be elevated to a higher level of the pelvic plane when it is grasped by the whole hand inserted into the vagina and at the same time it is most apt to rotate back to its posterior position before forceps can be applied unless the fetal scalp is caught and held firmly by volsellum forceps—an unsatisfactory procedure.

At the Geisinger Memorial Hospital there is a very definite policy of handling the occipitoposterior position. There is no interference in the first stage of labor except in cases of emergency. By practically abolishing pain it is usually possible to have normal progress until full dilatation of the cervix is obtained. In the second stage of labor there is early interference. It is not considered that an occipitoposterior position is *per se* an indication for operative delivery. In a certain number of cases the head will rotate spontaneously in the second stage of labor, but it is possible to tell in a given case whether the head will rotate promptly, if at all, only after hours of hard labor. It should be possible to make this decision in at least one hour of second-stage labor. The results of delay may be serious, for delivery methods are more easily carried out when early interference is resorted to than after the uterus has become tonically contracted or after the head has become impacted if it is in the pelvic cavity.

If the head is above the pelvic brim or in the brim, internal podalic version is the operation of choice. This practically eliminates the use of high forceps, the only exception being an occasional case in which due to prolonged labor the uterus is so tonically contracted that it does not relax sufficiently under the anesthetic to make version seem safe. In these cases, which should be very rare, the delivery is accomplished by forceps rotation in the same manner as in those cases in which the head is in the pelvic cavity.

In cases in which the head has descended below the pelvic brim, forceps rotation is performed. The solid-blade forceps are used because the application is more easily made than with the fenestrated blades and is, therefore, usually more accurate, and the rotation of the head is more easily accomplished due to the smoothness of the blades. The pelvic curve of the forceps instead of complicating the rotation, as is sometimes thought, really facilitates it when the prop-

er technic is carried out. There is no advantage in straight forceps such as the Kielland.

The technic is as follows:

1. Manual dilatation of the maternal soft parts.

2. Cephalic application of the forceps. This is the reverse of the usual application inasmuch as the concavity of the forceps looks toward the sinciput, but the forceps are applied evenly over the sides of the head.

3. An attempt is made to bring the blades of the forceps in the long diameter of the fetal head by depressing the handles before locking them.

4. The forceps are locked and the handles raised and carried around in a sweeping circle in such a way as to keep the blades constantly in the same axis. At the end of the rotation the handles point almost directly downward, the rotation being continued until the occiput lies directly under the symphysis. There is absolutely no traction upon the head during rotation. Occasionally, if the head seems to be slightly impacted, it is loosened by a slight upward pressure.

5. After rotation and before the blades are removed, downward traction is made but only enough to fix the head in its new position and to prevent a return to the posterior position after the removal of the blades.

Until this time the patient has been completely anesthetized. The anesthetic is discontinued when rotation is completed so that the return of uterine contractions will not only help keep the head in its normal position but will facilitate the subsequent delivery. However, patients are never allowed to become in the least conscious.

6. The forceps are removed and reapplied as they would be to any normally placed head. In the reapplication it is important to apply first the blade which corresponds to the side upon which the occiput lay before rotation. If the other blade is applied first it may tend to throw the head back into its original position. After the reapplication, delivery is accomplished in the usual way, always by the use of axis traction. Axis traction is used not because it will give greater force as is sometimes thought, but because the greater accuracy in the direction of traction thus obtained means a diminution in the force required to deliver the head. The difference between the traction force required to deliver a head in a normal position and that required to deliver the same head in a posterior position is amazing. This is well illustrated by the not uncommon case in which very forcible traction has been made upon the head in an undiagnosed posterior position with absolute failure, and it is

found that after rotation as described delivery is accomplished with comparative ease.

The success of the forceps rotation depends entirely upon a strict adherence to the technic in every detail. We have used this method for 5 years and have found it so satisfactory that it has not been necessary to look for something better. In fact it has made the management of occipitoposterior-position cases moderately simple.

Geisinger Memorial Hospital.

ABSTRACT OF DISCUSSION

PROFESSOR ERWIN H. ZWEIFEL (University of Munich, Germany): The occipitoposterior position affects both the mother and the child. A very high mortality occurs in the children; there is also a high percentage of morbidity and mortality for the mother. The advice for conservative treatment is certainly wise because conservatism in a difficult case of obstetrics is the proper course to pursue. Naturally there is some difficulty in diagnosis, and it is absolutely forbidden to attempt a high forceps operation without a proper diagnosis. If a low forceps operation is attempted and the diagnosis should not be correct, it will not matter very much. If it is attempted on a high head, delivery may be very dangerous. I suppose Dr. Nicodemus meant that at least the head must have entered the pelvis and must be fairly fixed, because if the head is high and floating the forceps is absolutely contraindicated. If there is difficulty in diagnosis, the proper procedure is to try to make the diagnosis sure under anesthesia. This, of course, is necessary only when the head is still high.

Regarding treatment, if the forceps has been tried

and the head is not following, the head being about in the middle of the pelvis, do not pull but do a rotation. It is very important to try to apply the forceps in many cases in order to save the child. The kind of forceps used is not very important. Naturally the higher the head the more important it is to have an instrument which is not curved but which is straight. If the head is low the curve is useless.

It is quite important to apply the forceps as described and not in the old way, because of the great damage which often occurs to the child.

The manual rotation, which was mentioned, is practically useless. I have never been able to do it. When the head has entered the pelvis it is practically impossible to rotate it. After a little force is exerted it is best to try at once to rotate the head. Difficulty comes not so much from a little pulling as from the fact that it may be done in the wrong way. One little trick is to use either oil or liquid soap to lubricate the vagina.

Prophylactic version has also been mentioned; it is a very good operation when the indications warrant it. Prophylactic version should be done only in the case of a multipara and never in the case of a primipara. In the cases in which it is theoretically possible to perform a version in a primipara because of the vertex occipitoposterior position, the head is still above the brim of the pelvis. There will be a contracted pelvis, and it will be necessary to think not so much of the irregularity of the position of the child as of the treatment of the pelvis itself. In these cases it is necessary to wait until it is seen whether the head will enter. If it does not, it is a case for cesarean section.

It should be emphasized that these obstetric cases are often very difficult and require much experience as every case is different. They need great experience both in delivery and in after-treatment in order to get good results for both child and mother.

HYPOCHLOREMIA*

GEORGE MORRIS PIERSOL, M.D., AND WALTER G. KARR, PH.D., PHILADELPHIA

Within the past 20 years chemistry has taken an important place in the field of medicine. This has been due in large part to the development of micromethods for the analysis of various constituents of the blood and other body fluids. After a period of overemphasis on the value of chemistry in disease certain well-established assays and functional tests have become an integral part of the practice of medicine. Of these may be mentioned: Blood and urine sugar determinations in diabetes mellitus; the carbon dioxide capacity of the blood in diabetes, nephritis, and other diseases in which the acid-base balance is disturbed; calcium and phosphorus in diseases involving the bones; bile pigments in disease of the liver; and various forms of nonprotein nitrogen retention in kidney disease. Many other

chemical assays are of value in certain conditions and many others have been suggested, but their rôle has not yet been well established.

It is desired in this paper to present a particular disturbance of body chemistry in medicine which it is felt has not been emphasized fully enough in this country, although the French, Italians, and Germans have recognized it for some time as more or less a clinical entity. The condition under consideration has been designated hypochloremia because this is perhaps the main chemical finding in a syndrome which accompanies and seriously complicates various diseases and pathologic states. The complete chemical picture is one of low plasma chlorides, usually but not invariably a high carbon dioxide capacity of the blood, and an elevated blood urea nitrogen, all of which accompany a marked salt and water loss from the body which produces dehydration.

* Read before the Section on Medicine of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 2, 1934.

Salt or electrolyte may be lost through 4 main channels—the stomach, the intestines, the skin, and the kidneys. It cannot be too strongly emphasized that, if salt is lost from the body, water is also lost and *vice versa*, and that if one is replaced the other must be also. If salt and water are lost through the intestines, skin, or kidneys, the loss may not be particularly reflected in the blood chemistry; but if the loss is from the stomach it is accompanied by a loss of free hydrochloric acid which produces a hypochloremia compensated by an increase in the bicarbonate of the blood. The cause of the nitrogen retention in hypochloremia is uncertain; it may be the hypochloremia *per se*, it may be a simple concentration produced by the oliguria of dehydration, it may be temporary damage to the kidneys. Necropsy examination has shown quite consistently definite tubular damage and intact glomeruli. Although it may be incorrect to call this syndrome "extrarenal azotemia" it is definitely not nephritis, a term which indicates glomerular damage.

Vomiting is the important etiologic factor in producing hypochloremia, alkalosis, and azotemia. This syndrome has for a number of years been well recognized as accompanying the vomiting of intestinal obstruction, and the value of salt and water therapy is well established. More recently toxic manifestations with vomiting after bicarbonate in ulcer therapy have been associated with this syndrome. What has not occurred to the physician is that protracted or profuse vomiting from any cause may produce this picture. It is not recognized unless proper chemical examinations are made; namely, plasma and urine chlorides, the carbon dioxide capacity of the blood, and blood urea nitrogen; then, unless they are properly interpreted, mismanagement will easily follow.

The following rather typical case illustrates how diagnostic confusion and mismanagement may occur. A patient presents some albumin in the urine and a blood urea nitrogen that is somewhat elevated. Previous vomiting has occurred but has caused little concern. It is often interpreted as a little acidosis for which not infrequently some sodium bicarbonate is ordered. If the patient has not eaten for a few days, ketone bodies in the urine may further confirm the belief that acidosis exists. A provisional diagnosis of nephritis is made. Then an inborn and widespread fallacy calls immediately for salt restriction in the diet. Vomiting is aggravated, later the blood urea nitrogen is further elevated, more alkalies may be given, and finally the patient is in a state of coma. The blood urea nitrogen is 150 to 200 mg. and the diagnosis is uremia. To

combat this there is further salt restriction, and dehydration is increased by sweats. The proper laboratory examinations would have aided in diagnosing the case as one of hypochloremia, alkalosis, and azotemia. It should be noted that the blood pressure is nearly normal in these cases in contradistinction to that in nephritis. Salt and water therapy alone would have entirely corrected the condition; the therapy which was used only aggravated the mild original disturbance.

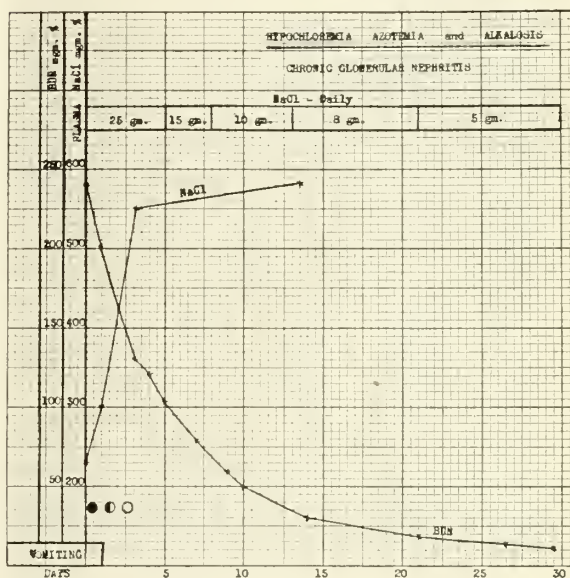


CHART I. Chabanier, Lobo-Onell, and Leln, *Presse med.*, 42: 844, 1934.

A few charts made from actual cases will best illustrate the way in which this syndrome has been a serious complication to existing disease.

CASE REPORTS

The history of the case of chronic nephritis referred to in Chart I is briefly as follows: In November, 1931, a man, age 20, developed a severely infected throat with glandular infiltration, which kept him in bed for 15 days. There were appreciable quantities of albumin in the urine and some edema of the face. He was placed on a vegetable diet with salt restriction, and the edema disappeared and never returned. The albuminuria decreased but did not disappear. He was seen again in August, 1932, when the blood urea nitrogen was 44 mg. per 100 c.c. His condition in general was so good that he dispensed with medical care for about a year. In June, 1933, the urine was clear, but the blood urea nitrogen had increased somewhat. He continued on a salt-restricted diet.

In August, 1933, vomiting became very pronounced and his condition rapidly changed for the worse. The urine was scanty and full of pus. A diagnosis was made of bilateral tuberculous pyelonephritis. On Sept. 29, 1933, he was in a serious condition. A diagnosis of uremia was made and he was moved to a hospital. He showed marked fatigue, torpor, emaciation, and a weak pulse. The systolic blood pressure was 70. He was

and nocturia for some time previously and attacks of headache and nausea for many years. During her stay in the hospital she began to have hematuria, probably of renal origin. After the sodium chloride therapy was instituted, vomiting ceased but diarrhea persisted intermittently for 11 days and was partially the cause of the rather large amount of salt needed for replacement. She was standardized to insulin and discharged in good condition 4 weeks after admission.

With respect to the treatment of this syndrome 2 points are quite obvious: First, that salt and water replacement alone corrects the condition; second, that the quantity of sodium chloride needed for replacement is much greater than almost anyone has been in the habit of using. It has been assumed by some that the hypochloremia was simply a transfer of chlorides from the blood to the tissues, but it can readily be seen from the salt balance that it is an actual salt and water loss from every tissue in the body and as such needs relatively large quantities for replacement. The customary 2 to 3 liters of normal saline that many are in the habit of using is not at all sufficient to alleviate the salt and water loss in these conditions of dehydration. Furthermore, subsequent fluid by mouth does not correct dehydra-

tion, unless sodium chloride is ingested, except as fortuitous additions to the diet may in time fully replace the salt lost.

The following summary of therapy is suggested as a practical way to replace adequately the salt and water loss from the body, especially when hypochloremia exists.

1. In vomiting and comatose patients there should be immediate slow continuous infusion of normal saline by hypodermoclysis or intravenously.

2. The normal saline should be supplemented by intravenous injections of 20 c.c. of 10 per cent sodium chloride every few hours. This hypertonic solution causes more rapid salt replacement and does not cause immediate harmful diuresis because of the dehydrated condition of the patient.

3. After this therapy has been continued for a few hours the comatose condition disappears and vomiting usually subsides. Then fluid may be taken by mouth to compensate for the salt given intravenously in hypertonic solution.

4. When nausea has abated and fluids are well tolerated, other methods of introducing salt and

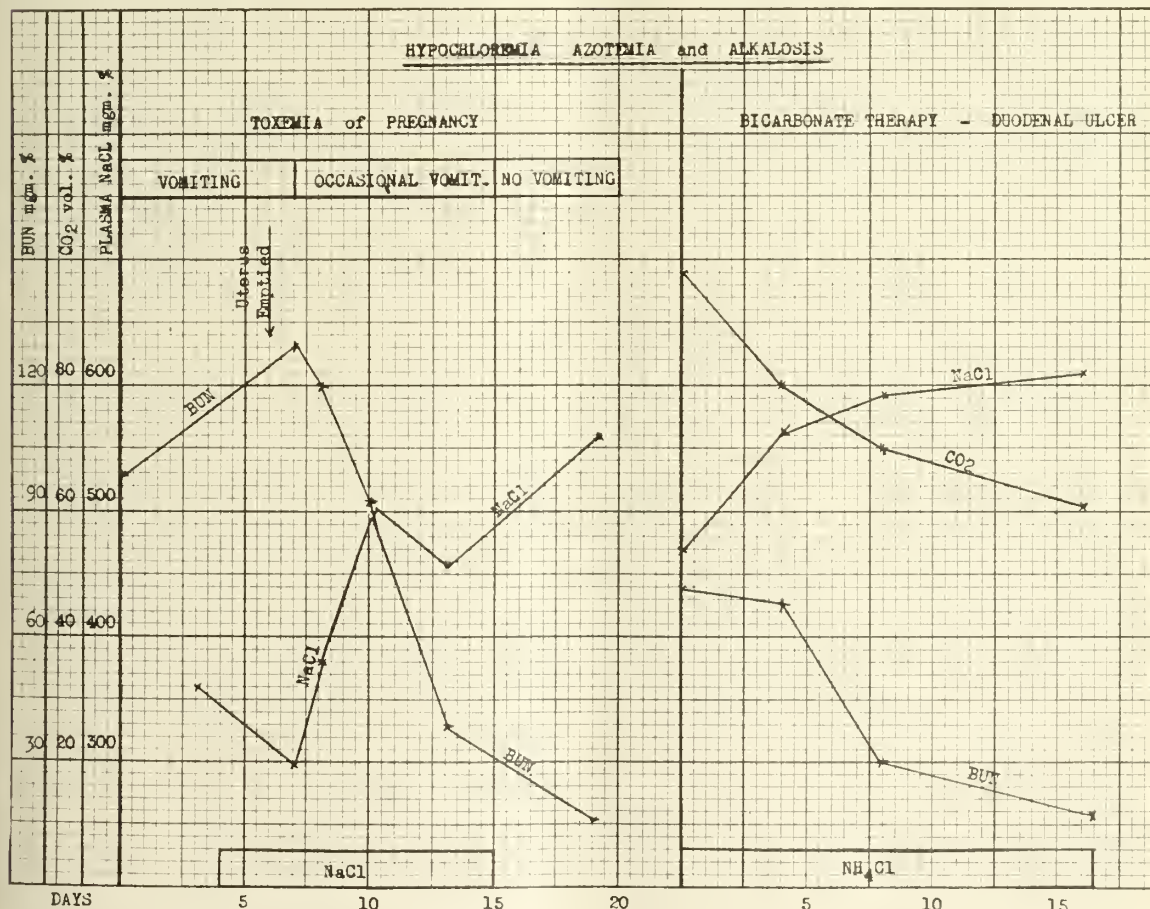


CHART III. Schwab & Walther, *Presse med.*, 41: 874, 1933.

CHART IV. Cook, *Q. Jour. Med.*, 1: 527, 1932.

water may be stopped and the introduction continued only by mouth. Twenty-five gm. of sodium chloride daily seems a satisfactory dose; part of this may be taken in the diet and the remainder by capsule. The patient will of his own volition drink 3 to 4 liters of water daily, and soon the kidneys will respond with active diuresis. As soon as this occurs the blood chemistry rather rapidly returns to normal and the syndrome is entirely relieved. It is obvious in intestinal obstruction that all fluids and salt must be administered intravenously or subcutaneously until the obstruction is removed.

if it is shown to be related to present or impending edema. Restricted salt intake becomes very hazardous if for any reason there is excessive excretion through any 1 of the 4 channels.

It should be emphasized that this is a discussion of a syndrome caused by salt and water loss from the stomach by vomiting; that the salt and water losses through the intestines, skin, and kidneys are just as great, are just as important, and need salt and water replacement in the same manner as has here been indicated.

SUMMARY

1. In all cases of protracted vomiting routine chemical analyses of the blood should be made for plasma chlorides, carbon dioxide capacity, and blood urea nitrogen. If these are not available the urine should be tested qualitatively for the near absence of chlorides. By means of these examinations a present or impending syndrome of hypochloremia, alkalosis, or azotemia may be recognized.

2. There are other diseases in which the salt and water loss is through the skin, intestines, or kidneys, which brings about in the organisms just as great a deficiency in salt and water; but the condition will not be reflected in the blood chemistry.

3. The quantity of salt necessary for replacement in many of these dehydrated conditions is much greater than was previously believed. The effective quantity is too great to be conveniently given subcutaneously. This method of therapy should be supplemented by giving hypertonic solution by vein, and salt and fluids by mouth as soon as possible.

1913 Spruce Street.

ABSTRACT OF DISCUSSION

FRANK ALEXANDER EVANS (Pittsburgh): I have not seen any case as severe as that described by Dr. Piersol but I do recall a patient, who had had no such difficulty before the onset of the illness, brought to the hospital by the physician when suddenly taken with severe cramps, vomiting, and an appreciable degree of shock. He had mild hypertension, had been worried, was losing sleep, and had been under tension for some time. At first the diagnosis seemed to lie between coronary occlusion and a gallbladder attack. On closer investigation, however, it was decided that it was nothing but a nervous attack with vomiting and diarrhea. In addition, the patient was spastic, crying with pain in the extremities. A diagnosis of hysteria was considered, but it seemed clear that the spasticity was nothing more nor less than the type of case Dr. Piersol described.

Minor examples of this disturbance occur. Post-operative vomiting sometimes occurs in a patient who has had respiratory difficulty during the anesthetic and who shows similar symptoms. These patients have often been given palliative doses of soda. Discontinu-

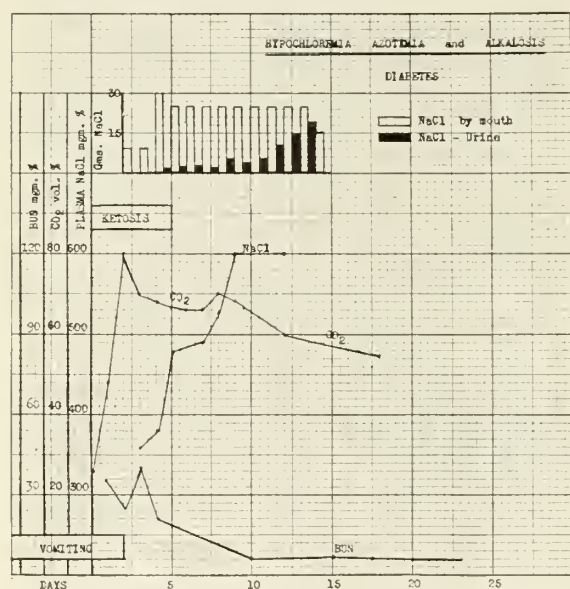


CHART V. Service of Dr. E. S. Dillon, Philadelphia General Hospital.

Although blood chemical examinations will usually give the information that ample salt has been replaced, a much simpler way is the analysis of a complete 24-hour urine for sodium chloride. Normally there is a sodium chloride balance and the amount ingested is wholly excreted in the urine. It is only when the amount excreted in the urine is approximately equal to that ingested that the lost chloride has been sufficiently replaced. If quantitative urinary sodium chloride analyses are not available, a simple qualitative test with silver nitrate and nitric acid will give considerable information. If hypochloremia is present the urine will show only a faint cloudiness; if ample chlorides are excreted in the urine it will show a voluminous white precipitate of silver chloride.

The only contraindication to sodium chloride therapy is the presence of edema, especially that of nephritic origin. Salt restriction in hypertension has not received general approbation. Moderate salt restriction in nephritis is indicated only

ance of the soda and a period of forced fluids results in prompt improvement.

Alkaline therapy has been instituted in pneumonia as in other infections, but it should be used with extreme caution in this disease. Although I have never seen in pneumonia such a condition as was described, I have often wondered why I have not under the circumstances

of inefficient respiration and often limited fluid intake. In addition to the major lesson in this paper there is also a suggestion regarding the use of alkalis in post-operative vomiting and in pneumonia.

A determination of the plasma chlorides and the carbon dioxide combining power in every case with persistent vomiting is of great help.

THE TREATMENT OF CHRONIC SUPPURATIVE OTITIS MEDIA*

KENNETH M. DAY, M.D., PITTSBURGH

It is not the purpose of this paper to present any new method of treatment for chronic otitic suppuration, but rather to classify the types of suppuration and deal with the methods of treatment which are generally accepted by our specialty at present. It is an unpleasant fact that there are entirely too many cases which fail to heal because of improper or faulty treatment. The indiscriminate douching of chronic suppurating ears is still advised and carried out by many members of the profession. We cannot condemn this practice too strongly. Whereas it may cure a few cases, it is worthless and often decidedly harmful in the majority.

In the simple forms of chronic suppurative otitis the perforation of the drum is central in type; that is, the margins of the perforation do not reach the periphery of the drum. The infection in these cases is usually confined to the mucous membrane of the middle ear and responds readily to treatment, cleanliness being the main factor. It is safe to douche and to use aqueous solutions in a suppurating ear if the perforation of the drum is of the central type. The object of douching is mechanical cleanliness and it should be employed only if the discharge is copious. Hydrogen peroxide often helps the cleansing process. Antiseptics which cause a precipitate or leave a sediment should be avoided. The aqueous solution of mercurochrome is a noteworthy offender, and cases in which it has been used will usually promptly clear up following the removal of the sediment left by it.

The chronicity of many of the cases with a central perforation of the drum is due to infection in the eustachian tube. This is particularly true if the perforation is situated anteriorly and if the discharge is mucoïd in type. Cases with tubal discharge are often very resistant to treatment and there may be recurrences with every head cold. Treating the ear alone in such cases is rarely successful as the source of the infection

is usually in the nose or nasopharynx. Adenoid tissue in or around the tube mouth is the most common cause of chronic tubal discharge and should always be looked for and removed. Catheterization and inflation of the eustachian tube is helpful, following which the secretions can be removed from the middle ear with a small suction tip. Alcohol and boric acid ear drops will control well some of these cases but in others there is an increased secretion. Some do better with the insufflation of dry boric powder.

In chronic suppurating ears with central perforations of the drums there is rarely any bony destruction and complications are quite rare. Therefore mastoid surgery in these cases is usually contraindicated. Roentgenograms frequently show a dense cloudiness or sclerosis of the mastoid process and not only the roentgenologist but also the otologist frequently interprets the findings as signifying infection in the mastoid process and advises operation. Wittmaack disproved this some years ago and his theories are generally accepted today; namely, that the sclerotic mastoid is not the result of a chronic infection but is a developmental abnormality, and that an otitis media in the presence of a sclerotic mastoid is predisposed to chronicity because of the lower resistance of the altered mucosa lining the middle ear.

Whereas the types of cases already mentioned are relatively devoid of danger, the next class is quite the opposite; namely, those cases with a marginal perforation of the drum, including those with a perforation into the attic through Shrapnell's membrane. In these cases the epidermis lining the external auditory canal spreads over the margin of the perforation onto the walls of the middle ear and attic in nature's attempt to replace the diseased mucosa lining these cavities with skin. Unless there is a free drainage outlet for the exfoliated epithelium it becomes piled up and forms cholesteatoma. The attic and antrum are ideal localities for this formation as they have a relatively small outlet to the middle

* Read before the Section on Eye, Ear, Nose, and Throat Diseases of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 3, 1934.

ear. Cholesteatoma is by far the commonest cause of the labyrinthine and intracranial complications of chronic otitic suppuration. It will erode through the hardest bone and not infrequently large exposures of the dura of the middle and posterior fossæ are found at operation. The horizontal semicircular canal is frequently eroded with exposure of the membranous canal and production of the so-called fistula. It is well known that water and aqueous solutions have a malignant effect on cholesteatoma causing it to swell and exert increased pressure upon the surrounding bony walls besides causing increased desquamation of skin and therefore an increased production of the cholesteatoma itself. Any case of chronic otitic suppuration with a marginal perforation of the drum and in which epidermis has spread into the middle ear or attic is a potential case of cholesteatoma and should be treated accordingly. A cure in such a case can be attained only if the entire cavity becomes lined with epidermis and moisture is excluded. Conservative treatment should be attempted on this class of cases only in the absence of any signs or symptoms of extension of the infection beyond the confines of the middle ear, attic, and antrum. For this reason the taking of a careful history is very important. I disagree with most authorities, who advise radical surgery on all cases with cholesteatoma, and have succeeded in getting dry ears in 80 per cent of the cases which I have treated conservatively.

The treatment of these cases is based on the following principles: First, mechanical cleansing; and, second, the elimination of moisture and secretions. Many years ago Prof. Siebenmann asked, "Of what avail is it to sweep out the corridors and leave the filth in the room?" The cleansing process may be best carried out by means of attic and antrum lavage with a 5 c.c. syringe and attic cannula followed by suction with a small pipette or cannula. In this way collections of cholesteatoma, crusts, and débris can be washed loose and sucked out. Only dehydrating or anhydrous solutions should be used for this procedure, the most effective being 95 per cent alcohol, ether, or carbon tetrachloride. Granulations must be completely eliminated by caustics, snares, or curettage, and also any secretions from the eustachian tube must be dried up. In the intervals between treatments the patients should use only dehydrating or anhydrous drops in the ear. The commonest kind of ear drops used is 95 per cent alcohol with or without boric acid powder. In a successfully treated case nature is merely assisted to accomplish the same result which is obtained by means of the radical

operation and skin graft; namely, to line the bony cavities with skin. Conservative treatment is inadvisable in young children because of the more rapid eroding effect of the cholesteatoma upon the softer and thinner bony walls, and because of the greater difficulty in obtaining a dry eustachian tube.

Recurrences of cholesteatoma and infection are frequent and to be expected if moisture reaches the middle ear either by way of the eustachian tube or external canal, but will promptly subside with treatment and the elimination of moisture. For this reason all patients whose infections have healed should report periodically for examination. These cases should be treated like the postoperative radical cavity, but because of the smaller cavity present and small opening to the exterior they must be watched more closely. The perforations frequently become blocked with scales or pieces of desquamated skin, which should be removed whenever found. These patients should be warned of the dangers of recurrences attending the introduction of moisture into the ear. Swimming and auto-inflation should be absolutely forbidden.

The radical operation is indicated if conservative treatment fails and should always be performed if the case presents any signs or symptoms of extension of infection beyond the confines of the middle-ear cavities. A dead labyrinth, the presence of a positive fistula test, or facial palsy are absolute indications for the radical operation. Excessive granulations and evidence of extensive bony necrosis are other indications. Particular attention should be paid to the presence of dull, unilateral headaches, changes in disposition, and mental fatigue or forgetfulness as these symptoms usually accompany an exposure of the dura, with or without an extradural abscess. The radical operation is clearly indicated in such cases or if deep pain is present which is not promptly relieved following 1 or 2 treatments.

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ABSTRACT OF DISCUSSION

GEORGE M. COATES (Philadelphia): Dr. Day has made a good classification of the cases—those in which washing can be used, and those in which it should not be used. In cases in which there is a central perforation it is permissible. The mucous membrane of the middle ear is never tolerant of watery solutions, yet there is not much danger in their use if there is no cholesteatoma, provided the ear is properly dried afterwards. Thick secretions should be removed. If it is easier to wash them away than to wipe them away, washing is justified even in cases of central perforation; but if aqueous solutions are used, the ear should

be carefully dried afterwards. For that purpose a dehydrating agent, such as alcohol or ether, and then heat in some form should be used.

In cases of cholesteatoma or marginal perforation, the situation is different. Moisture in the ear, whether it gets in accidentally or is introduced purposely, has a tendency to make the cholesteatoma swell and block drainage, and aggravate the infection already there. The cholesteatoma also may erode into the meninges, and very little extra activity will produce serious symptoms and complications. Therefore, water should not be used in cholesteatoma cases. Cholesteatomas do not always require radical operation, although radical operation should be done when conservative measures fail. Conservative measures should be used for a period of time, depending on the progress of the case; but when failure results, the radical operation should be resorted to as a life-saving measure, even though the patient cannot be promised that he will have a dry ear after the radical operation is done.

The mucoid discharge which comes from the eustachian tube can be controlled in 2 ways. Treatment of the pharyngeal orifice is of the utmost importance. It is important in any ear operation. The ear should not be considered as an organ by itself; the nasopharynx should always be examined and the pharyngeal area properly cared for. Many years ago Tillie wrote a paper on mucoid discharge from chronic ears in which he showed that by improper forcible nose-blowing great harm was done. He reported a large series of cases in which the discharge was controlled entirely by instructing the patient not to blow the nose through the ear. In the treatment of these cases it is important to bear this in mind. Furthermore, in intractable cases the Yankauer operation may be used to close the eustachian tube. It does no harm to the ear and closure may be secured so that the discharge of mucus through the perforation is stopped. This is an operation designed for a definite purpose, and although it is in the discard now it has its uses.

GEORGE B. JOBSON (Franklin): The presence of cholesteatoma is usually considered a positive indication for radical surgery. Nevertheless, I have been quite successful in its treatment by a method which I shall describe by illustrating a case.

A man, age 35, suffered from chronic suppurative otitis media of his left ear for 15 years. When he consulted me the discharge was cholesteatomatous, which was verified microscopically. The drum was destroyed and the middle ear contained a cheesy mass which had a foul and characteristically sour odor. A roentgenogram showed necrosis of the attic. The hearing was greatly impaired, and the patient complained of left-sided headache. Treatment consisted in removal of the cheesy mass from the middle ear with a curet and alcoholic sponges, followed by warm iodine vapor being generated in Dr. Well's vaporizer from his compound iodine formula and driven into the ear. This treatment was continued every second day with lessened discharge and odor. In 6 weeks a cast of cholesteatoma and débris was curetted out of the attic. There was a rapid cessation of all manifestations and recovery occurred after an additional 2 weeks' treatment.

DR. DAY (in closing): I have been using iodine vapor recently, and it seems helpful in one type of case with which we have been having trouble for years—that is, chronic otitis complicated with athlete's foot. A person scratches his foot and then his ear, and later he has a chronic running ear. We have not been able to cure these cases, but lately there has been marked improvement by using iodine vapor treatment in the attic. I have tried many different kinds of solutions for the saprophytic infections. The difficulty is that the saprophytes in the folds of the attic cannot be reached, and in a few weeks they recur. This is the reason these patients are not cured. In these cases there is no bone destruction, but there is a kind of pungent odor, exactly like that of athlete's foot.

PENNSYLVANIA STATE NURSES' ASSOCIATION

Better nursing service through improved standards for nursing education was the keynote of the Thirty-second Annual Convention of the Pennsylvania State Nurses' Association, held in Harrisburg, October, 1934.

The program of the association for the coming year, as indicated by the action and studies of the convention, will center around 7 major objects: (1) To secure a law in the coming session of the legislature requiring 4 years of high school work as a minimum for admission to nursing schools. Most schools now have that but the state law requires only one year of high school training; (2) every effort will be made to improve the standards of the schools and the preparation of the members of the faculty; (3) many of the speakers emphasized the need of a broader clinical experience for nurses before they enter upon the practice of their profession. It will be the purpose of our association to discourage the continuance of schools of nursing which cannot offer a comprehensive clinical experience, as well as a broad and exact theoretical course; (4) there is a wide divergence of opinion as to the amount of time which should be devoted to various subjects. The spread in requirements on some subjects ranges from a minimum of 8 hours to a maximum of more than 100; (5) the licensure of nurses. The association has not definitely committed itself upon whether or not nurses

should be licensed; (6) the association is also seriously considering a plan for the grading and classification of nursing schools. This grading could be done either by the Pennsylvania Department of Public Instruction or by the League of Nursing Education; and (7) for nurses in private practice the association will continue its educational program to put before the public the tremendous advantages which will accrue to nursing service through more reasonable hours of duty.—*Penn Points*, Dec., 1934.

An American visitor at Nice found luck running her way at baccaret. But the 70,000 francs she won weighed heavily on her conscience, so she opened the window of her hotel room and cast them out. A crowd quickly gathered and in the ensuing free-for-all the banknotes soon disappeared. A writer in *Le Temps* suggests that she was probably a rich woman, accustomed to handling only checks, and did not wish to soil her fingers with dirty bills. Perhaps her contempt for money was somewhat akin to George Sand's attitude. When some one reproached her with loving money too well, she replied, "Oh, no, it isn't the money I love; it's the spending of it." For soothing an uneasy conscience, the *Temps* writer wonders why a gift to a hospital or to the poor would not have been preferable to throwing money to the 4 winds. Of course, he adds, such an action would have received less newspaper publicity.—*N. Y. Times*.

A SURVEY OF STATE EMERGENCY MEDICAL RELIEF DURING ITS FIRST YEAR OF OPERATION AS SEEN BY THE PHYSICIAN*

MOSES BEHREND, M.D.,† PHILADELPHIA

When President Roosevelt declared in 1933 that an emergency existed similar to that of war times, he made it evident to the country at large that such conditions needed emergency measures. The financial depression with its attendant increasing unemployment, with people discouraged and panicky demanded that something be done, and done quickly. The people, moreover, realized that in President Roosevelt they had found a real leader, and the response to the measures he instituted to meet and combat the emergencies, namely, the F. E. R. A. or the Federal Emergency Relief Administration, was whole-hearted and praiseworthy.

Many of the relief measures such as the dole, for instance, were new and contrary to our form of government. Still there was the emergency demanding heroic measures, and as always the members of the medical profession rallied to the assistance of their government. Federal Relief Administrator Hopkins said from the fullness of his experience and knowledge, "It is a grand story, the work the physicians did for the unemployed from 1929 to 1934."

The poor we have had with us always, and these, year in and year out, the medical profession has succored. But to this class was now added the group who were poor through no fault of their own; whose daily wage had stopped because there was no work for them to do; who wanted desperately to work in order to protect their own from need as well as to care for them in illness. Moreover, the medical profession depended on this group for support in the private practice of medicine. And the government, desirous of maintaining the various groups of citizens in a state of economic independence, did not want to jeopardize the economic existence of the medical profession by letting them assume without compensation the entire care of the health of the unemployed. The result was the government's promulgation of the "Rules and Regulations Governing Medical Care Provided in the Homes of Recipients of Unemployment Relief." One of the most important provisions in this document was the recognized principle by the government—the principle we have contended for in all the plans and counter-plans pertaining to the much discussed subject of socialized medicine—namely, the principle and

value in the practice of medicine of the personal relationship between physician and patient. It was also provided that medical relief be arranged for by agreement between the relief administrations and the organized medical profession. This was to protect recipients of medical relief as far as possible from quacks, and to protect the government from those who might exploit the poor under this service.

In Pennsylvania, the emergency medical relief program was launched under the direction of Dr. Harold A. Miller, Harrisburg, in December, 1933. It provides for medical, dental, nursing, and pharmaceutical service to the sick unemployed, in their own homes or at the office of their physician or dentist. While the immediate direction of this form of relief is controlled by a physician, naturally the actual direction of the work is under the supervision of the Emergency Relief Administration of which Mr. Eric Biddle was the executive director; he has been succeeded in the present administration by Mr. Robert L. Johnson, and let it be stated that, although the application of the conduct of medical emergency relief was under the supervision of Mr. Biddle, nothing was done without the advice and consent of Dr. Miller, the director of Emergency Medical Relief. The Medical Society of the State of Pennsylvania, coöperating with those in authority on emergency medical relief, sanctioned the organization. As a result, ex-president Guthrie appointed a Medical Advisory Committee of the State consisting of Dr. George L. Laverty, Harrisburg, chairman, and Drs. Walter F. Donaldson, Pittsburgh; Charles H. Smith, Uniontown; Henry T. Price, Pittsburgh; and William Egbert Robertson and W. Burrill Odenatt, both of Philadelphia. In 60 of the 67 counties of the State there was appointed by the president of the local county medical society an Advisory Committee to the County Emergency Relief Board. This medical advisory committee is responsible for the quality of the sickness service rendered the unemployed.

Medical emergency relief for the unemployed is at best an experiment. It came into being suddenly, and what is more natural than that misunderstandings might arise between the profession and the officers in charge? While harmony usually seems to prevail between the State Advisory Committee and the director of Emergency Medical Relief; this cannot be said of all

* Read before the Pennsylvania Conference on Social Welfare, Feb. 22, 1935, in Pittsburgh.

† President, The Medical Society of the State of Pennsylvania.

the various county committees in their relationship to the parent body. Some physicians feel personally humiliated, and hence are averse to treating patients on medical relief. Though they themselves are in need, they have often refused to treat these cases when handed an official medical relief order. The cause for this refusal was explained to be due partly to the failure of the administration to pay bills as rendered by the physician for services given. More controversies have arisen as a result of the arbitrary reduction of bills of physicians than in any other single department of the Emergency Medical Relief Administration. It does seem to those of us having the highest ideals of the practice of medicine at heart that it is a distasteful and most disagreeable occurrence. This questioning of bills rendered is nothing new to us, because in the application of the Workmen's Compensation Law the insurance companies have always aimed to reduce the amount of the physician's bill. It is a well-known phase in our business administration, to which physicians unfortunately have always been subjected by the laity. I am optimistic concerning the physician's honesty and believe that his charges are commensurate with the service he renders. Naturally the director, concerned as he is with the conservation of state funds, may differ with us. The local committees, however, contend that they are better qualified to determine the proper charges of physicians than the state administrator. This I believe to be true, especially since the county committees are composed of physicians of the highest repute. Although physicians have been remunerated to the amount of more than \$1,500,000 since emergency medical relief was instituted, it is gratifying to know that less than one-half of one per cent have been accused of overcharging for their services. You may be surprised to hear a fact that is very gratifying to us, namely, that the recipients of emergency medical relief in Pennsylvania during its first year of service took their medical orders to nearly 10,000 different physicians who are in private practice.

The complaint that physicians overtreat medical ailments and, therefore, make unnecessary visits resolves itself after all into the matter of personal equation for both physician and patient. On the one hand, the physician may honestly believe that the visits he makes are absolutely essential in the proper conduct of the case. On the other hand, each patient does not react alike to similar ailments; hence some may demand more attention than others with the same affliction. This is a common and age-old experience in private practice, as well as in emergency med-

ical relief, and it should, therefore, be taken into consideration before bills are modified as to their amount.

A very laudable step may be the future closer affiliation of the Emergency Child Health Committee with that of the Emergency Medical Relief Administration. The former is entirely a voluntary service on the part of physicians without any remuneration. Under emergency medical relief, however, the physician is entitled to \$20 for 10 visits to the home and a fee of \$1 for office visits. For maternity cases, prenatal and postnatal care included, the physician is allowed \$20, although emergency obstetric cases may not exceed the sum of \$8.50. Chronic cases, such as heart disease, diabetes, and others, are treated on an individual basis. Visits are limited to one a week for a period not exceeding 2 months, when a renewal must be applied for. There is no additional remuneration for the hundreds of doctors who must travel 10 or 20 miles to render services to the sick on relief in country districts.

It may occur to some to ask, "Why are not those physicians serving on the emergency child health program paid for their services the same as those under emergency medical relief?" Emergency medical relief is for the unemployed only.

In the administration of anything as vast as emergency medical relief in a state so densely populated and so industrially centered as Pennsylvania, it is absolutely essential to have the closest coöperation between the patient, the physician, and the director. Any slip in one cog of this great wheel destroys the efficiency of the whole machinery. Doctors frequently dislike the clerical work imposed by any form of regulated practice; nevertheless, they should present their bills promptly to the Emergency Relief Administration, which demands that such bills be submitted before the fifteenth of each month. Again, these physicians must be willing to abide by regulations once they accept cases under the Emergency Relief Department rules. No less must the patient coöperate by being satisfied with the minimum of adequate service.

Since the institution of emergency medical relief, many unforeseen conditions have arisen which demand some changes concerning the administration of this relief; for instance, the treatment of fractures. There is practically no fracture that can be considered firm and healed within 2 weeks after injury. The same can be said of other accidental conditions such as burns of the second and third degree, which may demand a renewal of the medical order. These

matters have received the attention of the director. Finally, it is gratifying to perceive that in Pennsylvania, under emergency medical relief, the relationship of physician to patient has been retained, the right of the patient to choose his physician has not been abrogated, and the right of the patient to change his physician under certain circumstances and with the consent of the local board has been retained. All these points are desirable in the practice of the various

healing professions represented here to-day. These groups are the only ones qualified by experience and training to guide and control suitable plans for the provision of sickness services.

It is our earnest hope that we shall be able, with improvement in social and economic conditions in the next few years, to bring to a successful termination emergency medical relief.

1738 Pine Street.

THE STATE EMERGENCY MEDICAL RELIEF*

As Seen From an Administrative Viewpoint

HAROLD A. MILLER, M.D.,† HARRISBURG

For the first 3 or 4 years of the depression the physicians continued their traditional free care to the indigent. Soon after the adoption of Federal Rules and Regulations No. 7, the State Emergency Relief Board was contacted by a committee of physicians representing The Medical Society of the State of Pennsylvania with the result that medical relief was instituted in Pennsylvania Dec. 1, 1933, in accordance with the Rules and Regulations prepared jointly by the State Emergency Relief Board and The Medical Society of the State of Pennsylvania. In effect the Rules and Regulations epitomize Federal Rules and Regulations No. 7, which implies a common sharing of a common risk, the community's share, through the agency of the emergency medical relief, being what on the average is a "not-out-of-pocket" compensation to the physician, dentist, nurse, and pharmacist—those engaged in a humanitarian obligation.

The difficulty of even approximating the medical care which would be necessary for the individual, family, or community was recognized. Specific allocations to counties for medical relief was not attempted and experience has demonstrated the wisdom of this decision. Epidemics and other catastrophic conditions, which have been experienced in certain localities, would have exhausted funds allocated to those particular counties, but with state-wide distribution and central control unusual medical conditions occurring in any community were cared for. A complete health service was not provided or even attempted. Treatment was limited as follows:

"Medical, bedside nursing, and dental care shall not ordinarily be authorized by Emergency Relief officers

* Read before the Pennsylvania Conference on Social Welfare, Feb. 22, 1935, in Pittsburgh.

† Director of Emergency Medical Relief, State of Pennsylvania.

for conditions that do not cause acute suffering, interfere with earning capacity, endanger life, or threaten some permanent new handicap that is preventable when medical care is sought."

The Rules and Regulations also called attention to a minimum compensable service and economic limitations as to costs. This necessitated limiting the compensable period of medical orders given for particular conditions or diseases, the physicians agreeing to continue treatment if the patient's condition so demanded.

The existing emergency medical relief needs necessitated an overnight set-up in contradistinction to the slow and difficult development of a community consciousness and its responsibility for medical relief. Social needs successfully challenged the indifference of the community to the life and health of the masses.

Physicians were imposed upon throughout the year because of the fact that the program was not fully understood by the case workers or visitors, and many relief recipients believing the doctor would be paid for any and all medical services rendered consulted him for minor and even imaginary ailments which were not in the emergency medical relief program, hence were not compensable.

Dental work, usually much neglected by the indigent and low-income groups, being made available on an emergency basis, caused unusual demands by the relatively few who availed themselves of the service although it never has, nor does it now, reach more than a very small proportion of those for whom it was intended. It was too much to expect the relief recipients, case workers, social workers, relief administrators, nurses, dentists, and physicians to understand fully the extent and limitations of the emergency medical relief program without having been sensitized to it prior to its inauguration.

It has been difficult to develop a uniform basic point of view and procedure converging toward common principles and practices. The taxpayer objected to his ever-increasing burden; the Relief Board met statutory limitations in raising funds; individuals or groups of relief recipients brought pressure to secure, without effort, medical attention and other wants, looking upon the state as a legitimate and responsible agency to supply all needs.

Splendid coöperation has been given by the officers of the Pennsylvania medical, dental, nurses, and pharmaceutical associations through their respective committees as demonstrated by the fact that 9800 physicians, 7000 dentists, and a fair percentage of the nurses have participated with the thought of meeting the emergency, knowing in advance the inadequacy of the compensation to be received and realizing that by this participation they were contributing more than their full share to the relief program. It is to their credit that not one single case of proven neglect has come to the attention of this office.

For the first year of operation, Dec. 1, 1933, to Dec. 1, 1934, total payments were made as follows:

Physicians	\$1,211,314.52	74%
Dentists	 247,424.76	15%
Druggists	 111,814.58	7%
Nurses	 63,576.20	4%
	\$1,634,330.06	100%

In the gross these figures seem large, but they represent only .04 of 1 per cent of the income of the citizens of the state. They represent an annual cost of \$3.63 per family for the year or an annual cost per person of 80 cents for medical services, 16 cents for dental services, 8 cents for drugs, and 4 cents for nursing services. These figures, based on the average number of cases on relief, tell the story of economic limits, the incomplete emergency service, and the contribution given by those engaged in the healing art.

It is to be borne in mind that this represents money paid for work done under the Emergency Medical Relief Administration on medical orders. In addition, there has been distributed to the physicians in the different counties a very considerable sum of money as the result of transient examinations and salaries paid to shelter and camp physicians.

One thousand dollars a month has been allocated by the state for payment of Works' Division medical referees, each county receiving its proportion in accordance with the number of relief cases, the amount of work done, and the responsibility entailed. These men are called

upon to render decisions as to whether or not the injured individual is receiving adequate medical care. It is for this consulting service that the honorarium is given, although it does not deprive the referee of compensation when a personal contact with the injured individual is necessary.

The Works' Division has had as many as 100 accidents in a day. For the surgical work necessary to restore the injured employee to his usual physical condition, if this is possible, the physician is paid in accordance with payment for like service to those in the same social strata.

Persons on work relief are eligible for medical care on a medical order. No budgetary allowance is made for medical attention when cash relief is given, hence in counties where cash relief is now in operation the individual is entitled to a medical order.

Nursing service in urban centers is of good quality although inadequate in amount. When given in the isolated rural districts it represents in nearly every case a contribution of both time and money by the nurse. As a class their contribution has been even greater than that of other groups. In addition to the nursing service rendered to relief recipients, a few nurses are employed in relief offices and as liaisons between relief recipients and the physicians.

The unknown factor of cost necessitated a strict application of the limited service provided. In general it is estimated that \$30 to \$35 per year is necessary for a complete health service, which would include medical, dental, and nursing care, and drugs. With 421,000 families or 1,800,000 people now on relief, however, such health service would cost the State of Pennsylvania approximately \$50,000,000 for the year, an amount much in excess of the present or probable future economic limits.

It must be admitted, and I wish to emphasize the fact, that the value of the free service given by those engaged in the healing art exceeded the total amount paid by the Emergency Medical Relief Administration for medical care to relief recipients. Physicians have given a vast amount of free service to the low-income group, the total of which I would not attempt to estimate.

The few unthinking medical men who have accepted money from recipients of cash relief can be depended upon to correct their error, for traditionally the physician does not take bread from the needy as compensation for the relief of human suffering.

A complete health service, if and when given, must begin with prenatal care in order that the prospective mother may be safeguarded during

her pregnancy and at the time of her labor, and be restored to her normal physical condition at the end of the puerperal period. The unborn child must have consideration for its physical needs. The proper food must be given to the mother that she may in turn give to her unborn infant the materials from which it can make muscle, brain, and brawn. Infancy and early childhood must be supervised to prevent deficiency diseases. In most instances vaccination and immunization are desirable in the preschool child. Operations to correct physical defects and deformities should be a part of the program if we are to expect a normal mental and physical development. Psychiatric examinations and I. Q. tests should be made at intervals, and vocational advice given prior to the time the individual is definitely committed to a line of endeavor for which he may be entirely unfitted. Preventive medicine, especially for degenerative diseases, needs to be included with the thought of prolonging the period of physical fitness.

The physician should have available clinical consultation and laboratory service so that any and all suggested examinations could be made and the results of the same reported to the attending physician in order that he may arrive at an accurate diagnosis and be guided in treatment. For this service the clinic should be paid. Hospitals are absolutely essential for some serious illnesses; at times the patient's best interests can be conserved only by hospitalization. Surgery should be done in hospitals and by physicians who are capable of performing the particular operation necessary. The hospitals and physicians should both receive compensation for these cases, although eligibility must be standardized and remain a matter for determination by the Relief Department.

Roentgen-ray service should be available. Fractures treated without the benefit of roentgenograms, taken both at the time they occur and at the termination of the treatment, cannot be considered as being adequately treated. Laboratories for this service must be selected very carefully in order to insure the adequacy of the service and the dependability of the report. Laboratories in the office of the individual physician cannot be maintained without excessive cost; they are uneconomical. On the other hand, laboratory service furnished to a group reduces the examination cost to the point where money paid to insure a correct diagnosis and prompt institution of proper treatment would be money well spent.

The traditional altruism of the medical profession brought about a willingness on the part

of the public to look upon free medical care as a duty of the doctor. In the past each and every doctor cared for the indigent in his own community. They cared for those who had seasonal or casual employment and those previously engaged in trades now nonexistent because of technologic developments. Hospitals, when first established, cared for the sick among the homeless poor and the physician gladly gave free service; but with their expansion to the point where every comfort is available and every service paid for by the individual or community, free medical service is still expected from and given by the physicians. Clinics at first were emergency first-aid stations, then admitting departments of hospitals, and now have so expanded their fields that the masses feel that free medical care at the clinic is their right.

It is thought by some that it would be better if the state appointed certain hospitals and physicians to take care of the relief recipients. It is contended by them that a better control could be maintained over both the quality and the quantity of the service. This, however, would abolish the traditional physician-patient relationship, which means much to the family and is not an outgrown shibboleth. The only admitted exceptions are those individuals or families who move about from one community to another and never establish a physician-patient relationship. This condition prevails in congested districts, but the cherished personal relationship between the physician and family should not be lost. Medical care by the family doctor to relief recipients has played a prominent part in preventing a social upset. The personal interest of the private physician is important in the treatment of patients, particularly if the ailment may be due to dejection attributed to the fear occasioned by insecurity.

The administrator has been relieved of the responsibility of passing upon the professional skill and ability of the particular physician, dentist, nurse, and pharmacist by the respective state boards and the officers of the respective organizations, with whom we consult when the question of quality or service arises.

Traditional free service by the doctors and hospitals, and the expansion of clinics, plus the depression, caused the income of the doctor to vanish and necessitated the entrance of emergency medical relief with the thought of stemming the tide of economic disaster to those engaged in the healing art.

The results of the first year of emergency medical relief can be summarized as follows:

1. There were no failures to dramatize, no

trusts betrayed, no deficiencies exposed; it was simply a work-a-day job by those who have not complained when the going tried the body and searched the spirit.

2. It has brought about coöperation between groups engaged in the healing art.

3. Members of the different groups are now working for the good of the whole—relief recipient, medical attendant, taxpayer.

4. Present free medical attention or services given to relief recipients must not be permitted to become dangerous to self-reliance or debili-

tating to the moral and physical structure of our social life. All groups, including the taxpayer, now recognize that the extension of free medical care beyond the indigent group would result in a spiritual and moral degeneration destructive to personal responsibility for the necessities of life.

5. The accumulated experience can now be used as a basis for the correction of the inadequacies of the program and for its expansion.

State Emergency Relief Board.

ORGANIZED MEDICINE AND SOCIAL INSURANCE*

F. F. BORZELL, M.D.,† PHILADELPHIA

The tremendous economic stresses applied in the last 5 years have been such as to demand our whole strength in the effort to carry on. This has been particularly true of the medical profession. Society, in an effort to lessen the strain and in the hope that some outlet could be found that would forever make impossible similar experiences, has shown tendencies to accept certain economic panaceas, largely in the form of various types of social insurance. The medical profession has been particularly agitated by recommendations for state and nation-wide readjustment of the prevailing economic relationship of patient and physician. In the serious concern for the maintenance of our professional integrity, we have perhaps momentarily lost sight of certain correlated phases that should demand serious consideration.

In the April, 1934, *Bulletin* of the American Medical Association, in a report by the Bureau of Medical Economics on "A Critical Analysis of Sickness Insurance," the following statement is made:

"However unemployment, old-age, invalidity, accident, and sickness insurance may seem to differ, they are all essentially insurance against poverty, to which the particular happening is but a contributory cause."

The old order changeth. This would appear to be the dominant note of social movements in America to-day. We have become so familiar with certain words and phrases bandied about on the tongues of sociologists, social workers, uplifters, etc., that many of us have thoughtlessly accepted them and their implied significance as profound truths, prophetic of a new day when

all shall be peace, when the sordid struggle for existence shall have become but a painful memory, when all men shall have attained that Elysian field, that Utopia called "security," a condition in which all social differences, economic inequalities, and cultural variants shall have been integrated into a well-coördinated community of interest, when at last the lion shall lie down with the lamb and the swords be beaten into plowshares.

This paradise, this Nirvana, this Garden of the Gods will be reached not by any process of evolution, not by what science has learned to recognize as the basic laws of growth, but by a revolutionary disregard of those laws which history, science, and logic have taught us to be fundamental principles of human progress. That inexorable, efficient teacher, experience (history), they would have us believe, is a doddering old fool, a simpering idiot, stubborn in his senility, who should be buried with the ceremonies worthy of an outcast.

From our halls of learning have come in recent years a host of self-styled sociologists whose profound ego is born and nurtured of pseudo-scientific lore called "sociology and social economics." They hesitate not to enter the laboratory, the workshop, the legislative halls, the cathedral, the schoolroom and the sick room, and with the self-assurance of ignorance, attempt to apply their theories and administer their panaceas. All this is done in the name of security—social security, religious security, health security, economic security, and even biologic security.

Any attempt to adjust the individual to a social system that does not take into account the immutable fact that man is psychic as well as somatic or vegetative is a disavowal of the basic principles of life. Such attempts place a premi-

* Read before the Fifth Councilor District Commission meeting of The Medical Society of the State of Pennsylvania, held at Harrisburg, Jan. 30, 1935.

† Chairman, State Society Committee on Medical Economics.

um on mediocrity and become leveling processes by which the inferior is exalted and the superior reduced to a common denominator of average or mediocrity. This would seem to be the aspiration of those who would, by some weird alchemy of so-called social reform, remove forever from life the necessity for struggle and combat. That is, they would eliminate all tension from the life of the individual. True it is that tension may be raised to the breaking point, but is not strength measured by the degree of resistance to tension, and is it not true that without tension we can have no growth? If life were a Utopia, all physical laws would of necessity be arrested and existence would be a meaningless void. This postulate becomes concretely evident when one surveys those fields in which man has made real progress. A basic principle governing a single phenomenon must logically apply to a combination of similar phenomena. The structure of our social life is such that its evaluation is determined by the composite, resulting from the intimate admixture of each basic unit, and the mass (society) is strengthened or weakened by exactly the same laws that govern its integral parts. Therefore, if tension or stimulus is necessary for the growth of the basic unit, no combination of these units can grow without similar tension or stimulus. The corollary of this would be that complete removal of this tension or stimulus will result in stagnation and death. It would seem quite logical, then, to postulate that to attempt to improve society by measures which tend to lessen the growth stimulus is to defy a basic law and can only result in retrogression. In other words, a refusal to accept this law is to invite disaster. Much as man, in his moments of fatigue, might desire to be released from the struggle, it becomes suicidal for him to cease struggling. Society, therefore, must accept the necessity for eternal struggle if it expects to live and grow. Any other hypothesis is a defiance of laws beyond the power of man to change. Social progress can be attained only by social struggle, and since society is a composite, a grouping of its basic units, its progress is dependent on the degree of tension applied and resisted by the individual. Hence, society cannot hope to progress without some individualistic effort.

In our efforts to improve man's social status, we must recognize the laws that govern growth, for healthy growth will be manifest only in direct proportion to our conformity to these laws. A striking example of the effect of failure to recognize this fact is shown by a comparison of the rapid growth of our own country, in the relatively few years since its foundation, with

the growth manifest in Europe during the same period. **Our history is marked by a constant struggle by individuals against tremendous odds, resulting in accomplishments never equaled in the world's history.**

The field of medicine and medical service alone presents a parallel that vindicates on one hand and condemns on the other. Medical progress in this country during the past 50 years has been so phenomenal that to-day we are the teachers instead of the scientists of Vienna, or Freiburg, or London. In that same period, Europe has shown no such advance. Medicine, because of the stimulus characteristic of individualism, has advanced in this country, while in Europe a definite decadence has been witnessed during a period marked by the establishment of various types of regimented medical service in the form of compulsory sickness insurance. A comparative study of morbidity statistics reveals a definite increase steadily mounting in Europe, while our records show progressive improvement. However, a comparison of European and American medical service is apt to be misleading because of the lack of a common starting point. Never has Europe enjoyed the same high level of medical service that is available to the mass of American people to-day. What might be looked upon as an advance for Russia, Great Britain, or Germany would perhaps be a retrogression here. That there are problems of health service in this country is readily recognized, but the public as well as the profession is seriously interested in permitting no change that will result in hindering to the slightest degree the onward progress of medical service in America.

No group of individuals are better equipped to evaluate the complex problems that face society to-day than the medical profession. These problems are all bound to have their effect on the health, the morale, and the well-being of our people. Should not the medical profession be prepared to evaluate the ultimate effect of proposed changes in our social structure on society at large? May it not be that one of the reasons for our own present plight, namely, the necessity to defend vigorously the high ethical integrity of our profession, is that we have neglected to look upon the mass of society as an entity made up of the individuals we seek to serve daily, and in this neglect we have become warped in our conceptions, fostering a smug complacency born of the myopic eye of too rigid an individualism? As Dr. Howard Haggard so aptly stated, "We have locked ourselves in the sick room." There is no reason why the medical profession, with ethical standards unimpeachable, with a com-

posite training for logical thinking and sound observation unequaled, should not be the true leaders of great social movements. Who is better prepared to apply the fundamental laws of growth and development? Who better understands biologic laws and principles than the medical profession?

This brings me to the one statement I wish to present for your consideration. Organized medicine, the concrete embodiment of the medical profession, is vitally involved in the evaluation of all forms of social insurance and specifically in that form called sickness insurance.

A hasty, ill-considered acceptance of any form of sickness insurance will be disastrous. The problem is so far-reaching in its potentialities that we cannot hope to cope with it without organized study, organized research, and organized action. These activities require the moral and physical support of each member of the profession. Each individual physician owes it to himself and society at large to support organized medicine in its efforts to lead in the safe direction. This is not to be construed as a basis for any policy of *laissez faire*, but rather the opposite.

Periods of sudden peril or danger require aggressive methods of defense and are not moments to be given up to contemplation of the opponents' rights or claims. Later comes a period when, with a truce declared, the apparently opposing factions may approach each other and reason together. If both are honest and fair-minded, mutual understanding will be reached and neither will have the desire to insist on changes or terms that tend to destroy or nullify basic principles and laws.

The medical profession should and does know the fundamental essentials for the best medical service possible. It knows that these fundamentals dare not be destroyed nor seriously weakened, and on this it will insist, for it cannot assume any responsibility for consequences resulting from violations of these fundamentals.

Since all the great problems of social insurance involve human life and happiness, organized medicine is vitally concerned. We should, therefore, be included in all councils and should be as important a factor as any other group. Our duty is now (and it will become increasingly so) not only to defend our ethical integrity but to attempt to win over by coöperative study those who do not yet fully appreciate the biologic laws previously mentioned.

This does not mean capitulation, nor is it to be construed as a weakening, but it should be looked upon only as an invitation to view the

whole field of medical service and social welfare in the light of science and professional experience, so that in the end the social evils that are to be remedied (and undoubtedly they are largely economic) will be corrected or mitigated—not by rash, ill-conceived, illogical procedures, but by methods built upon the principle of the highest type of medical service available instead of an attempted adaptation of medical services to economic schemes at the expense of social progress. Medicine dare not sell its birthright for a mess of pottage.

But as has been said on a previous occasion of national import, "We are confronted by a fact, not a theory." We, the American public and more particularly the medical profession, are faced with a fact. That fact is that there is a very insistent and powerful demand for social insurance. Although the seed was sown years ago, the economic crisis of the last few years has provided a fertile field for the growth of this crop of economic panaceas, until to-day we must determine quickly the value of the crop. Are we going to permit its fruition or shall we attempt to root it out before the harvest period is reached? In plain English, "What are we going to do about it?"

It is needless to reiterate at this time many of the oft-repeated statements and arguments that are presented for and against social or sickness insurance. The January, 1935 issue of the PENNSYLVANIA MEDICAL JOURNAL contains a very comprehensive résumé of the subject. I will, therefore, only suggest some very concrete and specific courses of action that we, as physicians (organized and individually) should pursue.

In order to assure those who, either through misinformation or ignorance, may be disposed to be critical of the American Medical Association, it should be said (and this statement can be fully substantiated) that our national organization for years has been fully cognizant of certain trends pointing toward the present climax. They have acquired a wealth of information; they have made exhaustive studies and researches, which culminated in the pronouncements called the "10 points" at the 1934 session of the House of Delegates in Cleveland. In addition, their activities have carried them time after time directly to Washington—its legislative halls, its chambers, and the White House. Their position always has been, and always will be, a dynamic defense of the highest quality of medical service available, the unchallenged ethical integrity of the profession, and the economic security of its members—the latter point emphasized only

because it is essential to the continuance of the first 2 points.

As long as the problems under consideration were nebulous, we of the rank and file quite characteristically but nevertheless quite naturally paid little or no attention to them. Now, however, with imminent translation into cloudbursts of specific action of what only a short time ago were but hazy clouds that only threatened, we find it necessary actually to do something.

We may safely assume that the position of organized medicine on the whole is definitely established.

1. We know what we stand for and why.

2. We know that our opposition to the proposals immediately facing us are based on sound biologic, ethical, and economic grounds.

3. We concede that certain definitely circumscribed phases of medical service present serious economic problems.

4. We recognize the sincerity of purpose of many of the proponents of these social changes.

5. We believe that no insurance system thus far proposed is the answer to the problem of social security.

6. We have sufficient faith in the dynamic urge inherent in American medicine to state that, unless this urge is rendered static by stultifying extraneous forces, organized medicine can and will evolve solutions which will be constructive and not destructive.

Standing upon this foundation and fortified by these convictions, every state society, every county society, and every individual practitioner should spread the gospel. Each state officer must fulfill his intended function; each county officer and each physician must familiarize himself with a working knowledge of the subject of sickness insurance. This can be done through the function of the local committee on medical economics and the manifest interest of the society members. Then let each physician speak to his patients and his friends in simple, understandable terms.

The immediate plea would seem to be that, in the name of sound judgment and real progress, we ask for no precipitate action. In other words, if there is no commitment, federal or state, for the next 2 years, we believe the medical profession, the public, industry, insurance companies, and certain foundations and funds representing powerful influences (both social and financial) will all have been sufficiently sensitized to reach mutual agreements that will result in real progress.

With these thoughts in mind, may I be permitted to be personal since this is my first official

appearance as chairman of the State Society Committee on Medical Economics? In assuming this responsibility I am deeply aware of the significant function of this committee at the present time. Quite rightly, as I have expressed on a previous occasion, the Committee on Public Relations should be and is the official voice of the society in its public contacts. However, we feel that the Committee on Medical Economics has 2 functions—one, to accumulate and study factual data on the state of our own membership and the medical profession at large, and the other, to render every assistance possible to each councilor district and county society in the study and solution of economic problems. We have no authority nor any desire to encroach in the least on the individual county society activities, but we feel it our duty to stand prepared to answer any calls for such assistance as we are able to render. It will be necessary, however, as it has been in the past, to call from time to time upon the county societies for information concerning local economic conditions.

We ask your full and prompt coöperation. We hope to establish a constant interchange of facts and suggestions that will result in recommendations to the House of Delegates which reflect a constructive dynamic organization. We shall contact the medical economics committee of each county society, at the same time maintaining contact with the district councilors and the county society secretaries. We invite constructive criticism and suggestions. Although the specter of sickness insurance occupies our vision at this moment, we realize that as soon as feasible our own problems will receive consideration.

With this in view, the Board of Trustees of the State Society authorized at their December, 1934, meeting the appointment of a number of subcommittees to study specific phases of medical economics. These committees are in process of formation and will be operative in the near future.

In conclusion, our aims and aspirations are best expressed in our definition of the term "medical economics." Medical economics is a consideration of medicine in relation to the growth and well-being of society.

Organized medicine, through the activities of its various bureaus and committees (national, state, and county), has accomplished much, but more must be done. The profession must expect to identify itself actively with the study of all social problems for its own protection as well as that of society. This calls for a much broader field of service than in the past, which

can be made possible only by a strongly knit organization backed by the moral as well as the financial support of every ethical practicing physician.

4940 Penn Street, Frankford.

ABSTRACT OF THE MEETING OF THE PENNSYLVANIA EMERGENCY CHILD HEALTH COMMITTEE

The meeting was held on Wednesday, Dec. 12, 1934, in the Forum of the Education Building, Harrisburg. Dr. S. McC. Hamill, chairman, presided. The morning session convened at 10 o'clock.

DR. MOSES BEHREND, as president of The Medical Society of the State of Pennsylvania, extended greetings and voiced the need for a continuation of the activities of this Committee.

DR. HAMILL, in extending greetings, expressed appreciation of the coöperation given in this work. He said in part:

Experience has clearly demonstrated the willingness of the American public to make serious sacrifices to cope with any emergency that threatens the health or welfare of mankind in any part of the world.

For the past few years our country has been experiencing another disaster more threatening in its effect on the health, welfare, and morale of our people than the World War. It is a much less spectacular crisis. It has been slower and more subtle in its growth, and therefore it is much more difficult to visualize its threats and its effects.

There are over 300,000 families on relief in Pennsylvania, and in these families there are more than 700,000 children. There are unknown thousands whose opportunity to earn has been reduced to a point that brings them to the borderline of relief. It is constantly reported to us from different sections of the state that these groups are suffering more than those on relief because they have no one to guide them in the intelligent use of their limited budgets or in the protection of the health and welfare of their children.

With very definite concern for the welfare of Pennsylvania's children Governor Pinchot, in February, 1933, called a conference of representative people from all parts of Pennsylvania to report to him the status of the nutrition of children. The evidence submitted was so significant that it was manifestly imperative that steps be taken immediately to create an agency whose primary function should be to protect the health of the vast number of children in the families on relief.

Even had the February conference failed to show that children were suffering, the creation of an emergency committee would none the less have been justified. After all, it is the ultimate effects—those which will manifest themselves in the years to come—that we fear most.

The best illustration we have of these end results comes from a recent experience of the English army in endeavoring to recruit 30,000 young men for military service. These recruits were to be chosen from men who were born during the World War or who were mere children at that time. Applicants measuring up to the required physical standards were so few in number that the authorities were compelled, in order to secure their quota, to reduce their standards so that now a recruit needs to be only 5 feet 3 inches in height and to weigh but 113 pounds.

It was in the hope of erecting a safeguard against such stunting of growth among Pennsylvania's children that the president, president-elect, and secretary of The Medical Society of the State of Pennsylvania and representatives of the Departments of Health and Welfare, together with a few interested individuals, met with Governor Pinchot to discuss the procedure to be followed in organizing a committee to protect the health of children in the present crisis.

Since we were to deal with a health problem it was manifest that the project should be administered under the auspices of the State Medical Society, coöperating with the State Government, its Departments of Health, Public Instruction, and Welfare, and the State Emergency Relief Board. The organization adopted called for a State Committee to be known as the Pennsylvania Emergency Child Health Committee, the membership of which was to be chosen by the State Medical Society and to consist of representatives from every state-wide agency interested directly or indirectly in the health and welfare of children, together with outstanding laymen. This committee was to be presided over by a member of the State Medical Society, selected by the society. It also provided for county units with the same type of personnel, to be selected by the county medical societies and administered under their auspices. All of these committees were to serve on a volunteer basis.

To create effective organizations in the 67 counties of Pennsylvania was no easy task. To have done it through correspondence would have been impossible. It necessitated direct interviews with representatives of every one of the 60 county medical societies in the state and with representatives of the State Medical Society in the other 7 counties.

We were most fortunate in securing at the very beginning of our work the full-time voluntary services of a medical man, highly trained in public health and of broad experience in many fields, to undertake this aspect of our program. He has visited every county on many occasions and as the result of his unselfish and effective efforts 56 of the 67 counties are actively at work.

It was manifest early that the lay groups in these county committees desired assistance and guidance in the organization of their part of the work. We were most fortunate in obtaining the voluntary services of an ideal woman broadly trained in the use of volunteers and the organization of volunteer work. She has been invited to visit 28 counties where she has rendered invaluable service in coordinating the work and in clarifying the many problems.

The work of the physicians involves complete health examinations of children in the families on relief and on the borderline, from birth to age 16. The names and locations of the children are provided by the county emergency relief boards. After these examinations are completed the physician gives dietetic and hygienic advice to the mother in respect to her children and, in the event of any special findings such as serious malnutrition, badly diseased tonsils, dental caries, *etc.*, recommends the proper procedure to follow.

These recommendations are submitted to the chairman of the committee who delegates to the proper group or individual the accomplishment of the service required. This includes referral to hospitals for tonsillectomies or other operations (for which the chairman usually makes the arrangements), to dentists for the corrective work they have so generously given, to the county relief boards for cod liver oil or extra food, and to the home economists for food demonstrations to mothers.

To retain the family-family doctor relationship, which has been found to have a very decided value in supporting the morale of the mothers, the children are referred for examination to the physician who was formerly in attendance on the family. If children are found to be suffering from acute or chronic illnesses which require medical attention they are placed immediately in the care of the family physician as medical relief cases.

If it is found that the child has been under the supervision of any agency in the county, he is referred to that agency for whatever service is required. The nature of our organization, which brings into the membership of the committee every agency within the county having to do with children, makes coöperative effort of this character relatively simple. Not only does it accomplish this, but the bringing together of these groups makes possible a closer coördination of their work, a better understanding of their purposes and functions, and the elimination of duplication. It also aids in locating the areas within the county which are not reached by any existing agency.

To put through such an extensive program requires the services of a large group of volunteers. To lighten the burden of the physician, 2 volunteers are assigned to each physician during his examining hours to weigh and measure the children, take the histories, record the findings, and transfer the recommendations to the chairman of the committee. For this particular work we have often been very fortunate in securing the services of unemployed nurses who have given most liberally of their time and effort.

Lay volunteers are given short courses of intensive training to fit them for assisting physicians at the time of examinations, helping with food demonstrations, visiting in the homes, and various other activities.

The State Federation of Pennsylvania Women, the Congress of Parents and Teachers, the Pennsylvania Nurses Association, and the Pennsylvania Home Economics Association, have officially endorsed the work and offered their services. Locally they have interested themselves in the active work of the committees and have been of the utmost value in raising funds for defraying the expenses of the county committees by the various methods which women alone know how to utilize. The men's service clubs also have rendered splendid service.

On behalf of The Medical Society of the State of Pennsylvania and the Emergency Child Health Committee, Dr. Hamill expressed to Governor Pinchot, the State Emergency Relief Board, the Director of Relief and his staff, as well as to the Departments of Health, Public Instruction, and Welfare, appreciation of their whole-souled and unselfish coöperation and assistance.

More than 3000 physicians are participating in the work of the committees. It is their skill and devotion which is protecting the future generations of Pennsylvanians. They made 73,000 examinations. About 30 per cent of the children examined were suffering from malnutrition.

Forty-three per cent of the children had dental caries. That correction was secured in 28 per cent of these cases is a great tribute to the dental profession, inasmuch as this service to 7762 children required not only the expenditure of time but also the use of valuable materials.

Thirty-five per cent of the children showed tonsils so definitely diseased as to require removal at the earliest possible moment. These corrections are being

rapidly accomplished, 11.6 per cent already having been operated upon through the generosity of the operating physicians, the hospitals, and those who have donated money for the hospitalization.

Almost 6 per cent of the children examined had gross eye defects. Glasses have been provided for 653, or 19 per cent of these.

A tremendous number of children have failed to receive protection against smallpox and diphtheria. This is especially true of the children of the preschool group, the age group which is most susceptible to these devastating diseases: the average for the entire group examined is 65 per cent. All of the county committees are engaged in immunizing these children. Several counties have put on intensive campaigns for the immunization of all children under age 10. Up to the present time 21½ per cent have been immunized against diphtheria.

DR. HAMILL: The next speaker will be Dr. Walter F. Donaldson of Pittsburgh, secretary of the State Medical Society. There is probably nobody who knows more of the needs for medical service in the State of Pennsylvania than Dr. Donaldson.

DR. WALTER F. DONALDSON: What I shall say will be in the name of a little more than 8000 practicing physicians in the State of Pennsylvania who are the members of our 57 component county medical societies which are grouped under the title of The Medical Society of the State of Pennsylvania.

Practicing physicians are accustomed to hearing words of gratitude expressed for the services they have rendered, not only to their paying patients but to those who are unable to pay.

The members of our medical society are grateful for the opportunities they have been given in the past 2 or 3 years to work hand in hand with lay people, as we see fit to call them, who felt their moral responsibility to do everything they could for the children of this commonwealth. Realizing that within the next 25 years the balance between births and deaths in this state will have been established, we should appreciate the value of every newborn child. If we keep that quarter of a century in mind, we shall be especially interested in the health of the children of to-day, who will be the fathers and mothers of the children 25 years from now when this balance has been established. Therefore, we must all be interested in the opportunities the children who are here now have for their best possible physical development, which has its great influence on their mental and even on their spiritual development.

When Governor Pinchot gave the State Medical Society the opportunity to enter into this great piece of work as an organized activity which many of our 8000 members had previously conducted as individuals, we were thoroughly appreciative. We have to express our gratitude in terms of service.

We have had unusual opportunities not only in this child health work but also in the emergency medical relief work under the State Emergency Relief Board, and as a result we have developed relations with the Executive Department of the State government; we have developed still further our pleasing relations with the Health Department and the Welfare Department. We have even been given the opportunity to serve in the Department of Labor and Industry through the coöperation of Miss Carr. All of this is a most unusual experience for a state medical society, but we interpret it as an evidence of the changes that are being brought

about socially in all respects and especially in the delivery of medical service.

We hope that our associations with you whom we call lay people have been such as to demonstrate to you some capability inherent in the medical organization to continue to direct and influence still further the types and character of sickness service to which the people of Pennsylvania shall have access.

We like especially to deal with people who are practical, who do not concern themselves too much with biology and social problems which cannot be settled within the next few years. While we shall continue to entrust the future of the children of Pennsylvania to those theorists who make studies of biologic problems dealing with mental unfitness and so on, we still need to have people who will enter into the everyday problems that confront us at the present time and who will leave to others the study of theories as to how to improve this situation 100 years from now.

We trust that we may continue to have the privilege of working on this volunteer basis with you other volunteer workers who interested yourselves so much in this all-important subject, namely, the health of the children of to-day.

DR. HAMILL: In the absence of Dr. Frank G. Hartman, chairman of the Emergency Child Health Committee of Lancaster County, Mrs. Snively, the vice-chairman, will submit this report.

MRS. SNAVELY: The report outlines the plan of procedure to meet the situation in a county of 200,000 people, with a third-class city of 60,000 people, 18 boroughs ranging in population from 500 to 12,000, and 41 townships. It also gives details as to the work accomplished.

DR. HAMILL: You have had the detailed description of the complete work in one county. It will be well to have a detailed report on how one county is meeting its nutrition problems. This report will be presented by Dr. Charles H. Smith of Fayette County.

(The features of this report appeared in the JOURNAL on a previous occasion.—EDITOR.) The report concludes as follows:

Any nutrition program to be efficient and effective must have medical supervision and advice. The nutritionist, like the nurse, is not educated to make a careful, complete, physical examination, and cannot possibly know the needs of undernourished children as does the examining physician. Since this program, upon the part of the physician at least, has been absolutely voluntary, without remuneration or the hope of the same, it should be kept under medical supervision. Properly coordinating the various county emergency relief nutrition programs will render the plan most effective and far-reaching.

DR. HAMILL: In the development of this program we were very anxious to place before you the different types of problems as represented by the different types of counties in which we are working. Dr. Henry T. Price, Pittsburgh, will discuss the problems of organizing this work in a large city with rural communities included.

DR. PRICE detailed the scheme of organization and stressed the following points. In their work they have had 3 major objectives: (1) To provide care and attention to the group of children examined; (2) to spread child health education to mothers of the community; and (3) the study angle. The whole point is

that the plan must have an enduring follow-up to be of great benefit.

DR. HAMILL presented Dr. Samuel J. Crumbine, general executive of the American Child Health Association and field secretary of the Conference of State and Provincial Health Authorities of North America.

DR. CRUMBINE: It is in comparatively recent times that society has concerned itself with the welfare of the children of the community or state. Community concern for the welfare of the children of the community is one of the distinguishing and hopeful portents of our twentieth century civilization.

The chief concern of the human race in its earliest history was its struggle for food. During the nineteenth and twentieth centuries war and its inevitable economic depression and social disruption have been factors of the most potent kind in racial and national decay. Thus we find ourselves at the present time struggling in the back-wash of the world's greatest war, final results and effects of which, socially and physically, cannot yet be foreseen. One of the paradoxes of this present situation is the fact that millions of our people are struggling for food or for some lawful and legitimate method of obtaining food, while at the same time prices of foodstuffs have been depressed because of over-abundance.

We are concerned to-day with determining to what extent medical, social, and economic help is necessary, and with taking stock of such activities as have been inaugurated in Pennsylvania in order to be guided wisely here and elsewhere for the future. One of the most evil results of unemployment, if long continued, is its effect upon the children of the unemployed in terms of malnutrition, increased physical and mental illness, and in an increase of behavior problems. Such results are to be expected, for poverty and its accompanying malnourishment greatly increase susceptibility to disease, and the fret and worry of unemployment inevitably change the social outlook, family harmony, and serenity, with a resulting unfavorable reaction upon the children of the home.

Poverty also means poor housing, usually in insanitary surroundings with unwholesome companions, and lack of healthful recreation and association with organized play activities. It usually means also frequent moving of the family and for the school children the social and mental adjustment of beginning in a new school or the still more disastrous alternative of no school at all. A knowledge of being on relief or charity, perhaps with the knowledge of rent unpaid, results in a loss of morale and sense of confidence and security in the parents, which is even worse than inadequate diet for the future happiness of the child and its usefulness as a citizen.

Many surveys made in widely separated communities have shown among children of the unemployed a marked increase in malnutrition and sickness, as compared with the average sickness and malnutrition rate among the children of the employed.

An inquiry was made by the Surgeon General of the United States Public Health Service in the spring of 1933 into the prevalence of sickness and malnutrition and into changes in economic status and standards of living in certain sections known to be seriously affected by unemployment. The studies in New York City and Pittsburgh showed an apparent increase in the percentage of malnutrition in the groups of children of families whose per capita income changed from a high

to a lower level during 1929 to 1932, as compared with those children of families whose income remained unchanged. In groups of children studied in New York City a direct association was found between nutrition and income, a lowering of nutritional status seeming to be associated with a drop in family income in as short a time as a year. The proportion of children suffering from malnutrition appeared to be considerably larger than the proportion to be expected in a non-depression era.

One feature of the Milbank study was the finding that, as income declined, the greatest reductions were in use of milk, meat, fish, eggs, vegetables, and fruits, the most important of the protective foods.

Illness in families of wage-earners in the poorer sections of 10 cities surveyed was more frequent during the 3 months in 1933 that were studied than prior to that period. The highest illness rate was in families having no employed members and lowest in households having full-time workers. The highest incidence of disabling illness was in the group suffering the greatest loss of income during the depression, i.e., comfortable in 1929 and poor in 1932. This is true of children under age 15 in regard to respiratory diseases. In the infectious diseases, the highest rate for children under age 5 was in the chronic poor, and the lowest rates in groups that were comfortable in 1929 though later moderate or poor.

In New York City the East Harlem Nutrition and Health Service reports a steady decline in malnutrition in the children attending its clinics from 1923 to 1931, but in 1932 it increased, doubling the 1930 figures. The same pediatricians were employed all through this period.

The Mulberry Hill Health Center gives the percentage of malnourished children from 1927 to 1929 as 17 per cent; while in 1930 to 1932 it rose to 36 per cent.

Among school children in New York City the percentage of malnutrition arose one-third from 1929 to 1932, according to the figures furnished by the Department of Health.

The New York State Department of Health found a striking increase in 1929 to 1932 in rickets, anemia, abnormal tonsils, and enlarged cervical glands among preschool children.

In a survey of school children in Detroit in January, 1933, about one-third of the malnourishment in the total group was believed by those making the survey to be primarily due to the present depression.

It was a similar situation which confronted the Governor of Pennsylvania when, with great wisdom and foresight, he called together the representatives of The Medical Society of the State of Pennsylvania and requested the organized medical profession of the state to take the responsibility of organizing and putting into execution a plan that not only would find the children that were malnourished among families of the unemployed of the state, but would also discover through careful examinations such other defects as might menace their future physical and mental growth and development, and secure if possible, the proper remedial measures for their correction.

Major General Bruce of Canada once declared, "Medicine of the future must change its strategy. Instead of awaiting attack it must assume the offensive." It is in line with these tactics that the knowledge we now have of preventive and corrective measures for child health and protection is being so auspiciously

applied by The Medical Society of the State of Pennsylvania, under the leadership of Dr. Samuel McClintock Hamill of Philadelphia, and the medical profession of Pennsylvania has achieved new laurels for devoted, self-sacrificing service to the underprivileged children of this great state.

One of the anomalies of this present depression is the continued low, and indeed slightly lowered, mortality among children as well as adults that has been registered up to the time of the last authentic records, Dec. 31, 1933, and some have contended that therefore there is no special need to become worried or excited about the health of the people because of the depression. The extent of malnutrition is not immediately registered in terms of fatalities, but rather in terms of a decrease in physical vigor, and in the case of children in retardation of physical and mental growth and development and increased susceptibility to disease. It is well to remember, too, that authorities are generally agreed that nutritional deficiencies, if they are long continued, extending through the early years of life, particularly if the deficiencies are those of the calcium and phosphorous factors, lead to a stunted growth, both physically and mentally, and are never made up later.

The examinations made by the organized medical profession show that the extent of malnourishment among the children examined in Pennsylvania is even greater than that found in many other communities throughout the United States where careful surveys have been made. Perhaps this is to be expected, Pennsylvania being a great industrial state. Dr. Hamill reports the percentage of malnutrition to-day of children examined to be 29.2 per cent out of a total of 73,056 examinations reported from 45 counties. This percentage is so high as to challenge the united sympathetic efforts of the people of the state to a speedy amelioration of this condition.

It is reassuring to know that the Emergency Child Health Committee is concerned in discovering not only cases of malnourishment among children, but also physical defects that handicap their growth and development, and in bringing about their correction.

Dr. Hamill has told you of the large percentage of corrections of physical defects found. This is a most notable achievement. No wonder certain school medical inspectors have advised Dr. Hamill "that more children have entered school this autumn with defects corrected than ever before." It is worth repeating what one doctor reported—that of the children brought to him for examination 75 per cent formerly had been his pay patients. What a magnificent tribute to the work of the committee and all associated cooperating agencies, that in times of poverty and distress these unfortunate children have not been separated from the kindly ministrations of their family physician.

Pennsylvania is to be congratulated on the refreshing example of a united front of all the state and voluntary agencies in the cause of child health; and it is a display of wisdom and strategy that unfortunately is not seen often in agencies and departments of state concerned with state-wide problems.

The educational work as carried on by the Emergency Child Health Committee and the cooperating agencies is of the greatest importance.

One of the most important contributions to the understanding of processes of life of the twentieth century is what has been called "the newer knowledge of nutrition." We no longer speak of foods only in relation to their caloric value, or their mineral, protein, or

carbohydrate factors. We now emphasize a balanced diet with especial reference to its carrying those vital substances concerned with making the food consumed available for body uses and with promoting that state of well-being we speak of as health. The vitamins, especially those of the so-called protective foods (milk, fruit, and the leafy vegetables), must have a place in the diet of every child.

Of course it is generally understood that there are other causes of malnourishment than those related to food. Indeed the causes related to food may be those of underfeeding or misfeeding although these causes usually overlap, but in times such as these underfeeding is probably the more important. Nutrition is not synonymous with nourishment or food, but includes all the factors which have to do with assimilation of food and its utilization in promoting growth and repair of the body.

Smiley Blanton, in *Mental Hygiene*, July, 1919, says, "There are 5 chief causes of physical malnutrition which are as follows: Physical defects, lack of home control, overfatigue, faulty food habits and improper food, and faulty health habits." He classes the most important as that of physical defects and declares, "I find that the removal of these causes brought about mental changes in the child which corresponded with the aims of the mental hygiene workers."

Here again is seen the wisdom of the program of the State Medical Society in giving a complete physical examination for all children and in correcting remedial physical defects, not only to remove the retarding influences to physical growth and development, but, of equal importance, to liberate those inhibiting influences in relation to mental growth and development.

Although the Pennsylvania program is designed primarily to deal with causes relating to the present crisis, the medical part of this program for children provides that a complete medical examination be made for the dual purpose of the discovery of all physical deviations from the normal and the correction of all remedial defects, and for the equally important purpose of instructing the parents in care of the child, the proper selection and preparation of foods for optimal nutrition, and in the hygiene of living. This economic depression with its social disruption and physical and mental distress of hundreds of thousands of people affords the greatest opportunity in the history of Pennsylvania for a state-wide educational campaign in the sane and effective methods of applying the scientific knowledge now available in the prevention and treatment of disease, and the care and wise guidance of children in a wholesome, vigorous, happy life.

In speaking of what might be salvaged from the depression, some one has recently said, "If we don't watch out, this depression will be a failure."

His Excellency, the Governor, The Medical Society of the State of Pennsylvania, and the associated state departments and voluntary agencies have taken the necessary and practical steps to assure the people of the state that this depression will not be a failure, but rather a challenge to constructive leadership and a stepping-stone to a higher and better standard of living and usefulness for all the people of the state.

What a privilege it is to work for a cause such as this conference represents; what a mark of distinction to be counted among the working friends, the guiding friends, the friendly friends of childhood! Perhaps ex-President Hoover described this gripping sentiment better than it has ever been expressed in his address

at the opening of the White House Conference, when he said:

"We approach all problems of childhood with affection. Theirs is the province of joy and good humor. They are the most wholesome part of the race, the sweetest, for they are fresher from the hands of God. Whimsical, ingenious, mischievous, we live a life of apprehension as to what their opinion may be of us, a life of defense against their terrifying energy; we put them to bed with a sense of relief and a lingering of devotion. We envy them the freshness of adventure and discovery of life; we mourn over the disappointments they will meet."

It is for these that you plan and toil, and to whom you dedicate this conference.

DR. HAMILL, in presenting Governor Pinchot, said: Throughout this work he has been absolutely cooperative. In everything we have endeavored to do we have had his utmost support, and The Medical Society of the State of Pennsylvania and all who have been working in the counties feel that we should express a real sense of gratitude to Governor Pinchot for the unselfish and interested way in which he has supported our work. The topic will be "As the Governor Views It."

GOVERNOR PINCHOT: The very first thing I want to do is to express my gratitude to the members of The Medical Society of the State of Pennsylvania for their coöperation in this matter; to express to Dr. Hamill my personal gratitude for the great piece of work he has done; to Dr. Guthrie, Dr. Donaldson, Dr. Behrend, and to all those who have taken hold of this work, and to every member of the county committees. Your work for the children of the Commonwealth of Pennsylvania is very close to me and I feel like expressing my gratitude or the gratitude of the commonwealth to every one of you for the work you have undertaken, for the results you have achieved, and for the tremendous benefit that will follow your work throughout the decades and centuries to come.

You put your hand on the focus when you took it upon yourselves to see that there are healthy children in the Commonwealth of Pennsylvania.

Somebody has said that the things we go through in this life pass out of our memories into our experience. I had an experience some years ago which has never passed out of my memory and which never will. The late President Theodore Roosevelt sent me to Mexico years ago to confer with Diaz on the conservation of the natural resources of the North American continent. The train stopped at various stations and at these stations there were beggars, a very large percentage of whom were children. These poor little tots, 6, 8, 10, or 12 years old, were asking for pennies on the basis of withered limbs that could never be made sound, twisted legs that could never be straightened, conditions of crippling that could never be remedied. Here these tots were, walking on their hands, on crutches, on legs twisted underneath them; if they lived, they would remain helpless. They were dependent on the charity of strangers for what little they did get. It made an impression on me that I have never forgotten and never will.

When this chance came to coöperate with the physicians of Pennsylvania in doing something for the

children, of course I accepted, and I am grateful for it. It is a grand piece of work and in many respects it is a relief from a lot of pieces of work that a Governor has to do. Sometimes it seems to a Governor that far too much of his time is taken up in preventing self-seekers from doing harm to the state. That is true enough too! Here you are, busy, representative citizens, giving your valuable time and ability to the health of Pennsylvania's children. That is a fine antidote to the other side referred to.

A group of citizens, such as the physicians and other members of the Emergency Child Health Committee, putting the interest of our people ahead of their own interests, forces a man to realize the devotion to public service which binds the citizens of a state like ours into a cooperative unit, the fundamental purpose of which is the good of all. It is a great, a dignified, and a fine piece of work.

For 5 years the country has been plunged into the worst depression of all times. The fight to save what can be saved from these lean years is the fight of every public-spirited citizen. The hardest thing to do in planning for the relief of the depression is to realize what it is doing to the children of Pennsylvania. It means something when there is an increase of 30 per cent in malnutrition of school children in a certain county. It is a call you have answered.

I have never had a harder job than to provide relief for the 2,000,000 men, women, and children of Pennsylvania who are in dire need because of the depression and through no fault of their own. It has cost more than a quarter of a billion dollars to give them the bare necessities of living for about 2½ years. Pennsylvania as a state has given \$87,000,000 to make up this amount, and it has been a hard and ceaseless fight to get the money.

And the money was not all of the problem by any means. If the people of Pennsylvania who have been living on meager relief are to be saved from the terrible consequences of the depression, not so much now as for the future, we must not only substitute work relief for food orders, but we must see to it that the secondary consequences of the depression are not carried into the health and the lives of the growing generation long after the depression itself has disappeared.

There is no state in which relief has been better administered than in Pennsylvania.

And let me say here again that I recognize with the utmost gratitude what has been done by the physicians of Pennsylvania for those who needed their help and could not pay for it. In future years there will be hundreds of thousands of citizens of Pennsylvania who will owe to the Pennsylvania Emergency Child Health Committee and its cooperating local committees a heritage of sound minds in sound bodies which cannot be told in terms of dollars and cents.

There is no other state in the Union in which the medical profession has so liberally and unselfishly attacked that great social need—the great human problem of lifting the physical level of our whole people.

Dr. Hamill and others have given the facts which demonstrate the value and extent of the work of the Pennsylvania Emergency Child Health Committee. I want to express my deliberate conviction that few, if any, enterprises have been started in the 4 years of my present term that will result in such wide-spread benefaction to the people and especially to the children of Pennsylvania.

Here, as I see it, is the function of the physician at its very finest—not waiting to be called, not asking to be paid, but striking at evils which are still remedial, the cure of which will often influence for good the whole of the child's future life.

The thing that needs to be cured may be a small matter at the time—very often it is a small matter—but its importance grows with the years until the stitch in time may have saved a life, or, what may be even more important, saved a human being from a living death.

If it be true that the proper aim of good citizenship is to raise the level of human life and human living, then here is a piece of work that goes straight to that great mark and does it so finely and so effectively that it deserves the gratitude of the whole commonwealth.

A sound mind and a sound body has been the aim of educators and physicians for many a generation. But we can make another phrase, and who can say which is the more vital? We can say, "Healthy children in every home." And we can see that successful steps are being taken throughout the commonwealth to bring about that deeply desired end.

In closing, let me say again I think you have undertaken one of the most important pieces of work undertaken in this or any other state. I look forward to the continuance of this work with the utmost hope and the utmost interest. I am confident that when the final reckoning comes, very few things will have been done in this state or any other state with the far-reaching benefits that are attached to your work. I wish you God-speed in one of the finest undertakings I have ever known in my whole life.

This ended the morning session.

TO BE CONTINUED.

HIGH BLOOD PRESSURE CAUSE OF THICKENING OF ARTERIES

High blood pressure brings on the dreaded thickening of the arteries that afflicts so many and takes such a death toll these days. It is not the other way around, as some medical investigators have believed. Dr. Alan R. Moritz of Western Reserve University has made this discovery in careful and laborious microscopic tests upon 72 individuals, half of whom came to the post-mortem table with records of high blood pressure, heart damage, and kidney disease, while the other half had no such trouble.

To the National Academy of Sciences, Dr. Moritz explained that researches into the ultimate cause or causes of hypertension, as doctors call persistent high blood pressure, will be directed and executed with greater precision and hope of success if it is known that thickening of artery walls is the effect and not the cause of the high blood pressure. His view that high blood pressure is the horse and the artery condition the cart is supported by the fact that although thickening of the arterioles, or tiny arteries, was characteristic of the high pressure group, it was not present in all individuals who were known to have had long-standing high blood pressure.—*Science News Letter*, Dec. 1, 1934.

Ninety per cent of the persons who die of heart diseases are over 40 years of age.—*Science News Letter*, Sept. 15, 1934.

EDITORIALS

MAY DAY—CHILD HEALTH DAY

Child Health Day was instituted 12 years ago. The purpose of its originator was to have the entire nation center its attention for one day in each year on the important problem of the health of children.

Much was known to the medical profession, even then, respecting the prevention of disease in children, but the great public, which should have profited most from this knowledge, was not adequately aware of the many resources available for the protection of child health.

The value of this avenue of education was quickly recognized. Within a very few years every state and territory appointed a Child Health Day Committee. In many of them a full week is now devoted to education in this field.

In May, 1928, by joint resolution of the House of Representatives and the Senate of the United States, later signed by President Hoover, the first of May was nationally designated as Child Health Day. Each year since then the President has issued a Child Health Day message to all citizens, calling their attention to the importance of giving to every child his right to full health protection.

That this institution has accomplished much there is no question. That much remains to be done is also true. This latter fact is well demonstrated by the recently reported findings of the extensive studies of our Emergency Child Health Committees. Of the more than 80,000 children who have been examined 65.6 per cent have not been protected against diphtheria; 38.8 per cent have not been protected against small-pox; 36.5 per cent are carrying badly diseased tonsils; and 29.7 per cent are suffering from malnutrition. Many others are victims of serious defects of vision, diseases of the heart, pulmonary infections, *etc.*, all of which might have been prevented had the lessons of Child Health Day been universally applied.

Probably no other state is doing as much to carry out the purposes of Child Health Day as Pennsylvania, through the medium of the approximately 3000 physicians at present making health examinations for the County Emergency Child Health Committees. They are not only locating the children with defects but are seeing to it, with the splendid support they are receiving from the various child health organizations,

other agencies, and interested laymen within the counties, that these defects are corrected.

This year the states are being asked by the American Child Health Association, which has fostered Child Health Day since its founding, to lay special stress on the importance of diphtheria prevention. Much is being done in Pennsylvania, but we bespeak the full coöperation of the medical profession in wiping out this dread disease by seeing to it that all children under their supervision receive the protection that a single dose of toxoid will give.

Much has been done in lessening morbidity and mortality from diphtheria but certainly we, as physicians, have no right to relinquish our efforts in this field of prevention so long as nearly 145,000 children are victims of this disease in a single year, 5000 of whom die.

PENNSYLVANIA EMERGENCY CHILD HEALTH COMMITTEE

A very important and epochal all-day meeting of the Pennsylvania Emergency Child Health Committee was held at Harrisburg, December 12, 1934.

An outstanding program was arranged to show the need for the appointment of the committee, what has been accomplished, and the reasons for its continuation.

All the speakers paid well-deserved tribute to Dr. S. McC. Hamill of Philadelphia, chairman of the committee, for his sterling worth and distinguished leadership.

The various speakers gave praise for the wonderful coöperation obtained throughout the commonwealth, for the unceasing efforts of all groups, lay and professional, and for the resourcefulness shown in perfecting the organization of the various county committees and in overcoming obstacles in harrowing a new field.

It is natural to suppose that the activities of the Emergency Child Health Committee would belong properly to the State Department of Health, but it must be borne in mind that our State Department of Health has very definite limitations; health questions are dealt with en masse, not with individuals, and are limited entirely to preventive measures.

The organized medical profession is the most important of all factors in solving any public-health problem, and Governor Pinchot, *et al.*,

accorded due recognition to the physicians of the state for services being rendered. To quote the Governor, "I know of no other state in the Union in which the medical profession has so liberally and unselfishly interested itself in this great social need."

An abstract of the report of the meeting will appear in the JOURNAL in 2 parts. Part 1 will be found in this number of the JOURNAL, page 517. Part 2 will appear next month.

INCOME FROM PREVENTIVE MEDICINE IN PRIVATE PRACTICE

We have stressed on divers occasions the need for the general practitioner to realize fully that curative medicine though very essential and always a necessity is becoming less so. Preventive medicine is coming more and more to the front and is a big source of revenue if the physician would visualize it. There are "acres of diamonds" at the front door of every practitioner, but too many fail to see them.

Many physicians bemoan their fate because preventive medicine is "killing the goose that laid the golden eggs," totally oblivious to the wealth in the field; their's for the harrowing.

Each physician must take the initiative and sense the sources of supply: Periodic health examinations and the numerous conditions thereby detected requiring corrective measures; diphtheria immunization; Schick testing; tuberculin testing; vaccination against smallpox; prenatal care; and a host of others. He must acquire the necessary technic to become proficient. Many physicians will not do some of these procedures and set up a hue and cry when they find the State Department of Health is on the job. The physician has no one to blame but his own lethargy for loss of income from the fertile field of preventive medicine in his everyday practice.

At the annual meeting of the Lycoming County (Pa.) Medical Society held at Williamsport, Jan. 11, 1935, an address on "The Rôle of Preventive Medicine," was delivered by Mr. Henry F. Vaughan, City Health Officer of Detroit, Mich. Mr. Vaughan detailed the Detroit Plan, in which 1100 physicians are coöperating, stating that the main premise is that the general practitioner should practice preventive as well as curative medicine and, if necessary, courses should be provided to instruct him in necessary details.

He further states that in Detroit, in a given period, \$60,000 was lost to physicians by eliminating diphtheria, while \$300,000 was the in-

come to physicians from immunization, a ratio of 5 to 1. The Health Department saved enough money to finance the campaign. The family-physician relationship was preserved.

Here is concrete evidence of one source of income that many physicians overlook.

THE PHYSICIAN AND MATERNAL MORTALITY

There is undoubtedly a rising tide of public knowledge flooding through channels which may carry much needed information to the men and women of this country on the subject of safer motherhood. The education of the citizenry cannot go on too rapidly or too intensively. But after all, the prime responsibility for reducing the maternal death rate must rest with the medical profession.

Men's and women's organizations can suitably undertake the spreading of facts about the needless loss of life in childbirth supplemented by the platform, by the press, and by the radio. This information may materially lessen the general ignorance as to what constitutes adequate care for the child-bearing woman. However, we, the doctors of the land, are behind and beneath the whole burden of what has to be done.

The Maternity Center Association of New York City is again, as for several years past, appealing to civic and welfare organizations to enter the campaign to teach the public on these matters. The campaign is to reach a climax on Mother's Day. Physicians should feel an urge to capitalize this occasion, for the observance of the second Sunday in May as Mother's Day places before us the chance to make known our personal enthusiasm for the National Educational Campaign of which Surgeon General Cumming says, "Efforts to inform the public of the vital importance of proper maternity care and to secure the coöperative efforts of the public, medical profession, health authorities, and related organizations is of great importance."

Pennsylvania physicians have recently had laid before them a communication putting in a nutshell the vital matter of prenatal care, a most important phase of the whole problem of maternal mortality. Have we taken the opportunity which this memorandum gives us to measure seriously our individual worth as givers of prenatal care to our patients? The public must know what it is all about and every expectant mother must know what she ought to ask for, but that mother also must find her doctor able to meet her needs when she presents herself and asks for prenatal guidance. These are the words

of the memorandum: "The expectant mother is being taught to seek wise, thorough, efficient medical care, with the broad assertion that, if she does, all will be well. This, fellow practitioners, is a large order."

If we ask ourselves whether we are giving "poor, indifferent, good, or adequate care" to every mother among our patients, need we be ashamed of our answer?

There were 829 maternal deaths in Pennsylvania in 1934. More than half of these—some say probably two-thirds—were avoidable. Where is the blame to be laid? Carelessness, stupidity, and ignorance on a patient's part may defeat the best skill and may take the blame for some deaths. Communities must ask themselves whether there are facilities for the care of confinement cases. It must be known whether prenatal care is forthcoming either in private offices or in the hospital clinics for *every* mother. If the answers are "no," then doctors and laity together should face these facts. A remedy for the situation can be found *when* all concerned are *interested*, and not before.

The county medical societies of the state are in the act of initiating maternal mortality studies in their respective areas. More power to them. May the machinery be speeded up which can put the facts before us. Public and professional consciousness must be aroused. Too much is at stake for indifference to continue.

PSYCHIATRIC EDUCATION AND THE LAYMAN

Within recent years much has been written and said on educating the public in mental health matters. Likewise, there have been many approaches, none of which has been eminently successful. Much that has been written may be classed as bunk, particularly that type of literature dealing with the so-called personal application of psychoanalytic teachings, the applied new psychology one reads in magazines, books of fiction, and the like. In making this criticism no disparagement is cast on books written by men who are qualified to present mental health matters as they relate to the individual.

In our approach to the problem, many avenues have been followed to reach the masses, to wit: Service clubs, business clubs, parent-teacher societies, and the like. The results of such approaches, as concerns the application of mental hygiene to personal problems of the individual of these groups, are doubtful. It is difficult to teach an old dog new tricks. The result of getting such groups back of certain objectives

such as playgrounds, vocational classes, *etc.*, is very gratifying.

The approach to the college student possibly has not brought the most gratifying results. While it is true that the students are intensely interested in popular lectures dealing with mental health, one doubts very much if they apply mental hygiene principles to their daily lives. This may not be the student's fault. It may be the lack of presentation in an adequate manner. On the other hand, this may be explained by the fact that when a student reaches college, so far as applying principles to himself, his mental patterns are pretty well fixed and, so far as he is concerned, he feels that he is perfectly capable of looking after his own mind and body.

In lieu of the failure on the part of the elderly groups and the college student to take anything seriously as relates to mental and physical health, it would behoove mental hygiene workers and workers in physical health to approach the still younger groups. This may be done by assembling catechismal facts concerning mental and physical health for children in the graded school, a little more advanced for high schools, and still higher for college students. In this respect, much might be learned from Hitler, Mussolini, and Stalin—they pick 'em early and inoculate 'em thoroughly with patriotism: the children thrive on it, get a tremendous kick out of it, and as they grow up into womanhood and manhood are willing in reality to die for "dear old Harvard." Why? Because these leaders have found a new approach to the masses. They inculcate their teachings early in childhood.

IRA GROFF SHOEMAKER, M.D.

Dr. Ira Groff Shoemaker, of Reading, died February 28, 1935, at the Reading Hospital following an operation, aged 65. He was born in Lehigh County. Dr. Shoemaker was graduated from the Medico-Chirurgical College of Philadelphia, in 1891, after which he entered practice in Reading. Dr. Shoemaker's father was also a physician. He was very active in his county and state medical societies and was a Fellow of the American Medical Association. He served as president of the Berks County Medical Society and at the time of his death was chairman of the Legislative Committee of his county society and chairman of the Berks County Emergency Child Health Committee. He served as a delegate to The Medical Society of the State of Pennsylvania for several years; was a trustee and councilor from 1917 to 1924, and for several years was chairman of the Publication Committee of

the JOURNAL; and was elected president of the State Society in 1925. He served for many years as one of the 3 chiefs of the medical staff of the Reading Hospital, and reaching the retirement age last year was placed on the consulting staff January 1, 1935. He was a member of the Reading School Board from 1904 to 1911. Dr. Shoemaker has done very extensive work in the practice of proctology. His ideals and high standards, his unself-conscious but always modest and self-effacing manner were characteristic features. He was always willing and ready to aid the sick and in addition was a leader in many of the enterprises of the community. He was recognized as a man of integrity, honesty, and sterling worth as a physician, citizen, and friend.

He is survived by his widow and one daughter.

THOMAS COOK STELLWAGEN, JR., M.D.

Dr. Thomas Cook Stellwagen, Jr., of Philadelphia, nationally known urologist, died suddenly of angina pectoris, March 15, 1935, at the Jefferson Medical College Hospital, aged 56.

Dr. Stellwagen was born in Media, Pa., August 27, 1879. His ancestors were among the early settlers of Delaware County, and were distinguished for their services in the United States Navy. His father, the late Dr. Thomas Cook Stellwagen, Sr., occupied a chair in the faculty of the Philadelphia Dental College.

He was a graduate of the Boys' Central High School of Philadelphia, the Philadelphia Dental College, and the Jefferson Medical College in 1903. Upon the termination of his internship he began the practice of medicine in Philadelphia, and became associated on the staff of the Jefferson Medical College Hospital. In 1930 he was made professor of genito-urinary surgery at the Jefferson Medical College to fill the vacancy caused by the death of the late Dr. Hiram R. Loux, which he occupied at the time of his death.

He was a member of his county and state medical societies; a Fellow of the American Medical Association; a member of the American Urological Association, and the American Association of Genito-Urinary Surgeons (a charter member and a former president). He also was connected at different times with the Philadelphia General Hospital, St. Joseph's Hospital, and the Jewish Hospital. Dr. Stellwagen was very active in his medical societies and served as secretary and later as chairman of the Section on Urology of his State Medical Society.

During the World War he served first in the

British Army and later with the United States Army, being discharged with the rank of major in the Medical Corps. In 1917 he was a member of the Jefferson Base Hospital Unit, but was detached and sent to the front in charge of a mobile operative unit, serving in this capacity until the signing of the Armistice. At the termination of over-sea service he returned to Philadelphia and was ill for some time due to an infected finger.

Dr. Stellwagen was very popular with the student body, and a portrait of him was in process of being painted to be presented to the Jefferson Medical College by the class of 1935. Dr. Stellwagen was a lovable character, fearless in debate, always in the forefront to advance the best interests of urology. He was blessed with a quick intellect, was a voluminous, selective reader, endowed with an indomitable character, an unswerving feeling of justice, a keen sense of humor, a cheerful philosophy, and an innate kindness. He was a delightful companion and an appreciative friend.

Dr. Stellwagen is survived by 3 children and 3 sisters.

THOMAS McKEAN THOMPSON McKENNAN, A.B., M.D.

Dr. Thomas McKean Thompson McKennan died at Pittsburgh, February 16, 1935. Dr. McKennan had been professor of nervous diseases in the University of Pittsburgh Medical School since 1900.

He was born in Washington, Pa., July 13, 1859; was graduated from Washington and Jefferson College in 1879; and from the University of Pennsylvania Medical School in 1882. He was resident physician for one year at the Western Pennsylvania Hospital; then practiced medicine for one year in Minneapolis, Minn., later becoming assistant physician at the Western Pennsylvania Hospital for the Insane at Dixmont, Pa.

Subsequently he was appointed professor of anatomy at the Western Pennsylvania Medical School, and for a time was the last surviving member of the original faculty of this institution.

He served for some time as neurologist on the staff of the Allegheny General Hospital, the Western Pennsylvania Hospital, the Roselia Foundling and Maternity Hospital, and the Elizabeth Steel Magee Hospital. He had served on the staff of the St. Francis Hospital from 1894 until his death.

Dr. McKennan was a pioneer in the practice of neurology in Western Pennsylvania and stud-

ied at various times under Hughlings Jackson, Dr. Gowers, and Sir Victor Horsley. He was present at the first operation ever attempted for the removal of a brain tumor, which was done by Sir Victor Horsley.

He was a member of the Beta Theta Pi, Phi Beta Pi, and the Nu Sigma Nu fraternities. He was one of the charter members of the American Neurological Association and the Association for Nervous and Mental Research. He was president of the Allegheny County Medical Society in 1904, and had been president also of the Pittsburgh Neurological Society.

Dr. McKennan was a man of deep learning. His early contributions to scientific medicine were regarded as much in advance of his time. His thorough knowledge of Western Pennsylvania and its genealogic history made his contribution to psychiatry of unusually significant interest. He was abundantly able and generous with his knowledge.

Dr. McKennan is survived by his wife, Eleanor W. McKennan, a daughter, a son, 2 sisters, and a brother, Dr. James W. McKennan of Washington, Pa.

POLLUTION OF STREAMS AND THE MEDICAL PROFESSION

I. H. ALEXANDER, M.D., PITTSBURGH

With several bills pending in the Legislature to bring about the purification of the streams in the state, the problem of pollution is again brought to our attention. Stream pollution is a subject which every member of the medical profession should find of vital interest, for this ever-growing practice is a menace to the health and welfare of every resident of Pennsylvania.

The problem of stream pollution is not new. It dates back to the days, long before Christ, when the Romans were confronted with the pollution of the Tiber River. The Tiber River, together with springs and wells, was the source of the Roman water supply, but the increasing pollution of the water, as well as the need for greater volume, caused the search for other supplies during the year 312 B. C.

Several years ago, a tablet was found along the route of an aqueduct which supplied the City of Jerusalem with water at about the time of Christ. This tablet warned against the pollution of the water in the aqueduct, under penalty of death, and further prohibited the planting of crops within a considerable distance of the aqueduct.

The desecration of our public waters constitutes a serious threat to-day to the health and well-being of every resident of the commonwealth. Were it not for the use of powerful chemicals to kill the millions of death-dealing germs in it, the water would be totally unfit for human consumption. An issue so vital to the welfare of every resident of this state demands united action to bring about an objective that is absolutely essential—the purification of the streams—and to this end the medical profession should lend its efforts and

assistance. The indifferent attitude of the profession in the past has given it a rather prominent, though unappreciated, place among those who have seen the handwriting on the wall.

To-day we are presented with the opportunity of lending our support in this worthy cause. Many communities and industries have already realized the seriousness of the situation and have installed disposal plants for their domestic sewage. They have also installed neutralization plants, as well as settling basins, for their industrial wastes. It is only those who are now using and hope to continue to use the streams of the state as their private sewers that claim industrial activity must cease if the streams are purified. Nothing could be further from the truth. That this argument is both childish and unfounded is conclusively demonstrated by the River Rhine in Germany, the River Seine in France, and the many others which flow through industrial Europe, where pure water and industry have been in existence side by side for many years.

In this country the practice has been that, just as soon as an industry springs up and along with it the resultant community, without any thought of the consequence the near-by stream becomes polluted by the emptying of industrial wastes and domestic sewage into the waters. On the other hand, if the residents and industries of that community voided their body wastes and industrial poisons into Main Street, it would be unthinkable and repulsive to the highest degree, yet we maintain with smug satisfaction a condition that is infinitely worse. We are discharging these body wastes and industrial poisons into our streams, trusting in God and the unaided forces of Mother Nature to eliminate the impurities or placing our hopes in lime and chlorine to remove the poisons and filter beds to remove the solids. Should this be? Do we like it? Apparently, we do. More than this, we revel in it. We delight in this amalgamation of human sewage and industrial wastes, and we use this liquid that has diluted the body wastes of the residents of that community along with highly poisonous acids, disgusting offal, and sulphurous waters from other sources as our drinking water and for culinary purposes.

Not only that, the baker is using this water in the preparation of the "staff of life," and the meat packer is using it in the manufacture of his sausage and in the brine with which he cures his meats. The makers of beverages are using this vile, repulsive filtered sewage and industrial wastes in the manufacture of their products. It is true that some of them sterilize the water, but, nevertheless, it is still composed of an amalgamation that is anything but what it should be—pure water.

Ice, which we place in our drinks, is made of this water, adding insult to injury as it were. Are we going to stand by and permit this horrid condition to grow more repulsive from day to day and year to year, and to become more and more a menace to the welfare of our people?

John G. Mock, editor of the "All Outdoors" column in the *Pittsburgh Press*, drew a graphic picture of the situation in one of his recent articles on "The Necessity for the Purification of our Streams." He took his readers to the headwaters of the Allegheny River, far up in Potter County, then retraced his steps, giving in detail the number of tributaries, naming each as the journey continued downstream, until the mouth of the Allegheny River was reached at Pittsburgh. There are located along the course of this stream and its principal tributaries more than 400 communities, the residences

of hundreds of thousands of people, and hundreds of industries, all of which use the near-by stream as their sewers and disposal plants. He adds that it is remarkable that the amalgamation is really in liquid form when it reaches the intake point at the filtration plant near Aspinwall. Is it any wonder, then, that it is costing the citizens of Pittsburgh millions of dollars annually for chemicals to treat this horrid content to make it fit for human consumption and to replace plumbing destroyed by water so treated?

The inference that the purification of our streams would drive the industries to other states is but a weak excuse at best, for the same condition prevails in other sections and the sentiment for pure streams is similar. Furthermore, were the Great Magician to perform the miracle of causing water to flow in a circle, another miracle would immediately follow. The pollution of our waters would cease almost overnight, because the means of sending it from those who do the polluting would disappear and the water would be returned to them in the condition in which they sent it forth.

The evil effect of stream pollution, especially industrial wastes which become a part of the water in solution and cannot, therefore, be eradicated by filtration, is coming more and more to be recognized by the medical profession and scientists. In the first place, it destroys the potability of the water. Unpalatable water keeps down the necessary consumption, and the human body does not function properly unless a sufficient quantity of water is taken daily. In the second place, the irritating effects of certain of the trade waste chemicals cause intestinal disturbances. See "An Epidemiological Study of Suspected Water-borne Gastro-enteritis," by M. V. Veldee, *American Journal of Public Health*, pages 1227-35, November, 1931.

Water, that is, pure water, is a most wonderful object. It is a mainstay of life, a prime factor on which hinges the existence of every living thing. Three-fourths of the earth's surface is covered by water. If the whole earth were level and the oceans, the lakes, and the valleys filled, there would be enough water to cover the entire surface of the earth to a depth of almost 2 miles. Yet with all this vastness and tremendous scope, there is less known about water and its importance than about any other subject, and still less regard is held for it despite the fact that it is the most important single factor in our existence.

For this reason, we, as members of the medical profession, must raise our voices in protest against making public sewers and dumping grounds of the streams, which from the earliest days have been and should be held in great reverence and sanctity. Poets and prophets in song and story referred to the still and beautiful waters of Paradise, the fountains in the dry and thirsty lands, the brooks of the mountains, the rivers of the valleys. Water is used as a physical emblem of baptism. Should we then, in view of these things, permit the desecration of beautiful rivers by the carelessness of man?

Let us wage a continuous, ceaseless, never-ending warfare against those who are taking from us the most valuable of nature's gifts—pure water.

The passage of Senate Bill No. 273 should be the aim of every member of this organization. It is hoped that each and every one will lend his whole-hearted support and urge his senator to take the action necessary to enact it into law.

BLIND CHILDREN OF PRESCHOOL AGE IN PENNSYLVANIA

The Pennsylvania Council for the Blind is desirous of determining the number of blind children of preschool age in Pennsylvania, and the council has no way of determining this except by the coöperation of the physicians of the state. The council is in a position to provide a certain type of clinical education for these children.

May we request that all physicians in the state having direct knowledge of blind children of preschool age coöperate with the council by sending the names and addresses of these children to Dr. Samuel Horton Brown, 1930 Chestnut St., Philadelphia, who is chairman of the State Society Committee on Conservation of Vision, and also a member of the Council.

AMERICAN MEDICAL GOLFERS PLAY IN ATLANTIC CITY

The American Medical Golfing Association will hold its twenty-first annual tournament at the Northfield Country Club in Atlantic City on Monday, June 10, 1935.

Thirty-six holes of golf will be played in competition for the 70 trophies and prizes in the 9 events. Trophies will be awarded for the Association Championship, 36 holes gross, the Will Walter Trophy; the Association Handicap Championship, 36 holes net, the Detroit Trophy; the Championship Flight, first gross, 36 holes, the St. Louis Trophy; the Championship Flight, first net, 36 holes, the President's Trophy; the Eighteen-Hole Championship, the Golden State Trophy; the Eighteen-Hole Handicap Championship, the Ben Thomas Trophy; the Maturity Event, limited to Fellows more than age 60, the Minneapolis Trophy; the Oldguard Championship, limited to competition of past presidents, the Wendell Phillips Trophy; and the Kickers' Handicap, the Wisconsin Trophy. Other events and prizes will be announced at the first tee.

Dr. Charles Lukens, Toledo, is president and Dr. C. H. Henninger, Pittsburgh, and Dr. John B. Morgan, Cleveland, are vice-presidents of the American Medical Golfing Association, which was organized in 1915.

ATLANTIC CITY COMMITTEE

The Atlantic City Committee is under the chairmanship of Dr. Walt P. Conaway, 1723 Pacific Ave., Atlantic City. He will be assisted by Drs. Iby R. Beir, John Pennington, Alfred W. Westney, and R. Rostin White.

The Northfield Country Club of Atlantic City is described as "certainly one of the most interesting courses in the district. Many championships have been held at Northfield, and the visiting doctors will be delighted with it in every sense of the word. It has a beautiful club house with every facility ready for the pleasure of the guest."

APPLICATIONS FOR MEMBERSHIP

All male Fellows of the American Medical Association are eligible and cordially invited to become members of the A. M. G. A. Write the executive secretary, Bill Burns, 4421 Woodward Ave., Detroit, for an application blank. Participants in the A. M. G. A. tournament are required to furnish their home club handicap, signed by the secretary. No handicap over 25 is allowed, except in the Kickers' Handicap (Blind Bogey). Only active members of the A. M. G. A. may compete for prizes. No trophy is awarded a Fellow who is absent from the annual dinner.

ANNUAL CONGRESS ON MEDICAL EDUCATION

The Thirty-first Annual Congress on Medical Education, Hospitals, and Licensure was held at the Palmer House, Chicago, Feb. 18-19, 1935.

Dr. Ray Lyman Wilbur, chairman of the Committee on Medical Education, American Medical Association, stated that many drastic changes in education are inevitable and that it is necessary to cut out and alter many previous conceptions. Medical education has made steady advances but must be purged of the less important details. The Joint Committee, representing the American Medical Association, the Association of American Medical Colleges, and the Federation of State Examining Boards, appointed to make a detailed survey of medical education, formulated a series of questionnaires to secure definite information concerning the methods of conducting medical colleges and to study the qualifications of those engaged in the teaching of medicine. The personal inspection was designed to obtain confidential information and to inspect the facilities and equipment used. The Canadian medical colleges have requested the same inspection. Up to Feb. 15, 28 medical colleges had been inspected and the detailed data from each college are being correlated. It has been recommended already that the approval of 2 of these colleges be withdrawn. The teaching of psychiatry was found to be more or less deficient. Wide variation exists in the teaching of public health. There is considerable lack of uniformity in the teaching of special subjects. In general, the preclinical subjects are better taught than the clinical subjects. Common sense is required in evaluating the type of instruction being given. The goal of medical service must be known before definite statements can be made. We may well be proud of the achievements already attained in medical education but must continue the development. The detailed inspection of all medical schools will require another year, and later it is planned to set standards for medical specialists.

Dr. Raymond Walters, president of the University of Cincinnati, presented a paper on "Should the Number of Professional Students be Restricted?" This subject was discussed from the standpoint of law, engineering, education, and medicine. There are about 160,000 lawyers, 236,000 engineers, 96,000 teachers, and 121,000 physicians in the United States. The number of professional students is increasing faster than the increase in population. This obtains in Europe. It is also true that the number of many other specific vocational workers is increasing. There is no effective control of the number of professional students, although it is realized that the education of an excess of professional students is costly to the taxpayer. There is now a surplus of carpenters, plumbers, mechanics, and other skilled laborers. Dr. Walters' personal suggestion for the solution is based on the greatest good to the greatest number. If quality of professional education be the first consideration, the quality of professional students will be sufficiently curtailed. No profession is overcrowded with efficient members. There is need for more professional students of outstanding ability and no room for professional students of mediocre ability. Character should be the first qualification with a sense of honorable service. Vitality, personality, and other attributes should be given ample consideration. The medical schools should be able to judge the students who will best serve humanity with proper regard to ethical conduct. Dr. Harold Ripins, secretary, New York State Board of Medical Examiners, stated that 22 per cent of students who enter

medical colleges fail to graduate. A sufficient number of physicians would be trained if each college limited its registration to two-thirds of its present number. Dr. Walter L. Bierring, president of the American Medical Association, stated that the problem of distribution was most important. Medical service by physicians should be extended in many directions.

At the dinner of the Federation of State Examining Boards, Dr. Ray Lyman Wilbur made a strong plea for cooperation with the Joint Committee now inspecting medical colleges. He referred to the decision of the Federation of State Examining Boards to accept the rating of the Association of the American Medical Colleges in regard to the approval of medical colleges. Dr. Irving D. Metzger, Pittsburgh, was installed as president of the Federation of State Examining Boards, which is a merited recognition of his long and efficient service. Reports of excellent work done by various State Boards of Licensure were made, especially in protecting the public from illegal medical practice and violations of the narcotic laws.

One session was devoted to a consideration of the question, "Should the Radiologist, Pathologist, and Anesthetist be Licensed to Practice Medicine?" Dr. W. C. Woodward, director of the Bureau of Legal Medicine and Legislation of the American Medical Association, outlined the legal responsibilities of radiologists, pathologists, and anesthetists and showed that each was actually practicing medicine and, therefore, it was necessary for each to have a medical license. Dr. T. H. McMechan, secretary general of the International Anesthesia Research Society, represented the anesthetists and presented many convincing arguments.

A report of the inspection of several osteopathic colleges made by Dr. Frederick Etherington, dean of Queens University Faculty of Medicine, created considerable discussion. Several osteopathic physicians who are members of various State Boards of Medical Education and Licensure considered the report unfair, as osteopathic physicians are required in most states to take the same examination in fundamental medical subjects.

UNAVOIDABLE COMPLICATIONS OF CHILDBIRTH

The antenatal examination of the expectant mother as a rather routine measure underlying the prevention and treatment of obstetric complications has been the practice for many years. Analysis of the urine during the period of gestation for the purpose of anticipating eclampsia and kidney complications and as a basis for their alleviation has a long and interesting history. Valuable information has been obtained by the use of the pelvimeter in determining the probable relative capacity of the pelvic canal and the estimated size of the child at term. To these precautionary measures many others have been added, and to-day the proper antenatal observation of the pregnant woman comprehends a thorough knowledge of her physical and functional capacities—the patient is individualized—and the conduct of her pregnancy and delivery is predicated upon this information. Searching investigations as to the cause of many of the complications of pregnancy have proved fruitful in providing a practical approach to their prevention; in others the basis for prophylactic and remedial treatment has not been discovered. In the light of present knowledge some of the most serious complications are unavoidable and the most thorough

antenatal supervision has little or no effect upon their incidence.

Pregnancy is primarily a normal process terminated by the physiologic function of labor. Such normality of progress and termination is the rule when fecundation has taken place in a normal woman, and under proper care and guidance she usually remains functionally and physically normal throughout gestation and delivery. However, in the 3 decades of the child-bearing period pregnancy itself often becomes the serious complication in those women with antecedent disease or functional inadequacy of one or more of the important organs. In many instances the added burden of the pregnant state is sufficient to lower the threshold of resistance to disease; the preëxisting pathologic process increases in intensity or extent. Anemia, hypertension, tuberculosis, renal and myocardial lesions assume more serious aspects. A distorted or juvenile pelvis, adequate for skeletal function in the absence of pregnancy, renders labor a complicated process and occasionally determines the fate of both mother and child. As complications during the period of pregnancy and at the time of labor they are unavoidable in the individual patient and are potent etiologic factors in the morbidity and mortality of pregnancy, labor, and the puerperium. Proper antenatal regimen and therapy may prevent disastrous results in some cases; termination of the pregnancy may be the only remedy in others.

A review of the mortality statistics of pregnancy, labor, and the puerperium reveals a startlingly constant ratio, throughout the period under analysis, between the incidence of deaths and the respective causes assigned therefor. This constancy of ratio obtains alike in those factors which are accidental and unavoidable as well as in those to which preventive measures are applicable. Ectopic gestation, abortion, accidental hemorrhage (including concealed hemorrhage with its high mortality from shock rather than from the excessive loss of blood)—none of these can be attributed to bad obstetric practice or to lack of antenatal supervision.

Reports from competent investigators of the causes of puerperal sepsis show conclusively that sepsis is not to be accounted for solely on the ground of instrumental, operative, or breech delivery. Fifty-five per cent of a large series of cases of sepsis occurred in normal deliveries, and the important conclusion was reached that "neither improvement in antenatal work nor increased dexterity or judgment in obstetric operations will have any considerable effect upon this moiety of the fatalities; the social status of the patient and the nature of the environment during pregnancy have little or no influence on the incidence of sepsis; . . . 50 per cent of puerperal sepsis mortality occurs under clinically normal conditions and is quite unpreventable."

There has been much criticism of obstetric practice in this country, both in lay and professional circles, because of the maternal mortality rate, high in comparison with that which is recorded in some other countries. Such criticisms cannot be tenable until they are based upon a more nearly uniform and scientific standard of reporting the causes of death and a thorough and exhaustive research into the influence of climate, racial characteristics, pure and mixed races, and preëxisting physical and functional abnormalities. The preventable and the unavoidable complications contributing to the mortality require identification in the reports. A fatality from fat embolus following fracture is not chargeable to bad surgery; no more can death in labor from concealed hemorrhage be laid at the door of bad obstetrics. Each is the unavoidable accident in the condition which it

complicates; it is rarely the result of an error in practice.—Editorial, *Current Medical Digest*, Jan., 1935.

THE DOCTOR'S DESK

The following true story was called to mind by Dr. Clarence Bartlett, of Philadelphia, upon reading the editorial "The Doctor's Desk," which appeared in the February, 1935, number of the JOURNAL.

The late Dr. Umpstead kept a very disorderly desk; it was the sole trial and tribulation of his wife's marital existence. She expostulated, but in vain. To protect himself the doctor took to locking his door and putting the key in his pocket whenever he left his office. Finally conditions became so bad that the desk was piled mountain high with magazines, letters, samples, and what not. They protruded over the entire circumference of desk. In front of the doctor's chair was a space just large enough to write a postal card or a prescription. The doctor saw the error of his ways and took a radical step for reformation. He had his desk moved to the corner of his office and went out and bought a new one.

COMMENTS AND EXCERPTS

Mother's Milk Found to Check Hemorrhage.—Mother's milk has a very special power to hasten the clotting of blood and therefore to control hemorrhage or bleeding. Prof. A. Solé reported recently to the Vienna Association of Physicians.

Curiously enough, animal milk does not have the same power to clot blood nor does colostrum, the preparatory milk secreted by the mammary glands during the first day or 2 after the birth of a baby.

Boiling the milk destroys the blood-clotting property, as the active substance, whatever it may be, cannot withstand heat. The human milk may be dried and an extract of the powder used to check bleeding. This extends its usefulness, since a supply can be kept on hand for use when fresh human milk is not available.—*Science News Letter*, Nov. 17, 1934.

Cancer Cases Reported from Medicinal Arsenic.—Cases of skin cancer caused by arsenic-containing medicines taken for other conditions have caused Drs. Clifford C. Franseen and Grantley W. Taylor, of Boston, Mass., to issue a warning to physicians to be very cautious in giving arsenic as medicine.

Nine cases definitely due to arsenic and 5 more cases probably caused by arsenic are reported by them (*American Journal of Cancer*, October, 1934). In 2 of these cases, the patients had been exposed to arsenic in the form of a spray for fruits and vegetables. But arsenic given as medicine for the relief of skin diseases and blood disorders caused the cancerous condition in the majority of the cases. The arsenic-containing medicine had been taken by some of the patients as long as 40 years before the cancerous condition appeared.

Arsenic has been a common constituent of quack cancer pastes, Drs. Franseen and Taylor also pointed out. They hold it has no place in the treatment of cancer.—*Science News Letter*, Nov. 3, 1934.

Infection After Operation Fought by New Method.—A new way of fighting peritonitis was demonstrated to surgeons attending the clinical congress of the American College of Surgeons by Dr. Edward L. Young, surgeon-in-chief of Faulkner Hospital and on the surgical staff of Massachusetts General Hospital.

By this method death following surgical removal of part of the digestive tract was reduced from 30 per cent to 2 per cent.

The method was originated by Dr. Herbert L. Johnson, of West Roxbury and Boston. It consists of injecting into the abdomen what Dr. Young called a "concentrated fraction of bovine amniotic fluid." At first it was used at the time of operation but now it is injected 4 to 6 hours before. This fluid, now obtained from cows at the time their calves are born, apparently has the power to stimulate healing in the abdomen and resistance to infection. Dr. Johnson first observed its effect in cesarean births and confined its use to these cases, obtaining the fluid from the patient.—*Science News Letter*, Oct. 27, 1934.

Failing to Nurse Children May Cause Breast Cancer.—Cancer of the breast is the penalty women pay for failing to bear and particularly to nurse children, in the opinion of Dr. Emil Bogen, of Olive View, Calif. Evidence for this theory, based on statistics and on animal experiments, was presented by Dr. Bogen at the meeting of the American Public Health Association.

Comparison of birth rates and of cancer death rates show that where the birth rate is low, the death rate from breast cancer is high. Furthermore, in urban localities, northern countries, and regions where small families and early weaning of the babies are customary the death rate from breast cancer is high. It also appears to be higher among unmarried women and married women who have not had children than among mothers of large families.

From experiments with white mice, Dr. Bogen finds an explanation for this. A derivative of the chemical substance, cholesterol, is capable of producing cancer just as some of the coal tars do when painted on the skin, he pointed out. This same substance, cholesterol, is present in the ducts of the female breast, both when it is producing milk and when it is not. In the absence of the normal drainage that comes with milk production and child nursing, this cholesterol may undergo the chemical changes that make it develop cancer-producing qualities, in Dr. Bogen's opinion.—*Science News Letter*, Sept. 8, 1934.

Giant Roentgen-Ray Tube Proving Its Worth in Cancer Cases.—First reports of the results of treating cancer by powerful gamma rays from the giant 900,000 volt roentgen-ray tube of the California Institute of Technology have been made by Dr. Albert Soiland, chief of the Soiland Clinic, Los Angeles.

"Encouraging" and "hopeful" are the words Dr. Soiland used in describing the results obtained with patients suffering from advanced cancer. Before the 5-year treatment period is over, Dr. Soiland and his associates feel that no definite conclusions can be drawn.

For the past 4 years, however, a group of advanced cancer patients have been undergoing treatment at the institute in Pasadena where the giant tube is housed and at Dr. Soiland's clinic where there is now a similar tube.

"We have seen results in a few advanced patients with cancer which had not yielded to treatment with our lower voltages," Dr. Soiland reported.

The shorter wave lengths of the rays from the big tube permit more of them to penetrate to the deeper layers of the body, he explained. This accounts for the following 3 distinct advantages over treatment by lower voltages. The period required for treatment is shorter; there is less skin irritation; and unpleasant stomach

sensations are largely avoided.—*Science News Letter*, Dec. 8, 1934.

MEDICAL ECONOMICS

A Chair of Medical Economics in Medical Schools.—A step in the right direction was taken recently by the Harvard University Medical School in the appointment of Douglass V. Brown, Ph.D., as assistant professor of medical economics. Dr. Brown is a member of the Department of Medicine; there is no Department of Medical Economics, as such, and Dr. Brown is the only man in the school working on this subject.

Although the question might be raised as to the occupancy of a chair of medical economics by one not a physician, it would seem from utterances already made by Dr. Brown that he is entering this new field with a fairly well-rounded conception of some of the basic problems involved. In the *Harvard Medical Alumni Bulletin*, January, 1935, Dr. Brown made the following statement:

"Payments to physicians and funds for research are intimately bound up with the national income, and economic prosperity may ultimately prove more important for medicine than immediate medical care or research.

"A given amount of funds spent for medical services may have quite different effects, both upon economic conditions and medical care, according to the sources from which the funds are derived. A billion dollars from taxation and a billion dollars from insurance, for example, are not wholly equivalent in their immediate and ultimate effects."

We need have no fear for the future of society, nor specifically the progress of medicine, if we are guided by clear thinking based upon fundamental facts and sound evaluation of the evidence at hand, differentiating between biased opinion propounded as established fact and irrefutable conclusions built upon real knowledge of biologic factors and known values.

COMMITTEE ON MEDICAL ECONOMICS.

Medical Service to the Indigent.—The Northampton County (Pa.) Medical Society is to be congratulated on the report of the result of the first year's experience with its plan of rendering medical service to the indigent poor not in institutions. The plan includes:

1. Elimination of so-called "poor doctors."
2. Maintenance of intimate patient-physician relationship.
3. Free choice of physicians.
4. Payment on a fee for service basis.
5. Supervision of all medical services by the county medical society.

The annual report shows a distinct saving to the taxpayer, while on the other hand there is an improvement in the type and quantity of services rendered.

COMMITTEE ON MEDICAL ECONOMICS.

The American League for Social Security.—The American League for Social Security has built up a propagandized bill for state medicine disguised as health insurance, and this bill is ready to be submitted to Congress as well as to all state legislatures, backed by the whipped-up masses equaling in number those clamoring for the Townsend Act.

This bill provides for politically controlled boards in every state, with myriads of sub-boards, county boards, city boards, investigators, the like of which would make the administrative force of prohibition appear infantile. The personnel of these boards need have no medical

training. They need only to be subservient to a patron saint who desires reelection. They have no interest in the patient—less in the physician—interest only in holding their jobs.

This bill places all contributed funds in politically controlled state treasuries, to be invested as seen fit by politically appointed commissions. This bill permits a politically appointed commission of lay people to use these funds to erect hospitals, clinics, laboratories, *et al.*, as they may see fit. This bill provides everything for administration first. Nowhere are standards of service considered nor restricted to the ethical profession. The benefits are limited as to time. If illness is not turned off within defined limits like a water faucet, the patient and physician are both where they started.

Guided by a tireless corps of propagandists, letters and telegrams are pouring into Washington by the mail-bagful from all over the country, demanding passage of this bill. This thing is alive and powerfully insidious.

Well-meaning sociologists and ill-intentioned radicals who have proposed something have charged the medical fraternity with proposing nothing. Shall a political boss decide that additional free clinics are needed in your community, keep your books, set your fees, disallow your claims, misinterpret your red-tape reports, and boss your night calls?

An indictment is out against the profession, brought in by a jury of sociologists and radicals claiming their action to be in the interests of masses who demand that something be done for them. That indictment cannot be met with lethargic protests of facts. Fire must be met with fire! The masses can be rallied to a proposition that is fundamentally right. Will the Medical Society of the District of Columbia evolve a plan to offset unsound impending legislation? Will it demonstrate that the medical profession in any community can handle adequately its own medical economic security problem?—*Medical Annals* (D. C.), Jan., 1935.

A Modification of The Detroit Plan in Administering Public Health.—Dr. Louis Van Hoesen, commissioner of the Columbia County Department of Health, Hudson, N. Y., presents a brief description of the plan which is now being applied in Columbia County in securing the participation of the profession in public health activities. It is hoped to inspire increased interest in the field of preventive medicine and to develop a system which will work efficiently for the promotion of public health and at the same time return a satisfactory income to participating physicians.

Since the public must be instructed concerning the value and need of many preventive measures and physicians were not in a position to appear as instructors urging the people to come for such services without appearing in a false light as soliciting work, it became necessary to organize so-called "educational clinics." These institutions were able to demonstrate to both physicians and the public the invaluable results obtainable through carrying on this work. That small-pox vaccination, diphtheria immunization, child-health supervision, and prenatal care are well-recognized procedures, available to every physician, and possessing such value as to demand systematic application, we are all aware.

That these measures have not been generally applied, is a regrettable fact; and that the medical profession has thus failed to develop a source of income is partly chargeable to their own oversight.

One great advantage of a unified health department lies in its opportunities to organize and systematize these functions of preventive medicine.

The Detroit plan is announced as a method of securing participation in public health work by the profession. It actually substitutes the private physician for the health staff worker and socializes preventive medicine by providing a nominal fee schedule which is lower than a reasonable rate, and paid from the tax budget; also encouraging all who so desire to receive treatments at public expense. Somewhat over 80 per cent of Detroit physicians have agreed to work under this plan. And how soon the tendency will be adopted to place curative medicine upon the same system of reduced fees at public expense, only a socialized people can determine. Vaccinations and toxoid treatments at 50 cents, if paid from public funds, or one dollar if the patient chooses to pay, must be compared with the return obtainable where all pay regular fees if able and the health department provides service for the very poor or those on relief.

In the clientele of each physician there are many families who still retain their individual independence and self-respect by continuing to pay their family physician his regular fee; and placing these people under a system of socialized medicine by any act of ours would be a foolish policy. There are also numbers of people who are at present supported by relief funds and while a staff of health workers are available, no doubt a considerable portion of these persons, in the light of economic considerations, should receive preventive treatments at free clinics.

Separation of individual families into 2 groups—those independent Americans who choose to select their own doctor and pay him, and those from the socialized beneficiaries who never did pay and never will—is a fundamental idea of the Columbia County plan. This separation can best be performed by the doctors, whose past experiences furnish the required information.

The plan adopted in Columbia County was first submitted in outline to the Columbia County Medical Society in May, 1934, where it was favorably received.

It was then developed through the following steps:

1. Census of all preschool children in county.
2. Checking census with completed records of immunizations and death records.
3. Lists mailed to each physician requesting him to select any to be referred for free service, and also asking reports of completed work, so that the efficiency of this system could be determined.

The result of this census and canvass indicates that the physicians of Columbia County and vicinity prefer to remain responsible for immunizing, vaccinating, and supervising the health of 37 per cent of all preschool children, thus leaving 63 per cent who must depend upon free service rendered by the staff of the health department.

Reports of financial returns to the men who have thus far supplied such information indicate that regular fees have been obtained for nearly all immunizations and vaccinations performed by private physicians; that their efforts to create activity in this work by sending out lists and notices have resulted in many paid immunizations by local physicians in families who would otherwise have neglected to secure treatment; and that the continued efforts to establish annual health examinations, child health supervision, *etc.*, must permanently increase the income of the medical profession, where willing participation is obtained.

In addition to the previously named procedures in which we solicit the aid of the medical profession, there remain several other functions which have been developed more or less by health workers.

Of these, the annual health examination, we believe, should be delegated entirely to private physicians, and these examinations should be urged upon every family with the purpose of securing diagnoses and treatment for cancer, Bright's disease, diabetes, anemia, *etc.*, while still in the early stages. Our nursing staff is instructed to urge this service.

On the other hand, any case-finding program in tuberculosis, where large numbers are given skin tests, as in high school groups, can obviously be done much more conveniently where such groups are assembled; and the follow-up with roentgen-ray and physical examinations can best be done by a specialist in the work.

The findings of these campaigns are referred to the physician, and his participation and support invited in carrying out treatment if needed.

Veneral disease clinics are held and attended chiefly by patients who have been referred by physicians. An improvement in this work is still obtainable through physicians reporting to the department the names of any persons who have discontinued treatment while under the physician's care. In these cases action will be taken to compel return to doctors' care.

Examinations of food handlers, which were included in the Detroit Plan for participation or substitution in health activities, have not been included in our system for the following reasons:

1. The laboratory and the microscope, rather than the stethoscope provide the facts needed.
2. The private physician could ill afford to accept a fee for reporting a condition which would disqualify a food-handling patient for this job.

We believe all needed examinations for food handlers should be made by a health department official.

The medical profession has expressed rather strongly its disapproval of free clinics. Where these clinics can be confined to immunizations, and preventive and diagnostic work among groups selected by physicians and referred for specific forms of examination or treatment, the objections to free clinics seem to be removed.

The profession should endorse this work under these conditions, thus displaying a real interest in securing such services for those who are unable to provide for themselves.

Furthermore such an attitude will justify an organized opposition to the introduction of any health insurance system.

If health insurance really insured health, the medical profession could give it consideration; but we know too well that governmental control means political control, and the less of it we tolerate in the practice of medicine, the better will be the health of the population.

A majority of the general public would still prefer to purchase their own medical services and deal directly with their own doctor, rather than be assessed or taxed to support a system under which they would be treated by politically appointed physicians, subject to such codes or rules as the dictators in power might establish.

CONCLUSIONS

Summarizing the details of the system which is in operation in Columbia County, there seems to be evidence to sustain the following conclusions:

1. The tendency to encourage socialized medicine is avoided.
2. The private physician is supplying preventive treatment for a large group of individuals who would never attend free clinics.
3. The medical profession better understands that the purposes of a health department are to get real results

and to avoid intruding into the field of private practice.

4. Financial returns and established fee schedules, both for the present and, still more important, for the future of medical practice, are satisfactorily retained.

5. The cost of providing the considerable amount of free service is economically provided, without introducing political or bureaucratic factors into the practice of medicine.—*N. Y. State J. M.*, Dec. 15, 1934.

And Yet Another "Clinic"!—Comes now the welcome news that a "pay" clinic is to be established for the benefit of those who need attention to the ear, nose, and throat. This is established by 16 of our very best specialists, all of whom are members of the staffs of our largest hospitals.

A clinic may be described as a place where first-rate professional attention may be had for a very little or no money. A "pay" clinic is one where the recipient is expected to pay a small fee. There is probably no member of this staff who does not agree that all hospital privileges are abused and that many persons apply to the hospital for aid who are abundantly able to pay. We do not know very much about "God's poor." We do not know how many of them are really poor, how many have radios, automobiles, good clothes, and go to the movies. In the old days poor people were poor people; now the ward cases have boudoir caps and lace nighties. Hot-house flowers adorn the sick room which undoubtedly hastens convalescence and saves the hospital expense thereby. When the patient goes home, a follow-up system sees that medical care is continued and a social worker, *e pluribus unum*, sees that medical care is continued and notes the success of the operation or treatment. This would be a good time to note, in addition to factors of medical interest, the surrounding conditions such as luxuries, radios, and other evidences of well-being. Now it may be that this system is in force, but we have never seen such a report.

There seems at the present time to be a total disappearance of what used to be called self-respect. Where are the poor but proud? The present-day mind is an unprincipled mind. Why should I pay for a thing which I can get for nothing? Gone is the type of mind which, when overtaken by sickness, saves and scrapes in a small way until he has discharged his financial obligation.

Now this new clinic is probably no different from any of the other medico-charitable organizations, except that the small fees which are received accrue to the members of the staff. The "cut" will not be large. It will for the most part be a labor of love, yet it is certain to meet with a certain amount of disfavor because of its financial principle. The notion of the "cut-price doctor" is inseparable from it. Instead of the doctor giving a greatly reduced fee to someone whom he knows to be worthy he will treat a stranger who may or may not be worthy. It is a very dangerous precedent. It opens the way to still further hospital abuses; it still further pauperizes the poor and it makes imposition and mendacity still more easy. It immediately comes in competition with similar departments of hospitals already organized at great trouble, pains, and expense. We now have a cancer clinic, a birth control ditto, a hay fever, a tumor, a heart—in fact, a clinic for almost every known disease, many of them largely run by "trained nurses" who often railroad profitable cases into the offices of their doctor friends. This clinic will probably be just like the rest of them. Not long ago one of the most prominent doctors of this city informed the writer, "When you send a case into the XYZ hospital you need not expect to see that patient again.

That is what we are there for, and that is the way we do it." This was the most frank and brazen statement that could possibly be made, yet it is what is evidently going on all the time.

It is to be believed that the abuse of clinics and hospitals could be stopped. Let the matter be investigated and where there is a law against it let this law be enforced. If we are going to have State Medicine, let it begin here and let the black list grow. Report nurses who purvey to particular doctors and see to it that they are tried and if guilty removed from their positions of confidence and trust. Clean house and clean it thoroughly. Close the offices of nurses who are practicing medicine under the guise of laboratories and drive them out of business. And establish a committee in the Rhode Island Medical Society which will represent the profession and stamp out an abuse which is a scandal to both physicians, nurses, and the public.—Editorial, *The Rhode Island Medical Journal*, Jan., 1935.

Additional Data on Medical Economics

Northampton County p. 557

MEDICOLEGAL

Judge Frederick A. Marx, sitting in the Orphans' Court of Philadelphia, issued the following ruling March 22, 1935. Unless there is an express agreement, a hospital staff surgeon operating on a ward patient is not entitled to extra compensation. A member of the staff of St. Joseph's Hospital, Philadelphia, presented a separate bill against the estate of Victor F. Van Stan after the hospital had rendered its bill, which latter bill was paid. It appears that the surgeon had performed a major operation on the deceased at the hospital June 20, 1934, death occurring several days later. Judge Marx decided the estate was not liable on the claim of the surgeon whom he found acted in the "line of duty." The estate amounted to \$9,364, which was awarded to a widow, 3 sons, 4 daughters, and a grandson.

Paternity: Blood-Grouping Tests to Determine Paternity.—The plaintiff sued the defendant for damages for a carnal assault, alleged to have been committed by the defendant, as a result of which the plaintiff gave birth to a child. The defendant, denying all of the material allegations of the complaint, requested the court to require the plaintiff and her child to submit to a physical examination pursuant to the provisions of section 306 of the Civil Practice Act of New York, and, in connection therewith, to permit the taking of samples of blood of the plaintiff and her child for examination and analysis. Section 306, Civil Practice Act of New York, provides in part as follows:

In an action to recover damages for personal injuries, if the defendant shall present to the court satisfactory evidence that he is ignorant of the nature and extent of the injuries complained of, the court, by order, shall direct that the plaintiff submit to a physical examination by one or more physicians or surgeons to be designated by the court or judge. . . .

The examination sought, said the Supreme Court of New York, Kings County, is clearly relevant to the issue of paternity. The question to be determined is whether the Landsteiner blood-grouping test, which is here sought to be applied, is generally recognized as sufficiently trustworthy for use as an aid in ascertaining facts in a legal proceeding. If so, the court said, then by general common law principles the proposed examination should be permitted. The law has at all times, said the court, even though on occasions haltingly, appreciated the need of keeping abreast of achievements in fields other than

its own. It has thus recognized as trustworthy, and has made use of, numerous scientific advantages. The Binet-Simon Intelligence Test was used during the course of a Connecticut trial. *State v. Wade*, 96 Conn. 238, 113 A. 458. Experts are permitted to testify that a given specimen of blood is human and evidence of fingerprints is admitted to prove identity. *People v. Roach*, 215 N. Y. 592, 109 N. E. 618. With respect to the present case, the court said, research of medical journals and foreign law reports discloses that many thousands of similar cases have been before the courts of European nations. The evidence submitted on the hearing of this case, continued the court, and a reference to scientific works cited in support of the application, lead to a conclusion in keeping with that of the Supreme Italian Court of Cassation (*Lattes, Individuality of the Blood*, p. 254), where the following appears:

As regards the reliability of the results obtained by this method the latest studies and investigations show that though the determination of the blood groups affords no positive evidence for a declaration of filiation in a given case, it does, on the other hand, furnish incontrovertible evidence for the exclusion of this relationship when the child's blood group does not agree, according to a definite scheme, with that of the supposed father.

Naturally, continued the court, the application of scientific tests will not be permitted where such tests have not attained definite and dependable results accepted generally by those qualified to judge. Thus, a federal court has refused to permit the use of the systolic blood pressure deception test because it had not gained sufficient scientific recognition. *Frye v. United States*, 54 App. D. C. 46, 293 Fed. 1013, 34 A. L. R. 145. The Landsteiner blood-grouping test, on the other hand, has been generally accepted by the medical profession, said the court. The Supreme Court was convinced that the reason and the exigencies in the present case fully justified the granting of the application, subject to such restrictions and directions as the court might deem proper. On appeal, however, to the appellate division of the Supreme Court, second department, the order directing the plaintiff and her child to permit the taking of blood for the purpose of determining the defendant's paternity of the child was reversed. The appellate division of the Supreme Court stated that the plaintiff might submit to the taking of a specimen of her own blood, but it plainly would determine nothing. She admits that she is the mother of the child. A blood test of the defendant and the child might possibly determine the defendant's non-paternity, but it was not claimed, nor was there any evidence in the record to show, that the test would determine the defendant's paternity. The child was not a party to the action, continued the court, and while the court of chancery has an inherent jurisdiction over the welfare of an infant, a ward of the court, nothing in this case indicated in the slightest that the welfare of the child was in any way involved or that the blood test could possibly be beneficial to the child. Section 306 of the Civil Practice Act, concluded the court, had no application to the facts of the case.—*Beuschel v. Manowitz* (N. Y.), 271 N. Y. S. 277; 272 N. Y. S. 165.—(*J. A. M. A.*, Jan. 26, 1935.)

HOSPITAL ACTIVITIES

Are There Too Many Blood Transfusions Performed?—The transference of blood from the well to the sick has in some localities become a veritable fetish. All types of conditions ranging from minor complaints to diseases capable of quickly terminating life are treated by the transfusion of blood. As a result, the hospital superintendent is often importuned to provide money

to supply this remedy, and in some instances this expense runs into many hundreds of dollars annually.

A lay superintendent naturally hesitates to deny a patient the benefit of a remedy that physicians contend will be beneficial. This is particularly true when the request for blood assumes the proportions of an emergency, a classification often undeserved.

A small emergency fund might be set aside for the purchase of blood for indigent patients. A staff committee might be requested to formulate a routine to control this troublesome matter. When a medical administrator is at hand he can often judge as to the validity of the staff physician's request. On the other hand, a firm insistence by the executive that only in emergency cases will this expense be borne by the hospital is frequently effective. Particularly is this practice to be condemned when it is employed by an unethical physician to shield himself from blame when the patient approaches death.

The pendulum will, no doubt, swing backward in measuring the popularity and worth of blood transfusions and the public, recognizing the method's limitations, will be less likely to demand blood transfusions in hopeless cases.—Editorial, *The Modern Hospital*, Nov., 1934.

Should Practical Nurses Care for Hospital Patients?—The pressure to allow practical nurses to do institutional work is growing daily. More militant members of the various cults demand that the community hospital open its doors to them.

Most institutions have ignored these requests. Here and there one finds individuals of high idealism and considerable skill who are not qualified by law to practice medicine, nursing, or any of the other branches of the healing arts. Yet they are capable of rendering a good grade of medical service in a narrow field. On the other hand, hospitals that desire to be recognized by national medical and nursing associations and by state boards of medical education must of necessity refuse to allow such persons to attend patients.

The American Medical Association insists that a hospital which it approves for the training of interns shall provide registered nurses who are graduates of schools of nursing recognized by the state board of nurse examiners. When undergraduates are being trained they should be supervised by registered graduates in nursing.

The practical nurse might serve in the hospital as a nurse attendant under the direct supervision of a graduate nurse. The former should not and cannot be permitted the responsibilities and prerogatives of one who possesses a degree in nursing.—Editorial, *The Modern Hospital*, Nov., 1934.

How Should Consultations on Ward Patients Be Conducted?—In an ideal consultation, the physician in charge and one or more of his specialty advisers are present at the bedside of the patient. Too frequently to obtain a specialist's opinion is a matter of lengthy correspondence, letters often being received too late to be of real service to the patient. The patient's interests are best served when the surgeon and the clinician are each required to prove their diagnostic points to the satisfaction of the other. Mere expression of a casual opinion as to the presence or absence of indications for an operation is of little aid to the physician in charge. In some institutions no consultation may be answered except by a member of the major staff. This policy is followed because the assistants on the surgical or medical services, while frequently young men of skill, have had less experience than their chiefs. No opinion can

be too carefully considered when the life of a patient may be at stake.

In other institutions 2 types of consultation request forms are used. A colored form designates that only a chief may answer the consultation, while a white form implies that no emergency exists and a routine opinion only is asked. There is much to commend such a system. Consultations are often too lightly considered by the consultant whose opinion is sought. In the first place, specialty opinions should be prompt, concise, and well considered. To advise any operative or therapeutic procedure and then to fail to return later to learn of its efficacy is a mark of deplorable indifference to the welfare of the patient.

A central point for the reception of consultation requests and a specified officer who shall transmit by telephone information as to the presence of an emergency request are prime requisites for the success of any system. Too often valuable time is lost while an opinion is being sought from the consultant.

Whatever system is adopted, the presence at the bedside of the patient of both the physician in charge and his consultant is highly desirable. Consultation on ward patients should be no less thorough and prompt than that on patients from whom the consultant will expect a fee. The hospital administrator should demand prompt response to consultation requests and with him should rest largely the responsibility of providing the means by which this is accomplished.—Editorial, *The Modern Hospital*, June, 1934.

INDUSTRIAL MEDICINE

Benzine, Toluol, and Xylol.—Shortly after benzol came into common use it was found to be poisonous, causing an anemia from which recovery was slow, and in some cases, impossible. Manufacturers, on being approached as to the necessity of either getting rid of benzol or ventilating the rooms in which it was used, claimed either that it was not as dangerous as represented or that no ventilation scheme was necessary for getting rid of the fumes. Some even said, "This interference with our business will ruin us."

Things have changed somewhat since those days. Those who use benzol now are satisfied as to the danger. They agree that the proper sort of ventilation will prevent the accumulation of fumes in the factory working spaces and thereby allow the workers to continue without injury to their health.

Fortunately, some other preventive measures have been found. Although benzol is a first-class solvent, a substitute can easily be used, perhaps less quick in action, but certainly less dangerous. If the amount of benzol used in the course of the day is halved, the dangers are halved. Let caution be observed, however, in providing a substitute. Some hopeful manufacturers reason that, although as benzol was known to be dangerous, toluol and xylol were not known to be dangerous; therefore, it was safe to use the latter 2 as substitutes. This reasoning was wrong. It ought to be apparent that if one chemical substance is similar to another known to be poisonous, the first is probably poisonous, too; and this is exactly what is now being proved true. Toluol and xylol, very close in chemical composition to benzol, are much like it in their effects upon the human system. They, in their turn, require substitution or ventilation. The great principle upon which the prevention of occupational poisons is founded is merely the dilution of the poisonous gas which workers breathe. Petroleum naphtha is now being used as a satisfactory substitute.

As far as use is concerned, there is little to choose between the 3 chemicals: Benzol, toluol, and xylol. Therefore, some other substitute or diluent will have to be selected if poisoning is to be avoided without ventilation. Nearly all solvents are unpleasant, if not dangerous, to breathe. Their volatility is the characteristic which necessitates ventilation.—Editorial, *The Industrial Bulletin*, Feb., 1935.

PHYSICAL THERAPY

The Physical Therapy Service—How It Should Be Organized.—Although a department of physical therapy in a general hospital is always a source of gratification to the administration because of its consistent profits, still it cannot function satisfactorily without efficient professional control. The first problem in organizing such a department is, who shall be in charge? The doctor in charge should be one who has had both medical and surgical training and who has some knowledge of orthopedics. He should be given a free hand in selecting a supervising or chief technician who is capable of serving him in the same way that the head nurse on any hospital service serves the attending surgeon or physician. Ordinary physical therapy technicians do not always make good chiefs. Tact, diplomacy, and administrative ability are necessary qualities because of the frequent contacts the chief must make with doctors from other departments. The efficiency of the department is entirely the responsibility of the chief technician.

The assistant technicians, who are selected by the chief, should be entirely responsible to her. The chief should also be empowered to recommend changes in personnel. Due to her numerous administrative duties, the chief should not be expected to give routine treatments unless there is a clerk to handle the department's charts and records. She can, however, take on cases requiring special technic that cannot be handled by the other technicians, such as eye cases and special rectal and pelvic conditions.

The doctors on the physical therapy service should be used by the other services for consultations. Consultation requisitions should be promptly complied with and notes made on the regular charts of the patients concerning physical therapy. The closer the team work between the physical therapy service and the other services in the hospital, the greater usefulness will be found for physical therapy.

The ideal construction under all circumstances has not yet been achieved. The general tendency is to squander too much money on construction, leaving too little for equipment. The equipment earns money, while the extra construction cost simply increases overhead.

The duties of technicians should be varied at least every 2 months. It has been found advantageous to require the staff, except for the chief, to rotate in regular progression. This means that all the personnel must be qualified to do everything and eliminates the ordinary workers from the service.—*Archives of Physical Therapy, X-Ray, Radium*, Jan., 1935.

PUBLIC HEALTH

Peril of Filled Teeth.—Filled teeth as a hidden source of infection is discussed by W. H. Ogilvie, a surgeon dentist of Guy's Hospital, London, in *The Practitioner*. According to Dr. Ogilvie, it is the carefully preserved tooth which is likely to have some infective material down in its roots. "Our own teeth," he says, "are better than the finest set we can buy, and we

are all anxious to escape as long as possible the hallmark of middle age, the dental plate. But in our sentimental attachment to our own we are apt to preserve units which have long been no more than masses of cleverly jointed metal—useful for mastication, triumphs of dental skill, but highly dangerous."

Antitoxin Like Whiskey Improves with Age.—Public indignation was recently aroused over distribution by a Pennsylvania State Health Department official of allegedly "stale" diphtheria antitoxin which was said to have caused the death of at least one child. In the discussions which ensued in the press and over the air, scientific aspects of the situation seem to have been overlooked.

The questions of breach of faith on the part of the health official and of possible collusion between him and the manufacturer of the antitoxin may be left for the courts to decide.

The question of the freshness and potency of the antitoxin can be settled by science.

Samples from the same lot as that alleged to have caused the death of the child and from other lots manufactured by the same laboratory have been examined by the U. S. Public Health Service, which controls the interstate sale of biological products like diphtheria antitoxin. These samples were found fully potent.

Health officers and physicians throughout the country have since been advised by the federal health service that antitoxin from this laboratory is perfectly safe. The federal health authorities have found no reason to revoke the laboratory's license.

The bogeyman of "stale" antitoxin can also be laid by science.

Freshness is important with most biologicals such as serums and vaccines but not with diphtheria antitoxin. Redating antitoxin after samples of a lot have been tested is accepted practice. There is even an advantage in using antitoxin that is not brand new. In the words of one health officer, diphtheria antitoxin, like whiskey, improves with age.

Experienced physicians prefer to use diphtheria antitoxin that has aged at least one year because the older product, while still able to neutralize the poison that the diphtheria germs are spreading through the body, causes a less severe reaction when given to the patient.—*Science News Letter*, Mar. 23, 1935.

Eugenics Exposition Opened in Germany.—According to the *New York Times*, in opening the exposition, "Miracles of Life," in Berlin, March 23, Dr. Wilhelm Frick, minister of the interior, announced an impending decree providing that only "hereditarily healthy and racially valuable persons" would marry in the future.

The desired result would be achieved by making wedlock dependent on health certificates granted only to persons meeting the above requirements. A German law already provides for sterilization of the racially unfit.

The Eugenic Exposition constitutes an important part of the Hitlerite campaign for more and better babies.

The objects of the show are to demonstrate that "a primary duty is to the family as the basic unit of a racially pure people" and that "one owes it to himself and his country to know about his body and its importance to later generations."

Women displayed keen interest in the mothers' school that showed new theories of child-rearing, conserving work power, caring for the needy, and increasing self-help abilities. An outstanding exhibit was that of the extensive Nazi welfare organization.

Novel Method to Stress Accident Prevention.

A novel method of stressing accident prevention was employed in Evansville, Ind., recently, when 2 boys who had been seriously injured in accidents gave talks to a group of about 250 boys present at a meeting at the Deaconess Hospital.

Both of the boys who had been injured were patients at the hospital and urged their hearers to profit by the misfortunes which had befallen the speakers.

Talks were also made by traffic officers of the city, by the business manager of the hospital, and by the secretary-manager of the local automobile club.

The boys were taken on a tour of the hospital and roentgen-ray pictures together with an explanatory talk were shown in the solarium.—*Hospital Management*, Mar. 15, 1935.

Morbidity in Pennsylvania in January, 1935

Locality	Disease				
	Diphtheria	Measles	Scarlet Fever	Typhoid Fever	Whooping Cough
Aliquippa	0	8	22	0	2
Allentown	3	3	9	0	26
Altoona	2	135	25	0	15
Anabridge	0	0	0	0	0
Arnold	0	15	6	0	0
Beaver Falls	0	1	9	0	2
Bellevue	0	0	1	0	0
Berwick	0	1	38	0	0
Bethlehem	0	0	1	0	2
Braddoek	0	28	0	0	6
Bradford	0	36	1	0	11
Bristol	2	0	0	0	11
Butler	0	100	2	0	0
Canonsburg	0	14	3	0	0
Carbondale	0	0	1	0	0
Carlisle	0	0	2	0	0
Carnegie	0	4	1	0	0
Chambersburg	0	1	10	0	0
Charleroi	1	29	4	0	2
Chester	1	1	1	0	3
Clairton	2	2	1	0	0
Coatesville	0	0	0	0	1
Columbia	0	1	0	0	9
Connellsville	0	19	3	0	0
Conshohocken	0	0	1	0	3
Corapolis	0	7	36	0	0
Dickson City	0	0	0	0	0
Donora	2	24	2	0	8
Dormont	1	1	0	0	2
Du Bois	0	24	4	0	0
Dunmore	0	5	1	0	1
Duquesne	0	0	0	1	1
Easton	1	1	12	0	11
Ellwood City	0	5	0	0	0
Erie	1	3	20	0	2
Farrell	0	0	0	0	0
Franklin	0	27	5	0	0
Greensburg	0	0	0	0	0
Hanover	0	1	4	0	8
Harrisburg	5	32	14	0	13
Hazleton	2	27	5	0	2
Homestead	0	5	24	0	0
Jeannette	0	7	0	0	0
Johnstown	9	29	15	0	0
Kingston	1	14	4	0	1
Lancaster	0	6	65	2	0
Latrobe	0	2	1	0	2
Lebanon	0	1	0	0	0
Lewistown	0	2	1	0	1
MeKees Rocks	1	6	3	0	1
McKeesport	1	34	4	0	2
Mahanoy City	0	1	3	0	0
Meadville	0	0	1	0	0
Monessen	0	11	3	0	10
Mount Carmel	0	0	1	0	0
Munhall	0	5	26	0	0
Nantioke	0	18	0	0	0
New Castle	1	2	5	0	4
New Kensington	2	58	4	1	0
Norristown	0	1	4	0	13
North Braddock	0	19	2	0	0
Oil City	2	0	2	0	29
Old Forge	0	0	0	0	0
Olyphant	0	1	0	0	0
Philadelphia	20	24	340	1	393
Phoenixville	0	0	1	0	0
Pittsburgh	16	210	111	0	78
Pittston	0	0	0	0	0
Plymouth	0	1	1	0	0
Pottstown	0	2	5	0	0
Pottsville	2	0	3	0	0
Reading	1	16	43	0	33
Seranton	2	269	10	0	5
Shamokin	0	0	0	0	0
Sharon	0	29	3	0	2
Shenandoah	1	0	7	0	0
Steelton	0	0	0	0	0
Sunbury	0	2	1	0	5
Swissvale	0	21	4	0	1
Tamaqua	0	0	7	0	0
Taylor	0	6	0	0	0
Turtle Creek	0	7	7	0	0
Uniontown	1	69	3	0	0
Vandergrift	0	0	14	0	0
Warren	0	0	8	0	0
Washington	0	22	8	0	4
Waynesboro	0	0	14	0	0
West Chester	0	0	0	0	0
Wilkes-Barre	7	12	4	0	6
Wilkinsburg	1	73	37	0	16
Williamsport	0	84	15	0	24
York	2	5	2	0	2
Townships					
Allegheny County:					
Harrison	0	2	1	0	1
Mt. Lebanon	0	0	0	0	0
Stowe	0	1	4	0	0
Delaware County:					
Haverford	0	1	0	0	5
Upper Darby	2	14	9	1	14
Luzerne County:					
Hanover	2	2	0	0	0
Plains	0	4	3	0	0
Montgomery County:					
Abington	0	0	3	0	7
Cheltenham	0	0	6	0	8
Lower Merion	0	0	4	0	7
Total Urban ..	97	1653	1090	6	815
Total Rural ..	108	6142	1370	17	601
Total State ..	205	7795	2460	23	1416

TUBERCULOSIS ABSTRACTS

A Review for Physicians

PREPARED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Published through the coöperation of the Pennsylvania Tuberculosis Society and The Medical Society of the State of Pennsylvania

PNEUMOTHORAX treatment, somewhat slowly adopted by the American medical profession, has now established itself as one of the most important weapons in the fight against tuberculosis. For some years there has been felt a need for more precise data so that pneumothorax therapy might be fairly evaluated. A Committee on Artificial Pneumothorax of the American Sanatorium Association, after 4 years' work, completed a survey of pneumothorax in representative American tuberculosis sanatoria covering the period 1915-1930. Such subjects as the methods of collapse, the termination of pneumothorax therapy, the results derived from it and others were investigated through the questionnaire method and statistical analysis. The Committee published its report recently in the *American Review of Tuberculosis*. It is possible here to offer only brief extracts of the study and the more important conclusions.

RESULTS OF PNEUMOTHORAX

Of 50 sanatoria which volunteered to collaborate, 24 furnished data on pneumothorax sufficiently complete and suitable for study and tabulation. The study divided itself into 2 parts: the first was designed to ascertain in what proportion of patients pneumothorax therapy had been attempted, the proportion of "operative failures" and other related information, while the second part consisted of detailed case records, the total number of which submitted was not so large, probably because of the exacting criteria required.

Terms Defined

To obtain comparable data it was necessary to define a number of terms. *Intentional* termination of pneumothorax was assumed when refills had been allowed to relapse. Termination was considered *unintentional* when oblitative adhesions had encroached on the pleural cavity. The term *pneumothorax treatment* required that there must be a demonstrable pleural sac and the patient must have received at least 100 c.c. of air or gas at regular intervals over a period of at least 3 months.

Very important, not only for this study but for consideration of pneumothorax in general, was the effort of the committee to define precisely what is meant by *effective collapse*. Keeping in mind clinical, roentgenographic, and laboratory criteria, the committee decided that the following 3 conditions should be met, or at least 2 of them, when the third was doubtful or not stated:

1. Disappearance of symptoms.
2. Disappearance of bacillary sputum.
3. Demonstrable closure of cavities, especially roentgenographically.

Statistical Data

The incidence of pneumothorax reported by the sanatoria varied from 1 per cent to 34 per cent with an average of approximately 10 per cent. Twice as many females as males received pneumothorax treatment and by far the largest number was between the ages of 20 and 35—an age distribution corresponding to the age-period of greatest frequency of pulmonary tuberculosis.

Approximately 40 per cent of the cases which received pneumothorax treatment showed con-

siderable cavitation, that is, destruction involving the collapsed or "treated" lung, and 25 per cent moderate cavitation, making a total of about two-thirds having more or less marked pulmonary destruction prior to beginning pneumothorax therapy.

The contralateral lung appears to have been essentially uninvolved in about one-third of the cases studied; slight lesions were recorded in a little over one-third; and moderate ones in a smaller group. Very few cases with contralateral cavitation were recorded.

Effective collapse was obtained or maintained in 38 per cent of the cases. In nearly two-thirds of the series it was necessary to discontinue treatment prematurely, most frequently because of the development of pleural complications. Two factors, small proportion of cases susceptible to effective collapse, and forced premature discontinuance of collapse, appear to limit most seriously the success of pneumothorax therapy.

General Conclusions

Effectiveness of collapse of the diseased areas is the greatest single factor in obtaining successful results, whether immediate or more remote. It seems obvious that valuable time is often lost in continuing over a long period a poor pneumo-

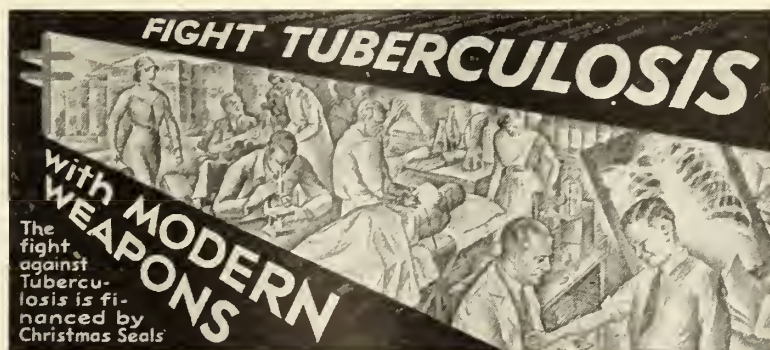
thorax when other and more promising measures are available, or when the patient is obviously deriving no benefit from the procedure.

The data furnished no substantial support for the common impression that patients under 20 years of age respond poorly to collapse therapy. In fact, measured by immediate results and effectiveness of collapse those under 35 fare better than those over that age. Wider use of pneumothorax in the group under 20 seems indicated.

The later results, in general, ascertained 1 to 15 years after termination of pneumothorax treatment, appear distinctly gratifying. Although a considerable number of patients could not be traced, more than 70 per cent of those followed were still living and of these three-quarters were able to work. Thus, with due consideration of its very considerable limitations, artificial pneumothorax appears to be undeniably one of the most valuable therapeutic measures in the treatment of pulmonary tuberculosis. We may further add that from this study its discontinuance seems warranted in many cases after a reasonably adequate period of effective treatment, which cannot be too dogmatically predicted.

A Survey of Artificial Pneumothorax in Representative American Tuberculosis Sanatoria, 1915-1930, Peters, Pope, Morriss, Packard and Miller, Am. Rev. of Tuber., Jan., 1935.

April first is the opening date for the educational campaign of tuberculosis associations. This year emphasis will be placed on the importance of early diagnosis in order that treatment may be begun promptly, modern methods of treatment such as collapse therapy, the need of sanatoria, and social rehabilitation of the tuberculous patient. The poster is designed to suggest that medical science is a moving, living enterprise in step with the times. Attractive booklets are ready for distribution. Newspaper publicity, radio talks, and public meetings will help to impress the public with the need of obtaining scientific medical service. Senior medical students will be presented with an attractive brochure on tuberculosis. The coöperation of all physicians in this enterprise is keenly desired by all tuberculosis associations.



Reproduction of 24-sheet poster to be used in the 1935 Early Diagnosis Campaign

Membership vs. Fellowship

There is considerable confusion relative to **Membership** and **Fellowship** in the American Medical Association.

A member of a county medical society automatically becomes a member of the State Society and the American Medical Association but not a Fellow of the American Medical Association. To become a **Fellow** of the A. M. A., he must make **special** application and pay to the American Medical Association the annual dues of \$7.00.

About 2000 of the 8000 members of our State Society who pay \$7.00 per year for their subscription to the *Journal of the A. M. A.* are not Fellows **only** because **they have never applied for Fellowship**. Every member of the State Society should become a **Fellow of the A. M. A.**

Only Fellows may register or take part in the annual meeting, which will be held in near-by Atlantic City, June 10-14, 1935.

American Medical Association

535 North Dearborn Street, Chicago

Application for Fellowship

..... 19.....

I hereby make application for Fellowship in the AMERICAN MEDICAL ASSOCIATION and subscribe for The Journal for one year from date. I am a member in good standing of the County Medical Society, a component branch of the State Medical Association.

N. B.—Seven dollars is deposited with this application, of which amount should I be granted the Fellowship applied for, \$6.00 is to be credited to my subscription for THE JOURNAL. The Fellowship for which this application is made is to be subject to the Constitution and By-Laws of the American Medical Association.

Signed.....

NAME IN FULL

Street City

County State

Qualifications for Fellowship—The members in good standing of the constituent state and territorial medical associations of the American Medical Association shall be members of the A. M. A.

Any (1) member of this Association, who, on the prescribed form. (2) shall apply for Fellowship and subscribe for THE JOURNAL, (3) paying the annual dues for the current year, shall be a Fellow.



THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA

OFFICERS' DEPARTMENT

WALTER F. DONALDSON, M.D., *Secretary*, 8104 Jenkins Arcade, Pittsburgh, Pa.

HEARING ON HOUSE BILL NO. 188

The hearing before the Insurance Committee of the House of Representatives held in the Capitol Building, Harrisburg, March 26, 1935, on the Compulsory Health Insurance Bill (House Bill No. 188) introduced and sponsored by the Honorable Lilith Wilson, from Berks County, one of the 2 members of the Socialist party in the present Pennsylvania Legislature, was conducted in the dignified and intelligent manner which seems to have characterized many of the hearings conducted up to this time during this session of the legislature.

The bill was supported before the committee by S. C. Laidler, Ph.D., introduced by its sponsor and by a representative each from an employed and an unemployed group from Berks County.

Chairman C. L. Palmer of the Public Health Legislative Conference of Pennsylvania introduced the opponents of the bill, including a representative each from the Pennsylvania Dental, Hospital, and Pharmaceutical associations, as well as the president and the secretary of The Medical Society of the State of Pennsylvania, and the chairman of its Medical Advisory Committee to the State Emergency Relief Board. The representative of the State Nursing Association hailing from York County was gallantly introduced to the committee by its chairman, the Honorable J. M. Flinchbaugh, also from York County.

The questions asked, of all those who spoke, by several members of the House Committee, evidenced considerable knowledge of the forms and effects of European systems of compulsory health insurance and seemed to reflect the conviction that sickness service was something that the American people cannot be compelled to accept.

The week following the hearing on the Sick-

ness Insurance Bill (House Bill No. 188) action on the bill was by majority vote of the House Committee indefinitely postponed, only to be followed on the same day by the introduction into the House of another health insurance bill—the long-promised Model Bill of the American Association for Social Security, which will probably be known as the Epstein Bill (House Bill No. 1959).

If any of our members believe that life for the members of our state and county society committees on public health legislation is "just a bowl of cherries," let them review the paragraph above and then contemplate the situation created by the prompt introduction by the chiropractors of another bill (House Bill No. 1759) to replace House Bill No. 494, which is discussed on page 542 and reported as having been unfavorably recommended by the House Committee on Education. The struggle to maintain high licensing standards for practitioners of the healing art is and will continue to be endless.

1935 COUNCILOR DISTRICT MEETINGS

Councilor District Meetings have been announced as follows:

First Councilor District, at Philadelphia, April 10.

Second Councilor District, at Reading, September 19.

Sixth Councilor District, at State College, May 16.

Tenth Councilor District, at Beaver Falls, May 9.

In each instance a program has been arranged marked by scientific and socio-economic discussions which will well repay attendance, even by those who may find it necessary to travel many miles. Details of the various programs will be mailed to the entire membership of each councilor district as well as to State Society members

and other physicians of the adjoining counties.

The only program information available at this time is that regarding the Beaver Falls meeting, which is to be an all-day and evening affair. In the afternoon Bernard Fantus, M.D., of Chicago, will speak on "The Therapy of Colon Stasis," and Richard B. Cattell, M.D., of Lahey Clinic, Boston, on "Diagnosis and Treatment of Cancer of the Colon and Rectum." Dinner in the evening will be followed by an address by Morris Fishbein, M.D., of Chicago, editor of the *Journal of the American Medical Association* on "Plans for Social Security."

THE A. M. A. IS ALERT

The following paragraphs are illustrative of the service which the American Medical Association through its various bureaus is constantly rendering in behalf of the practicing physicians of this country and the people they serve. Within 24 hours of the time this information was received in the office of the secretary of the State Society, a copy of same was placed in the hands of approximately 500 members of The Medical Society of the State of Pennsylvania who are listed in the A. M. A. Directory as OPH or OALR.

MEMORANDUM RELATIVE TO ATTEMPT TO SUBJECT PHYSICIANS PRACTICING OPHTHALMOLOGY TO THE OPTICAL RETAIL TRADE CODE, BY THE OPTICAL RETAIL TRADE CODE AUTHORITY, NATIONAL RECOVERY ADMINISTRATION

Prepared by the Bureau of Legal Medicine and Legislation, American Medical Association, Chicago, March 1, 1935

A letter addressed "To Oculists and Physicians Dispensing Ophthalmic Products" has recently been sent out by the Optical Retail Trade Code Authority, 7 East Forty-fourth Street, New York, N. Y. The letter alleges that "physicians selling glasses or servicing prescriptions" come fully within the scope of the Optical Retail Code. The letter has been accompanied or followed by a demand by the Optical Retail Trade Code Authority that the physician to whom it is addressed fill out a questionnaire relative to the nature and extent of the physician's optical business and pay assessments amounting to \$3 for each employee in his service. The assessment is for the support of the Optical Retail Trade Code Authority, a trade organization.

The Optical Retail Trade Code Authority, by which these demands have been made, is organized under the National Industrial Recovery Act. The National Industrial Recovery Act does not purport in any way to regulate or control the practice of medicine. It specifically relates to "industry" and "trade" and to industrial and trade associations or groups. It relates only to transactions in or affecting interstate or foreign commerce. Under no provision of the act can a physician who confines his work to rendering professional medical services be subjected to any provision of the code or to any assessment under the code.

A person who on his own account commercially buys and sells eyeglasses and spectacles and makes a commercial profit on the transaction is presumably within the purview of the Optical Retail Trade Code, even though he happens to be a physician. It is believed, however, that a physician who buys and sells eyeglasses and spectacles only as the agent of patients for whom he prescribes them and without making any commercial profit on the transaction is not within the terms of that code. The fact that a physician charges for his professional services in prescribing and fitting glasses and spectacles does not alter the situation.

The American Medical Association has protested against the attempt of the Optical Retail Trade Code Authority to bring physicians as such within the scope of the code that it administers. Pending the adjustment of those protests, physicians who are engaged in strictly professional work are advised to refrain from answering the questionnaire that the Optical Retail Trade Code Authority has sent to them and to refrain from paying the attempted assessment for the support of that Code Authority. The outcome of the protest will be promptly reported in the *Journal of the American Medical Association*.

THE FATE OF THE 1935 CHIROPRACTIC BILL

Chiropractic history having repeated itself in the 1935 Pennsylvania Legislature, as it has in many previous legislative sessions, it became necessary for the organized health and education interests of the state to take the lead in the movement to defeat House Bill No. 494. The following letter on the stationery of the Public Health Legislative Conference of Pennsylvania, which represents the state medical societies, the hospital, nursing and pharmaceutical associations, the state dental society, and the various women's auxiliaries to the above-named organizations, was mailed to every member of the House of Representatives:

MARCH 8, 1935.

DEAR SIR:

We are very strongly opposed to House Bill No. 494 creating a Chiropractic Board of Licensure for the following reasons:

First, chiropractors may be licensed at the present time in the Department of Public Instruction, provided they meet the necessary requirements. *Approximately 40 per cent of the 357 drugless healers or physiotherapists who met the qualifications and have been licensed to practice in Pennsylvania are chiropractors.* Others now practice without license.

There is no desire to limit chiropractic or any other form of drugless therapy. We, as always, support high standards of education and training for members of the various healing arts professions in order to assure the people of this commonwealth the very best quality of service for injuries or sickness.

The law-making bodies and the courts of this commonwealth have seen the benefits which have resulted from this policy and during the last 25 years have consistently supported the present high legal standards. Representatives of chiropractors have carried suits testing the legality of Pennsylvania's existing Medical Prac-

tice Act as far as the Supreme Court of the United States and have been informed by that body that they belong under the Bureau of Medical Education and Licensure in the Department of Public Instruction of the State, and should meet the necessary requirements. This has not always been done.

An attempt is being made to have you support the passage of a bill legalizing the practice of all present-day chiropractors irrespective of the quality of training they have received.

At the present time Pennsylvanians have absolute freedom of choice of physicians as well as of licensed chiropractors. There is no limitation of liberty concerning this, but when an interpretation of liberty is sought that may place in jeopardy the health and lives of our citizens by the licensing of practitioners with markedly insufficient training, the guardianship of our legislators is definitely tested.

Second, similar requests for broadening of privileges which were initiated by the chiropractors and other cultists have very recently been defeated by the voters at the polls in popular referenda in several states.

Third, there are no schools or colleges of chiropractic anywhere recognized by the State of Pennsylvania.

Pennsylvania has pioneered in the development and maintenance of laws protecting, by educational requirements, the health of its people from the professional ministrations of poorly qualified candidates for licensure to practice any form of the healing art.

In behalf of Pennsylvania's educational reputation throughout the United States and Canada, and in behalf of the citizens of our state, whose health interests are at present being served by approximately 12,000 physicians, 8000 dentists, 6000 pharmacists, 12,000 nurses, thousands of whom serve in hundreds of Pennsylvania hospitals, and all of whom have qualified according to the laws of this state to practice their chosen profession, we respectfully request that you vote against House Bill No. 494 creating a separate Chiropractic Licensing Board.

Sincerely yours,

C. L. PALMER, *Chairman,*
Public Health Legislative Conference of
Pennsylvania.

On Tuesday, March 19, in the Capitol Building, House Bill No. 494 was the subject of a hearing before the Education Committee of the House. After 2 speakers for and 2 against the bill had been heard and critically interrogated by members of the committee, a sane decision was promptly reached in favor of its rejection. Drs. C. L. Palmer and I. D. Metzger, the latter since 1921 chairman of the State Board of Medical Education and Licensure, appeared against the bill. Dr. Metzger has kindly prepared the following sequence of questions that were raised and discussed during the hearing. We publish them because they reflect the dignity and intelligence of the committee of the House of Representatives whose members asked the questions, and because authoritative answers were given by Dr. Metzger, an experienced representative of the State Department of Education and at present president of the Federation of State Medical

Boards of the United States. There have been similar hearings in former sessions of the legislature that were characterized by uncontrolled heckling and wild applause from scores of frenzied supporters of such bills.

In introducing Dr. Metzger to the Committee on Education of the House, among other remarks, Dr. Palmer said:

We realize that many individuals can create an air of mystery about themselves and with promises of relief or cure of human ailments go forth and in time develop quite a large public following. We are not here to-day to discuss the public following of any particular branch of the healing arts profession. We are here to consider the advisability of maintaining Pennsylvania's present high standards of preliminary and professional training for practitioners of the healing arts profession and to advise strongly compliance with our existing laws on this all-important public question.

QUESTIONS AND ANSWERS

Can chiropractors, naturopaths, and numerous other groups of drugless healers be licensed under present laws?

The Medical Act of 1911 as amended in 1913 provides that the State Board of Medical Education and Licensure shall examine those who pretend to a knowledge of a branch or branches of medicine, and shall establish rules and regulations providing therefor. The board shall determine whether institutions teaching such branches meet the requirements and shall otherwise determine the standards of proficiency of candidates seeking such licensure.

Following this enactment the board divided the drugless healers into 3 classes—chiropodists, physiotherapists, and drugless therapists. Standards were set forth by the board and approved by the Department of Justice. Those engaged in bona fide practice over a reasonable length of time were given an opportunity to present their claims to the right of automatic licensure and those considered eligible were so licensed. Others were required to secure further preparation in order to meet the established requirements.

In the divisions of chiropody and physiotherapy, their schools graciously modified and intensified their courses to meet and in some cases to exceed the minimum requirements. In drugless therapy, a persistent effort was made to defy the standards established by the board. Some of their schools closed while others continued to graduate students with lower grades of training until they were eventually checked by legal procedure. Students were encouraged to pursue these unrecognized courses with the hope that eventually a separate board would be formed and they would be automatically licensed by its initiation. These deluded graduates are still seeking this redemption from their legal plight by such enactment.

Graduates from approved schools in chiropody and physiotherapy have been admitted to the examinations, have consistently passed, and have been licensed. Relatively few of the drugless therapists have attempted to meet the requirements but such as have qualified have

also been licensed. Lack of adequate training alone prevents such licensure.

Present Requirements Reasonable

Are the requirements set up for the practice of drugless therapists unnecessary and therefore unreasonable?

Here they are: A 4-year high school course and one year of college work in biology, chemistry, and physics, which are approved by the Department of Public Instruction, to be secured before the student enters medical study. In the professional course he must have 2 years of basic medical sciences, such as are required of medical students, in anatomy, physiology, biochemistry, bacteriology, pathology, and diagnosis, with no requirements in pharmacology, minor surgery, etc., as are given to medical students during these first 2 years. The third and last year shall be devoted to the training in the particular form of therapy which the candidate desires to practice.

The license issued for *drugless therapy* permits its holder to accept cases, make diagnoses, and render treatments entirely on his own initiative. This subjects the patient to the entire control of the licensee, and his or her welfare is determined by the diagnosis made and the treatment given. It is obvious, therefore, that as thorough training in these basic sciences should be demanded of the drugless therapist as of the regular physician.

Furthermore, the health of the community as well as the welfare of the individual patients depends upon their knowledge and management of acute infectious diseases. The chiropractic bill (House Bill No. 494) has no requirements for the study of bacteriology. Interrogation of its proponent, a dean of a chiropractic school, brought out the fact that they do not think this study is necessary, since they do not believe in its importance in the practice of chiropractic nor in the value of immunization excepting as it may be brought about by increased physical resistance to infection by manipulation of the spine. It was explained by this teacher and proponent that even such serious conditions as chronic appendicitis could be properly treated by mechanical methods, and that their students were so taught; also, that his own children were vaccinated against smallpox only because of health regulations which required it as an essential to admission to public schools.

The chiropractic bill makes no reference to the need of its licensees to conform to or comply with established health regulations. Its *exemption* clause, on the other hand, *nullifies* all requirements which were inconsistent with the act.

The opponents to the bill insist that the regulations in professional requirements set up by the board are the minimum that could safely be accepted for licensure with such legal privileges in practice.

Is chiropractic a specialty in medicine which requires less preparation for practice than that demanded by the board?

It is conceded that it is a specialty in medicine with value in especially selected cases. As a specialty, however, it should be practiced only after a thorough knowledge in all fields of medicine, such as is required of specialists in eye, ear, nose, and throat diseases, in nervous diseases, in pediatrics, in orthopedics, in roentgenology, etc., as recognized in medicine. Being so intimately associated with the nervous and vascular systems, it should not be practiced without a thorough knowledge of medicine in its entirety, since it is such a vital branch.

Leadership Considered Valueless

Can the schools, under the direction of a chiropractic board such as provided for in the bill, be depended upon to assure a thorough training even in the studies set forth in the bill?

Remote and recent inspections of the chiropractic schools have shown that in equipment no provision was made for dissection in gross anatomy, nor microscopes for the minute study of tissues; no laboratory facilities for biochemistry or pathology, nor any other evidence of means for making a recognized scientific investigation of the body or of its diseases. A spinal column, roentgen-ray machine, and charts with adjustment beds comprised the major part of equipment found in any of the schools. It soon became evident that courses of training for the practice of this branch in medicine consisted almost entirely of lecture courses. It was obvious to the inspectors that no semblance of satisfactory training could be secured in any of the institutions in the essential basic sciences of medicine.

Furthermore, the teaching personnel possessed little, if any, special training in the science courses which they conducted. The preliminary credentials of students were not submitted to the State Department of Public Instruction for approval, and students were accepted who had even less than a high school education.

When the leaders in chiropractic thought—deans and teachers—were satisfied with such educational training, what hope could one have of securing better conditions under a self-determining board of standards such as this bill proposed?

Is the licensure established under the term "drugless therapy" adequate for the control of the individual groups encompassed by it?

The contention has been made that practitioners licensed under this term do not limit themselves to chiropractic but practice other forms of drugless therapy; that a chiropractic bill would limit them fully to "the examination of the human spine by observation, palpation, or roentgen ray, and the adjustments of any or all misalignments of vertebrae or adjacent bones or tissues through the use of hands," as shown by the proposed bill. It was acknowledged during the hearing, however, that the schools teach much more than this. It was also acknowledged that it might be difficult to limit the licensees to this particular form of mechanical treatment.

On the other hand, the form of mechanical treatment followed by the practitioner is entirely secondary in importance to the assurance that any form of treatment would be given safely only through an adequate knowledge of the fundamental sciences of medicine.

The general term of "drugless therapy" was a happy choice since it covered all forms of mechanical treatment and included any who might otherwise attempt to evade the law by assuming another title of cult practice.

Would the course of study implied by Bill No. 494 develop a sense of responsibility that would assure safety to patients under their care?

It has been found that much of the 18-months' course is given over to problems of propaganda and commercial propagation of the system of practice. The value of the practice and the importance of its proper establishment in the community are freely emphasized throughout the course of study. Under such influences the humanitarian conception of medical practice loses

its potency so that its pursuit is apt to become a mere trade. With such a concept of the purpose and purport of the profession, slight appreciation of the nobility of the calling can be expected and less evidence of a sense of responsibility in its practice.

Are the regulations set up by the board in 1914 legal and binding upon unqualified practitioners in this line?

The regulations established by the board and based upon Section 6 of the Medical Act have the approval not only of the State Department of Justice but also of county courts, of the State Superior Court, of the State Supreme Court, and indirectly of the Supreme Court of the United States. Very few legislative enactments have been so thoroughly established. Every form of technical endeavor through legal interpretation and trial has been made to invalidate these regulations, but none has been effective in doing so.

The favorite argument that, since the word "chiropractic" does not appear in the Medical Act, there is no provision for the licensure of its adherents has proven futile; their amenability to the law under the term "drugless therapy" has frequently been declared by the courts and cannot be evaded. With these decisions as matters of record, successful prosecutions are readily made when the facts in the cases are adequately presented.

Threatens Tenets of Medical Education

Would it be feasible to establish a separate chiropractic board?

This question illustrates the impracticability of the proposed bill. This is only one of the numerous groups that would seek individual boards. In this connection, attention is called to the naturopathic bill (Senate Bill No. 417) now before the Assembly; also, to half a dozen other forms of drugless therapy, each of which would seek similar recognition. Many illegal practitioners or pretended practitioners have a smattering of knowledge of different forms of drugless treatment and could readily switch to another group if their application for automatic licensure under the chiropractic board were not approved. A state of nihilism in control of drugless therapists would thus be engendered which certainly would be inimical to the welfare of the citizens of the state.

Furthermore, the multiplication of boards would so divide the opinions of groups in respect to essential needs in medical preparation that no standard of excellence could be established or maintained. Those who could not qualify under the more rigid requirements would drop into one or another of the lower classes and the ultimate legal standard would rest with the requirements of the lowest class.

This would mean the abrogation of all the tenets of excellence in medical education, which generations of scientific quest have established.

Numerous other states through basic science laws now require all candidates for licensure in the healing art to pass a nonprofessional board which examines in the preliminary sciences. The candidates may enter this examination only after having had 2 years of college work in the sciences following an approved high school course. In these states very few chiropractors secure licensure because of inability to qualify.

In Pennsylvania not one of the unlicensed chiropractors, to the knowledge of the State Board of Medical Education and Licensure, can qualify before the Department of Public Instruction in the preliminary requirements of 4 years of high school and 1 year of

college science. They, therefore, know it is useless to apply for licensure to practice chiropractic or any other form of drugless therapy.

These and other pertinent points as to why the chiropractic bill should not pass were raised and discussed. The eager interest shown by the Education Committee of the House of Representatives in an effort to seek the truth was most marked and commendable. Their decision to vote adversely on the bill seemed conclusive evidence of an intelligent and sane understanding of its menacing implications.

THE PACKAGE LIBRARY

The response to the invitation from the Library Committee which appeared in the January issue of THE PENNSYLVANIA MEDICAL JOURNAL, inviting members of the State Society to forward to the Library Committee at 230 State Street, Harrisburg, 1 or 2 copies of reprints recently published and believed to be of value, has been encouraging. Outstanding among these contributions was a large collection of duplicate reprints of papers on many subjects from writers all over the country published during the past 4 or 5 years which were forwarded by the librarian of the Guthrie Clinic Library at Sayre, Pa.

The deeper the Library Committee has gone into the subject of developing a Package Library Service, the more we are convinced that in order to build up a good service we must go slowly and not advertise the service as being available until it is underwritten by good and authoritative material. To this end an experienced librarian has been employed and the utmost care will be used in accumulating material.

In the meantime the committee renews the invitation to members to forward reprints worthy of incorporation in the State Society's Package Library.

WALTER F. DONALDSON,
FRANK C. HAMMOND,
CLARENCE R. PHILLIPS, *Chairman,*
Library Committee.

CONTRIBUTIONS TO MEDICAL BENEVOLENCE FUND

The Committee on Medical Benevolence makes grateful acknowledgment of the following contributions to the Fund:

Woman's Auxiliary Philadelphia County Medical Society	\$100.00
Woman's Auxiliary Fayette County Medical Society	25.00

Total contributions since 1934 report .. \$915.00

CHANGES IN MEMBERSHIP OF COUNTY SOCIETIES

The following changes have been reported to March 12:

ALLEGHENY: *New Members*—Frank R. Braden, Jr., 1616 State St., Coraopolis; Maurice H. Moss, 434 Eighth Ave., Munhall; Joseph C. Cicero, 2020 Brownsville Road; William F. McAnally, 545 William Penn Way; John F. Snyder, Municipal Hospital, Pittsburgh. *Removal*—Thomas H. Bruce from Pittsburgh to Claysville (Wash. Co.). *Resignation*—George A. Dragan, Clairton; George C. Johnston, Orlando, Fla.; Simon L. Victor, Orangeburg, N. Y.; John C. Kerr, McKeesport; John A. Zuck, Stanhope, N. J.; Julius A. Katzive, New York City. *Death*—Thomas M. T. McKennan, Pittsburgh (Univ. Pa. '82), Feb. 16, age 75; Arthur E. Roose, East Pittsburgh (Jeff. Med. Coll. '95), Feb. 22, age 66; John R. McCurdy, Dormont (Univ. Pa. '00), Mar. 9, age 61; Carl K. Wagener, Swissvale (Univ. Pgh. '10), Feb. 25, age 51.

ARMSTRONG: *Reinstated Member*—Ralph K. Butler, Rural Valley.

BEAVER: *New Member*—John A. Mitchell, Monaca. *Reinstated Member*—Charles W. Smith, Aliquippa.

BEDFORD: *Removal*—William B. West from Everett to 523 Penn St., Huntingdon (Hunt. Co.). *Death*—Alvin Z. Stoner, Bedford Valley (Univ. Pgh. '12), Feb. 21, age 49.

BERKS: *New Member*—James E. Kahler, Reading Hospital, Reading. *Death*—Ira G. Shoemaker, Reading (Med. Chi. Coll., Phila. '91), Feb. 28, age 66.

BUTLER: *New Member*—James S. Gallagher, Slippery Rock.

CAMBRIA: *New Members*—Jerome H. Cohen, Vintondale; Samuel W. Worrell, Patton. *Removal*—Paul N. Friedline from Johnstown to Dalmatia; Thomas J. Cush from Elizabethtown to U. S. Bank Bldg., Johnstown. *Death*—Arthur A. Basil, Johnstown (Jeff. Med. Coll. '08), Feb. 25, age 55.

CARBON: *New Member*—Kenneth G. Reinheimer, Weissport.

CENTER: *New Member*—Enoch H. Adams, Bellefonte.

CHESTER: *New Members*—Julius Margolies, Coatesville; Stanley J. Miller, Berwyn.

CLARION: *New Member*—Connell H. Miller, Sligo.

CLEARFIELD: *New Member*—James L. C. Sander, 18 N. Second St., Philipsburg. *Transfer*—R. Harwood Fogel, DuBois, from Jefferson County Society; Milton U. McIntyre, DuBois, from Dauphin County Society. *Removal*—John Henry Smith from Eldred to Sykesville.

CUMBERLAND: *Death*—Harry S. Meily, Carlisle (Hahnemann Med. Coll. '98), Feb. 24, age 82.

DAUPHIN: *New Members*—E. Victor Light, Linglestown; Leonard Z. Johnson, Jr., 613 Harris St., Harrisburg. *Death*—Oscar A. Newman, Harrisburg (Univ. Pa. '97), Feb. 23, age 61.

DELAWARE: *New Member*—Ralph H. DeOrsay, Drexel Court Apt., Drexel Hill. *Removal*—Catherine DeE. Edgett from Norwood to 43 N. Church St., Carbondale (Lacka. Co.).

ERIE: *Removal*—Lewis O. Tayntor from Erie to Conneaut Lake.

FAYETTE: *Death*—Thomas B. Semans, Uniontown (Univ. Pa. '20), recently, age 41.

GREENE: *Removal*—N. P. Hart from Butler to Waynesburg.

HUNTINGDON: *Transfer*—Alma Read-Derick, Mount Union, from Clearfield County Society.

INDIANA: *Removal*—E. Lee Reiter from Homer City to Lemasters.

LACKAWANNA: *Removal*—William H. Conway from Blakely to Olyphant; Alex. Shellman from Blakely to Olyphant.

LUZERNE: *New Members*—Joseph M. Bruno, 49 S. Main St., Pittston; Joseph E. Martin, 272 N. Maple St., Myles T. Kavanaugh, 327 Wyoming Ave., Kingston; James Ross Nealon, 76 Church St., Plymouth. *Transfer*—Anna L. Levy, Wilkes-Barre, from Lackawanna County Society. *Removal*—William Christian from Luzerne to 1711 N. Main Ave., Scranton; Thos. A. Duffy, from Plymouth, to 54 Perkins St., Wilkes-Barre. *Death*—Joseph C. Kochcynski, Hazleton (Med. Chi. Coll., Phila. '13), Dec. 1, age 50.

McKEAN: *New Members*—Matthew A. McGrail, CCC 1, Quaker Bridge, N. Y.; Christopher J. Mogan, 10 Florence St., Bradford.

MERCER: *Death*—John H. Martin, Greenville (Chicago Homeo. Med. Coll. '85), Mar. 2, age 79.

MIFFLIN: *New Member*—Alfred E. James, Beaver Springs.

MONTGOMERY: *New Members*—Hugh Robertson, Radnor; Caesar F. Sarni, Norristown.

NORTHAMPTON: *New Members*—Charlotte Backus-Jordan, 318 Spring Garden St.; Jesse Kieffer, 246 Bushkill St.; Stephen E. Murray, 130 N. Third St.; Leigh B. Shiffer, 645 Ferry St., Easton; John A. Frauenfelder, 141 S. Broad St., Nazareth; James B. Butchart, 52 E. Broad St., William Silverman, 11 E. Fourth St., Bethlehem. *Reinstated Member*—Frederick J. Pearson, 1218 Broadway, Bethlehem. *Death*—Milton E. Weaver, Perkasie (Coll. Phys. & Surg., Balt. '04), recently, age 54.

NORTHUMBERLAND: *New Members*—Samuel L. Savidge, State Hospital, Shamokin; Joseph T. Wasilewski, 817 Chestnut St., Kulpmont.

PHILADELPHIA: *New Members*—Milton Harrison, 1609 Spruce St., Morton J. Oppenheimer, Temple Univ. Med. Sch., Broad & Ontario Sts., Paul Sloane, 4816 N. 13th St., John L. Green, 3509 Ryan Ave., Henry O. Sloane, 1717 Pine St., Sol Perchonock, 1606 N. 52d St., Philadelphia; Craig W. Muckle, Haverford. *Reinstated Member*—Louis Herman, 5606 Florence Ave., Philadelphia. *Death*—Kate W. Baldwin, Philadelphia (Woman's Med. Coll., Phila. '90), Jan. 18.

POTTER: *New Member*—Bernard S. Bretherick, Roulette.

VENANGO: *New Member*—William E. Ford, Emlenton. *Reinstated Member*—Forrest J. Bovard, Tionesta.

WESTMORELAND: *New Members*—DeLos H. Parke, 865 Fifth Ave., New Kensington; Elmer P. Sauer, 16 S. Broadway, Scottdale. *Death*—George Bowman, Irwin (Univ. Mich. '01), Jan. 25, age 61.

YORK: *Death*—John E. DeHoff, York (Atlantic Med. Coll. '97), Feb. 16, age 62.

PAYMENT OF PER-CAPITA ASSESSMENT

The following payment of per-capita assessment has been received since Feb. 16. Figures in first column indicate county society numbers; second column, State Society numbers:

Feb. 18	Venango	26-34	3408-3416	\$67.50
19	Erie	65-73	3417-3425	67.50
	Clearfield	21-32	3426-3437	90.00
20	Warren	24-45	3438-3459	165.00
	Blair	3-45	3460-3502	322.50

Feb. 20	Monroe	16	3503	\$7.50
21	Franklin	43-50	3504-3511	60.00
	Bedford	9-10	3512-3513	15.00
23	Dauphin	131-144	3514-3527	105.00
	Beaver	31-52	3528-3549	165.00
	York	97-101	3550-3554	37.50
	Lancaster	116-124	3555-3563	67.50
	Monroe	17	3564	7.50
	Fayette	50-69	3565-3584	150.00
	Potter	10-11	3585-3586	15.00
	Butler	1-35	3587-3621	262.50
	Delaware	93-105	3622-3634	97.50
25	Mercer	17-33	3635-3651	127.50
	Carbon	19-24	3652-3657	45.00
26	Clearfield	33-42	3658-3667	75.00
	Huntingdon	13-20	3668-3675	60.00
	Berks	108-117	3676-3685	75.00
	Luzerne	71-102	3686-3717	240.00
27	Cumberland	24-27	3718-3721	30.00
	Mercer	34-37	3722-3725	30.00
	Greene	20	3726	7.50
28	Adams	11-12	3727-3728	15.00
	Westmoreland	35-64	3729-3758	225.00
	Monroe	18	3759	7.50
Mar. 1	Allegheny	549-780	3760-3991	1740.00
	Philadelphia	904-1130	3992-4218	1702.50
2	Cambria	6-95	4219-4308	675.00
	Northumberland	52-59	4309-4316	60.00
	Wayne-Pike	9-13	4317-4321	37.50
	Somerset	27-29	4322-4324	22.50
4	Lackawanna	103-140	4325-4362	285.00
	Adams	13	4363	7.50
	Bedford	11-15	4364-4368	37.50
	Tioga	1-14	4369-4382	105.00
	Chester	53-70	4383-4400	135.00
5	York	102-107	4401-4406	45.00
	Center	1-22	4407-4428	165.00
	McKean	27-29, 31-35	4429-4436	60.00
6	Venango	35-39	4437-4441	37.50
	Greene	21	4442	7.50
	Erie	74-78	4443-4447	37.50
	Clarion	21-22	4448-4449	15.00
	Clinton	1-22	4450-4471	165.00
	Armstrong	22-33	4472-4483	90.00
	Washington	62-69	4484-4491	60.00
7	Adams	14	4492	7.50
	Northumberland	60-66	4493-4499	52.50
	Monroe	19	4500	7.50
	Carbon	25-26	4501-4502	15.00
8	Dauphin	145-162	4503-4520	135.00
	Adams	15-16	4521-4522	15.00
	Montgomery	133-152	4523-4542	150.00
	Blair	46-64 (ex. 56)	4543-4560	135.00
9	Greene	22	4561	7.50
	Fayette	70-87	4562-4579	135.00
11	Delaware	106-110	4580-4584	37.50
	Cumberland	28-30	4585-4587	22.50
	Armstrong	34-36	4588-4590	22.50
12	Berks	118-131	4591-4604	105.00
	Mifflin	20-24	4605-4609	37.50
	Erie	79-99	4610-4630	157.50
	Columbia	26-30	4631-4635	37.50
	Mercer	38-40	4636-4638	22.50
	Luzerne	103-215	4639-4751	847.50
	Chester	71-78	4752-4759	60.00
13	Northampton	1-66	4760-4825	495.00
	Northampton*	145-146	8055-8056	15.00
	McKean	36-39	4826-4829	30.00
	Lycoming	78-90	4830-4842	97.50
14	Philadelphia	1131-1373	4843-5085	1822.50
	Carbon	27-31	5086-5090	37.50
	Greene	23	5091	7.50
	Indiana	16-26	5092-5102	82.50

COMMITTEE ON SCIENTIFIC WORK

STANLEY P. REIMANN, M.D., *Chairman*,
Philadelphia.

PROGRAM OF THE SECTION ON MEDICINE

The program this year will be varied and interesting. On one afternoon there will be a symposium on "Cardiology," and at this session an eminent cardiologist will be the guest speaker. There will also be papers on allied subjects: "The Importance of Venesection and Venous Pressure to the General Practitioner," by Dr. Harold F. Robertson, and "The Diuretic Action of Sodium Dehydrocholate When Injected Intravenously," by Dr. Franklin A. Weigand.

On the second afternoon the Section on Surgery will join with the Section on Medicine for a joint session on "The Surgical and Medical Treatment of Gallbladder Diseases and Tuberculosis." The second guest, an authority on tuberculosis, will speak. We hope that the papers will help to clarify the ideas of the general practitioner as to the proper treatment of gallbladder diseases. The medical and surgical procedures employed in the treatment of tuberculosis should be of timely interest.

On the third afternoon we have planned papers on "Diabetes," by Dr. Herbert T. Kelly, on "Thoracic Empyema Cured by Aspiration Only," by Dr. Bernard McCloskey, and on "Bacterial Toxemia: Symptomatology with Simulation of Various Systemic Diseases," by Dr. Myer Solis-Cohen.

COMMITTEE ON HOTELS

CLARENCE R. PHILLIPS, M.D., *Chairman*,
Harrisburg

FIRST CALL!

"First call to Dining Car."

From September 30 to October 3, 1935, you will be coming to Harrisburg to attend the Eighty-fifth Annual Meeting of The Medical Society of the State of Pennsylvania.

You will need a place to eat and sleep. There will be ample hotel accommodations, but those who reserve early will get the cream of the reservations; hence, make your reservations *now*.

The leading hotels, all within 2 squares of the hotel headquarters in the Penn-Harris, are listed below with the number of rooms and rates for single accommodations.

<i>Hotel</i>	<i>Location</i>	<i>No. rooms</i>	<i>Rates</i>
Penn-Harris	Third at Walnut	400	\$2.50-\$4.00
Harrisburger	Third at Locust	300	2.50- 4.00
William Penn	327 Market Street	160	1.50- 3.00

* 1934 dues.

Hotel	Location	No. rooms	Rates
Plaza	423 Market Street	125	\$1.50-\$3.00
Bolton	Market Square	100	1.50- 3.50
Columbus	Third at Walnut	90	1.50- 3.00
Senate	Market at Second	60	1.75- 3.00
Russ	Market at Fourth	47	1.50- 2.50

EMERGENCY MEDICAL RELIEF IN PENNSYLVANIA

HAROLD A. MILLER, M.D., *Director*
Harrisburg

March 1, 1935

To: *Executive Directors, and Chairmen of Medical, Dental, Pharmaceutical, Osteopathic, and Nurses' Advisory Committees.*

I wish to call your attention to the following paragraph in the Rules and Regulations:

"Physicians, nurses, and dentists, providing authorized medical care to unemployment relief cases in their homes shall submit *promptly* to the County Emergency Relief Administration a bill in duplicate for all completed cases and for incomplete maximum amount cases."

A strict application of this regulation will be made April 1 and thereafter. Physicians, dentists, pharmacists, osteopaths, and nurses must submit their bills within the month which follows the last compensable visit as outlined in the Rules and Regulations for acute conditions, chronic conditions, and obstetric care.

Bills not so submitted are void.

You will please advise all participating physicians, dentists, pharmacists, osteopaths, and nurses in your county of this ruling.

County Society Reports

ALLEGHENY

Jan. 15, 1935

"Gonorrheal Arthritis," was the subject of the paper by Robert C. Hibbs. He stated that this is an important metastatic complication, and occurs in from 1 to 3 per cent of all gonococcic infections. It is more common in males and may occur at any age. The most frequently involved joints are the knee, ankle, elbow, wrist, shoulder, and the metatarsophalangeal, but any may be affected. It may be polyarticular; in the female it is usually mono-articular. The most common time of appearance in the male is during the second or third week after the posterior urethra is involved. The pathologic lesion is usually a synovitis with excessive plastic exudation and osteo-arthritis results from the involvement of the articular ends of the bones: from this point the periosteum and cartilages of the joint become implicated, and extension into the synovial sac causes secondary hydrarthrosis.

Lee classifies gonorrheal arthritis into 2 large groups: (1) Acute infections, which are subdivided into 3 types, (a) diffuse arthralgia, with slight reddening and hyperemia of the overlying skin; (b) acute arthritis, frequently mono-articular, with severe pain, swelling, tenderness, reddening of the skin and hyperemia, and possibly suppuration; (c) acute polyarthritis of the smaller joints of the hand or foot, with fusiform swelling. There is extreme pain on movement, swelling and redness are not marked, and suppuration is rare. (2)

The subacute or chronic infections, which consist of 2 types, (a) hydrops articuli, most often of a single joint, and this the knee. There is a tense swelling, some limitation of motion, and pain is not marked; (b) osteo-arthritis, usually of the smaller joints. There is formation of adhesions with subsequent deformity and limitation of movement.

Diagnosis should not be difficult in acute arthritis. The genito-urinary tract should be thoroughly examined, and if gonococci are not found in slides cultures must be made of the urine, secretions, and discharges. It has followed ophthalmia neonatorum and vulvovaginitis in children. The complement-fixation test is nearly always positive. In the knee joint only is the roentgen ray distinctive.

In differentiating, a mono-articular large-joint involvement is usually gonorrheal. The temperature rise is less than in acute rheumatic fever, and the pain is not relieved by salicylates. The joint pains of syphilis are relieved promptly by antisyphilitic drugs, and the Wassermann test is positive. Muscle wasting is more prominent than in tuberculosis. When papulovesicular or papular dermatoses occur in conjunction with joint affections, the arthritis is usually gonorrheal.

The prognosis must be guarded, particularly in the chronic types. Most of the acute cases will subside with the abatement of the urethritis. Small-joint involvements are usually shorter in duration and leave less lasting damage. If once affected by arthritis, the individual is prone to have subsequent attacks in later infections by gonococci. Early and efficient treatment will limit the infection and prevent joint involvement.

The treatment is divided into 3 parts—focal, local, and systemic. By focal treatment is meant the treatment of the urethritis. In anterior urethritis this is done by gentle daily irrigations of neutral acriflavine or potassium permanganate, followed by hand injections of a mild silver salt. Involvement of the posterior urethra, prostate, etc., requires through and through irrigations with deep instillation of mild silver salts afterward. The prostate or the seminal vesicles should not be massaged at this time.

In the chronic types Littre's glands should be treated by the endoscope. Prostatic massage twice weekly with irrigations of deep instillations of an antiseptic are indicated in prostatic or seminal vesicle involvement.

In the female, the urethra should be treated by the instillation of silver salts. Injection into Skene's glands may be made with a blunt needle to eradicate the infection. Bartholin's glands, if abscessed, must be drained. Endocervicitis is best treated by silver salts and diathermy. Expectant treatment is indicated in cases of acute salpingitis.

In acute cases local treatment of the joints includes keeping the patient in bed and relieving the pain. The leg must be immobilized, but not long enough to cause adhesions. Passive and active movements of the joint must be instituted as soon as safe. Bier's hyperemia aids in the relief of pain. Evaporating lead lotions, 10 to 20 per cent of ichthylol in glycerine, have been used. Salicylic acid in unguentum capsici (40 grains to the ounce) aids in setting up counterirritation. Hot epsom salts stupes continuously applied are best. The electric heating pad affords comfort and the infra-red rays give the quickest relief. Diathermy is more useful in the chronic types. Baking and massage help in restoring normal function. Artificial fever induction in the polyarticular type is often of help. If tapping of the joint is necessary, the leg should be extended, a

lumbar puncture needle inserted between the external condyle of the femur and the external tuberosity of the tibia, and the fluid allowed to escape slowly. A rubber bandage should be applied from below upward and the patient kept at rest.

Systemic treatment includes the use of sedatives for pain. Protein injections intravenously and autohemotherapy have been used. The former, when long continued, reduces the resistance of the patient and does more harm than good. Gonococcic filtrate and the bacterial antigen of Kreuger may be of value. Other substances used by injection include milk, aolan, glucose, activin, sodium iodide, calcium gluconate, and colloidal sulphur.

The points of importance in the treatment of gonorrheal arthritis are: Early diagnosis and treatment of the urogenital and joint involvements; avoidance of trauma to the focus of infection; rest of the affected parts, with care not to immobilize too long; and systemic medication as individually indicated. Prognosis is best in those cases having had thorough and efficient treatment of the gonococcic infection.

In the discussion W. C. Bryant, stated that the incidence of gonorrheal arthritis, by a report of the Surgeon General of the U. S. Army, was 3 per cent in 260,000 cases of gonorrhea. The subacute and chronic cases are sometimes difficult to diagnose. Pus cells in the prostatic secretions have been too much emphasized. Lee states that a subacute joint condition which is persistent and shows periarticular changes necessitates the exclusion of gonococcic infection. The complement-fixation test is of doubtful value; a patient may have a nongonococcic arthritis with a positive complement-fixation test; a negative complement-fixation test does not exclude gonorrheal arthritis. Mayer S. DeRoy said that the local treatment of gonorrheal arthritis is concerned mainly with the relief of pain, prevention of deformity, and prevention of destruction of the involved joint. The treatment of the focus of infection is all-important. The suppurative types are probably hematogenous; the nonsuppurative are probably due to toxic reaction. Splinting by plaster casts or molded metal splints prevents deformity. Motion is begun when it becomes painless, even a small amount of motion being sufficient to preserve joint function. Arthrotomy is used in those joints which are hot, distended, and painful, which show the organism in aspirated specimens, or if the aspirated material is thick. Arthrotomy is done with the part prepared with the utmost caution. Drainage tubes must not be inserted into the joint itself. Movement is begun as soon as possible.

Paul Titus presented "Sterility; an Analysis of Causes and Treatment." He considers that it is well to have the various terms of the condition defined definitely. Sterility may be defined as the inability of a couple to effect or accomplish a pregnancy; this definition shares the responsibility between the husband and wife. A mating cannot be considered sterile until after a year of unsuccessful attempts at pregnancy. The term primary sterility is applied when no pregnancy has resulted; secondary sterility to those cases in which, after 1 or 2 pregnancies have resulted, further conception apparently becomes impossible. Absolute sterility applies when anatomic or genetic faults, or pathologic changes, make pregnancy impossible at least for the time being. In relative sterility, pregnancy is not impossible, but is impeded or interfered with by various factors.

The following are the essential details of the routine investigation of a case of relative sterility and the treatment. The faults are invariably several; only rarely is a single fault found. Unless both husband and wife understand completely, and agree to undergo the necessary study, it is best for them not to begin.

The essential steps are: History and general physical examination of the wife, including blood count, urinalysis, pelvic examination; history and general physical examination of the husband, including blood count, urinalysis, and examination of the genital organs; basal metabolic rate of both partners; postcoital examination of the spermatic fluid from the cervical canal (Huhner test); the Rubin test of tubal patency by insufflation; and other measures which may be necessary, such as injection of the uterus and tubes with opaque media for roentgen-ray visualization, the Frank estimation of female hormone and prolan-A excretion in the urine, and the galactose tolerance test as an indication of pituitary function. The complicated, extensive, and expensive examination and investigation as advocated by Meaker is not essential in all cases. Although this obtains the best individual results it is impossible for the average couple. A minimum standard of investigation should be required of all.

Discovery of the causes: The history and general and special examinations may each disclose many factors, which make an imposing total of causes of sterility in a couple. The history may reveal protein starvation or previous debilitating or damaging diseases, such as mumps with orchitis, scarlet fever, recurrent tonsillitis, anemia, nephritis, or gonorrhea. Important may be the too free use of alcohol, sexual excesses, the use of cold lubricating jellies with coitus, and coitus interruptus, with following passive congestion of the tubes. Mild lead poisoning in one husband, a painter, was the cause of inactive spermatozoa. Epispadias, hypospadias, and undescended testicles are important factors, of which at least 2 are correctable. The number, motility, and morphology of the spermatozoa are of importance.

The total cases reported by Titus are 113. Of these, 25 were absolute (22.1 per cent) and 88 relative (77.8 per cent). Of these 88 cases of relative sterility, there were 36 pregnancies, or 40.9 per cent. Sixty-six cases were completely studied and, of these, 31 (46.9 per cent) had pregnancies; 22 cases were incompletely studied, and in these there were 5 pregnancies, or 22.7 per cent. The value of complete study is amply illustrated here. The duration of the sterility was: 1 year, 11 cases; 2 years, 5; 3 years, 6; 4 years, 1; 5 years, 1; 6 years, 2; 9 years, 2; 14 years, 2; unknown, 2. There were 22 cases of primary sterility (nulliparas); 8 of secondary sterility (multiparas); parity not recorded in one case. Tubal insufflation was responsible for pregnancy in 4 cases. The faulty factors found in cases of relative sterility include: Relative total obstruction, 35; endocervicitis, 28; retroflexion of the uterus, 24; hypothyroidism, 13; ovarian dysfunction, 10; 5 each of anemia, ovarian cyst, and fibromata; cervical atresia following previous deep cauterization, 5; chronic adnexitis, 4; pituitary dysfunction, 3; cervical polypi, infantile uterus, 2 each; cervical stenosis, excessive use of alcohol, protein starvation, tuberculosis, and diabetes, 1 each.

The male factors were: Hypothyroidism, 18; inactive spermatozoa with faulty spermatogenesis, 7; sluggish spermatozoa, 7; abnormal forms of spermatozoa, 2; anemias, 3; excessive use of alcohol, 1.

Some points of interest in the causation and treatment

of relative sterility are seen in the following 6 cases: (1) one child, then sterile for 9 years. The cause was endocervicitis, treated by cautery, followed by tubal insufflation. Three pregnancies in rapid succession occurred, and a request for contraceptive advice; (2) multipara, sterile $2\frac{1}{2}$ years, lowered basal metabolic rate, and prolonged menstrual intervals. Roentgen-ray treatment was given to the pituitary, thyroid, and ovarian regions; this was followed by 2 normally spaced periods, and pregnancy; (3) had 6 insufflations (by another physician); apparently had at least 2 insufflations after becoming pregnant without disturbing the embryo; (4) recovery from gonococcic salpingitis; moderate tubal obstruction overcome by tubal insufflation, and followed by a tubal pregnancy; (5) nullipara, married one year, had endocervicitis and cervical stenosis. Both husband and wife had markedly lowered basal metabolic rates. After appropriate treatment pregnancy followed after 2 months; (6) nullipara, cystic enlargement of left ovary, menses every 7 or 8 weeks, moderate tubal obstruction. Insufflation done on or about the ovulation time, and she became pregnant at once.

The vast majority of cases of absolute sterility resulting from tubal occlusion are now correctable by plastic surgical treatment; clubbed tubes are restored by operation; tubes occluded at the cornual end can be resected and then implanted in the uterus. Where the tubes must be or have been removed, implantation of the ovary in or on an orifice in the uterine wall by the modified technic of Estes, has resulted in pregnancy in a fair number of cases.

Absolute sterility in the male, as from obstruction of the epididymis following gonococcic orchitis, can be corrected fairly readily by plastic operation.

In conclusion Titus states: Relative sterility can be overcome in 1 out of every 2 cases; a multiplicity of faulty factors is the rule, and both wife and husband must be studied; mechanical faults predominate, and obscure or mysterious endocrine disturbances are of less frequency and importance than formerly thought; absolute sterility due to salpingitis or perisalpingitis is correctable in many instances by appropriate plastic operations; absolute sterility in the male, as from gonorrheal stricture of the urethra, or occlusion of the epididymis, is usually correctable by plastic operation; sterility being so much more amenable to treatment than is generally supposed, every sterile couple deserves an investigation if they desire to have children.

In discussion Benjamin R. Almquist said that Erdley Holland estimates the male infertility to be responsible for one-third of the cases, with others estimating higher or lower figures. Meaker says, "In the male, requisites for normal fertility are: (1) The testicles must produce normal spermatozoa; (2) the male genital tract must allow free passage of spermatozoa from the testicle to the urethral meatus; (3) the prostatic vesicular secretions must be favorable to the spermatozoa; (4) ejaculated spermatozoa must be safely delivered into and received by the cervix." Undescended testicles must be brought into the scrotum before puberty. Antuitrin-S alone will accomplish this in a high percentage of cases. Occlusions of the epididymis may be overcome by anastomosis between the vas and the globus major. Hypospadias and epispadias may be corrected in many cases; a condom with a hole in the end may convey the spermatozoa properly, or artificial insemination may be used. A normal ejaculate, after 6 to 10 days of abstinence, should be about 3 to 6 c.c. in volume, with

100 million or more spermatozoa per cubic centimeter, 90 per cent being actively motile, and retaining activity for 8 or more hours at room temperature. Semen is relatively deficient if the spermatozoa count is below 60 million per c.c., or with 25 per cent abnormal forms, or with only 70 per cent or less of active sperms. These cases are entitled to complete study.

R. Charles Nucci read a paper entitled, "The Early Diagnosis and Preventive Treatment of Cancer of the Cervix," and said that the 5-year salvage of these cases varies from 13 to 25 per cent, an average of approximately 20 per cent. The figures are appalling because only 8 to 15 per cent of the cases are seen during the stage called incipient, when there is great promise of doing something for them. In 68 cases at Magee Hospital, only 9, or 13 per cent, were seen during the early stage of the disease. The chances of cure are directly proportionate to the timeliness of the diagnosis. In 68 cases the average time from the appearance of symptoms to the interview with a physician was 10 months; the earliest, 5 days, and the longest, 4 years. Physicians hesitate or fail to make vaginal examinations. There is often an absence of symptoms during the incipient stage, and there is a tendency to treat precancerous lesions, as cervicitis, palliatively. The public has not been properly apprised of the curability of cancer of the cervix in the incipient stage. There should be adequate care of the postpartum cervix. That chronic irritation is a potent factor in cancer of the cervix is seen by the fact that 90 to 97 per cent of the cases give a history of an antecedent pregnancy. In 68 cases, 91 per cent had one or more pregnancies; 5 cases, or 7 per cent, occurred in the third decade. Every cervical erosion, ulcer, papilloma, or nodule must be suspected.

Diagnosis can be made only on microscopic examination. The oftener these are resorted to in order to make a diagnosis, the greater the detection of early carcinoma and the larger the number of cures. The iodine test is not applicable to suspicious ulceration or erosion.

Preventive and prophylactic measures include periodic cervical inspection in those who have had children: restoration of normal cervical epithelium 8 to 10 weeks postpartum; and adequate treatment of chronic cervicitis. Cauterization or amputation of the cervix is efficacious. In over 6000 cases of cauterization of the cervix at Magee and St. Francis Hospitals over a period of 15 years, Huggins and Cashman saw only one instance of carcinoma, and in this one they believe that the cervix had been inadequately cauterized.

In discussion Mortimer Cohen said that of 45 frozen sections from the cervix 14, or 31 $\frac{1}{2}$ per cent, were found to be malignant. One of these was diagnosed nonmalignant on frozen section, but on permanent section of another small bit of tissue, a small area of malignancy was found. This indicates that multiple sites should be selected for section. The surgeon was no more sure of his diagnosis in the 31 per cent of malignant cervixes than he was in the 69 per cent of the nonmalignant ones.

GEORGE R. HARRIS, *Reporter.*

BRADFORD

Jan. 22, 1935

The meeting was held at the Ward House, Towanda. Stanley D. Conklin gave a review of the year's activities. We were reminded of the excellent attendance

at the Postgraduate Seminars which were held during June and July at the Robert Packer Hospital, Sayre. In December Dr. Conklin, on behalf of the members of the Bradford County Medical Society, unveiled the portrait of Dr. Cyrus L. Stevens which hangs in the new State Medical Society Building at Harrisburg. The portrait was a donation of the Medical Society of this county.

On Dec. 7, the society meeting was held in conjunction with the opening of the new hospital building of the Robert Packer Hospital, Sayre. The following officers were elected for the ensuing year: President, George E. Richardson, Towanda; first vice-president, Carl M. Bradford, Canton; second vice-president, J. Clifton Lynch, Athens; secretary, Stanley D. Conklin, Sayre; reporter, Wilfred D. Langley, Sayre; treasurer, C. Melvin Coon, Athens; and censor for 3 years, John D. McCallum, Canton.

Rufus S. Reeves of Philadelphia read a paper on "More Recent Ideas of Nutrition." The discussion of this topic was approached from the standpoint of fuel, mineral, protein, fat, carbohydrate and vitamin requirements, water balance, and enzymes. The necessity for individualization of patients and a plea for the general practitioner to acquaint himself more thoroughly with the science of nutrition was stressed. A study of the patient's diet from the standpoint of diagnosis and appropriate therapeutics was offered as a method whereby vague symptoms and definite diseases could be frequently discovered.

The rationale of proper balance of the different constituents and how near milk comes to being the perfect food were given.

It was shown that since the study of the science of nutrition has gained its proper place and its importance has been recognized, such diseases as tuberculosis, nephritis, typhoid fever, diabetes, and the vitamin deficiency diseases are much better treated.

WILFRED D. LANGLEY, *Reporter.*

CHESTER

Feb. 19, 1935

The meeting was held at the Homeopathic Hospital.

A questionnaire regarding preventive medicine and sanitation from Dr. Edith MacBride-Dexter, State Secretary of Health, was presented. Various questions pertaining to public health matters in the county were discussed and answers to these questions were decided upon by the society. The completed questionnaire is to be returned to Dr. Dexter. A letter from the State Society concerning the Social Security Bill for Health Insurance was referred to the Economics Committee with immediate power to act relative to a plan for placing before the taxpayers of the county definite information on the very important subject of health insurance.

The Executive Committee recommended that Robert T. Devereux's report of the Public Health Committee's work during the past year be printed in the next issue of the *Reporter* and that a copy of this issue be sent to every physician in the county. It was further recommended that reports of the meetings of the society be uniform for all county newspapers and that these reports be prepared by the secretary. The committee approved the recommendation that advertisements be inserted in the county newspapers to further the distribution of the pamphlet, *Good Food at Low Cost*.

The committee reported that the Public Health Doctor Committee had not reached any conclusion concerning the man to be recommended for the appointment of Public Health Doctor. It was announced that \$1000 had been secured from the County Commissioners to be used for the expenses of the Health Doctor.

The Program Committee announced that the March meeting would be held in conjunction with the Chester County Health and Welfare Council in Coatesville on March 19. It was approved that Arthur C. Christie of Washington, D. C., be invited to address this joint meeting.

Edwin O. Geckeler, assistant professor of orthopedics at Hahnemann Medical College, Philadelphia, delivered an address on the "Ambulatory Treatment of Fractures of the Leg." Dr. Geckeler spoke chiefly of the treatment of fractures of the ankle joint by means of a nonpadded walking cast. Fractures of the ankle treated in this manner have an average stay in the hospital of only 2 days as compared to 6 days with the use of an ordinary plaster cast. The walking cast is worn on an average of 47 days, and follow-up treatment such as physical therapy is not usually required. The nonpadded walking cast eliminates edema, muscular weakness and stiffness, and its purpose is fixation and early function. It requires a light plaster of Paris cast and a metal stirrup to protect the heel. This cast can be used on any person of any age and any weight. The speaker reviewed the general technic of applying the cast and particularly urged the use of cold water, so that the plaster will not harden too quickly. He also urged that the plaster bandages be rolled around the extremity rather than pulled. The patient is allowed to stand on the leg and attempt to walk, often within 5 minutes after the cast is applied. A motion picture was shown illustrating the nonpadded walking cast and the excellent results obtained.

JOSEPH SCATTERGOOD, JR., *Reporter.*

DELAWARE (EASTERN BRANCH)

Feb. 26, 1935

The meeting was held at the Llanerch Fire Company building.

Mary Buchanan, professor of ophthalmology, Woman's Medical College of Pennsylvania, spoke on "Ocular Conditions Associated with Systemic Diseases." Slides were shown of eye conditions and discussed as they related to general medicine in particular.

Phlyctenular Conjunctivitis: Frequently seen in children. Produces lacrimation and photophobia, with the appearance of small spots or phlyctenules on the cornea. The incidence of this disease has been greatly reduced because of medical school inspection of pupils and removal of diseased tonsils and adenoids. It is frequently associated with tuberculosis and congenital syphilis. Results are good if treated with either tuberculin or salvarsan, depending on the cause.

Iritis: Commonly caused by syphilis. Two types discussed: (1) Syphilitic, in which a gumma forms on the iris and gives rise to adhesions between the iris and the lens; (2) serous, due chiefly to gonococci or other germs. Focal infection is a common cause.

Glaucoma: The importance of a differential diagnosis between glaucoma and iritis was stressed. The treatment of iritis and glaucoma differs and is of importance in preserving the sight. Diagnostic signs of glaucoma are: Pupil dilated, oval and immobile;

cornea steamy and insensitive; anterior chamber shallow, and tension increased. In iritis the pupil is small, gray, and sluggish; the cornea is transparent and sensitive; the anterior chamber of normal depth and tension normal. Rubbing cotton over the cornea produces extreme pain in iritis, but no pain in glaucoma.

There are 2 types of glaucoma—simple and inflammatory. Simple glaucoma is insidious in onset and usually painless, whereas the inflammatory type is accompanied by great pain and blindness may ensue in a few days. Operative procedures for glaucoma are iridectomy and corneal-scleral trephining. In the acute type of glaucoma iridectomy is satisfactory, but in chronic cases with adhesions between the iris and lens, the trephining operation is more suitable.

Retinal Diseases: Hemorrhage into the retina is a serious condition and a hopeless prognosis should be given. Embolism of the central artery of the retina results in blindness, as the embolus affects the ganglion cells of the retina. Nephritis causes hemorrhage in the nerve fibers of the optic nerve. Diabetes causes small hemorrhages in the retina, which on being absorbed leave little yellow spots on the retina, and small white spots about the macula. In cases of long standing a cloudy effect is seen about the macula. Albuminuric retinitis gives rise to a star-shaped figure on the retina, caused by fibers radiating towards the macula. The deposits occur between these fibers, thus giving rise to the star-shaped figure. In severe nephritis the so-called cotton fundus is seen, and is produced by a deposit about the optic nerve.

Detached Retina: This condition formerly was considered hopeless, but more modern operative procedures have lent encouragement for better results. In recent cases electrocoagulation has been done.

In the discussion H. Winfield Boehringer said that phlyctenular conjunctivitis occurs among the poorly nourished children and has been decreasing in incidence during the past few years. Almost 100 per cent recovery after the use of tuberculin, and those cases caused by syphilis recover by the use of salvarsan. Keratitis may be caused by tuberculosis but is almost always caused by syphilis. Opacity begins in the center and spreads to deep portions of the cornea. There is hardly ever any suppuration and the other eye is almost always involved. Specific treatment is indicated and results are good. He stressed the differential diagnosis between iritis and glaucoma. All cases of acute glaucoma are the result of a chronic inflammatory condition. Use atropine in iritis and eserine in glaucoma. Dilate pupil before patient leaves the office. In glaucoma do not depend alone on the fingers for determining tension; use tonometer. In extremely bad cases of albuminuric retinitis, the prognosis for life is about 2 years. Disease of the ethmoids and sphenoid sinuses is responsible for central scotoma. Attention to the sinuses is of importance.

Edward Bedrossian urged careful examination of the eyegrounds in discovering brain tumors. Many stomach disorders are caused by defective vision.

After the meeting the Woman's Auxiliary entertained the members with music and luncheon.

THEODORE F. LIDLE, *Reporter*.

DELAWARE

Mar. 14, 1935

The meeting was held at the Chester Hospital, 9 p. m., President John Eynon presiding. The scientific program consisted of a symposium on allergy.

Louis Tuft, associate in immunology, at the Temple University School of Medicine and chief of the Allergy Department of Temple University Hospital, gave an address on "Principles of Allergy and their Clinical Applications."

He defined the various terms which appear in the literature in discussions of allergy, and emphasized the all-embracing phase of hypersensitiveness, pointing out that it includes anaphylaxis, contact dermatitis, etc. The various antibodies and types of antibodies concerned in allergic conditions were discussed; also the general subject of the influence of heredity. Particular attention was called to the multiple shock organs present in the same individual at various times. Before any allergic reaction occurs the following factors must be present: Shock tissues; antibodies specific for the particular excitant; sensitizing agents, or as they are termed, allergens; and sufficient contact between the latter and the patient.

In conclusion he urged that each patient be studied thoroughly and treated before multiple shock organs be involved, and made a plea for the adoption of a prophylactic attitude in the field of allergy.

Leroy Wenger, of the Mulford Biological Laboratories, presented the subject of skin testing in allergic conditions. He detailed the various methods: The scratch method, the intradermal method, and the hypodermic method, showing the values of each type of testing. It is his opinion that the scratch method of testing is not only the best, but the safest to be used by the general practitioner. Other methods of testing include the use of the eyes, nasal mucous membrane, etc., which have their hazards.

Herman Gold, clinician at the Chester Hospital Allergy Clinic, outlined the generally accepted methods of treatment; also the pre-season, season, and post-season application of specific agents directed toward those substances to which the individual by adequate tests, has been shown to be sensitive. He illustrated the results by presenting statistics from various allergic clinics including that of the Chester Hospital. A plea was made to treat the patients before the hay-fever stage in order to prevent the occurrence of pollen asthma.

E. ARTHUR WHITNEY, *Reporter*.

ERIE

Mar. 5, 1935

The meeting was held at Erie, President Arthur G. Davis, presiding. Arthur Shipley, of Baltimore, professor of surgery at the University of Maryland Medical School, was the guest speaker. He conducted nonoperative clinics before the morning and afternoon sessions, using the several cases to illustrate various cardinal points in diagnosis.

Case 1, a woman, age 57, with a complaint of painless jaundice, elicited a discussion of the causes of common duct obstruction. Pancreatitis is due to the backwash of bile and the resulting irritation of the pancreatic tissue; if the backwash is rapid, an acute pancreatitis usually supervenes; if moderate and recurring, there will be localized chronic changes. Cholecystectomy usually cures these latter cases. But surgery carries its risks—the danger of bleeding, the dehydration present, and starvation due to anorexia. If a carcinoma of the head of the pancreas is the obstructing lesion, a biliary fistula will remain following operation, and the system will suffer for lack of bile. Frequently it will be difficult to decide at the operating

table between chronic pancreatitis and carcinoma. This phase of abdominal surgery brings to mind Disraeli's remark to the effect that "half of his mistakes were due to rashness and the other half to indecision."

Acute pancreatitis is an abdominal mishap comparable only to mesenteric thrombosis and the rupture of a large ulcer. The optimum time for operation after ulcer perforation is after the period of immediate chemical peritonitis during the "quiet period," usually about 3 to 4 hours after the rupture. Suture alone is best, with the gastro-enterostomy to come later when there is no peritonitis. Four to 5 hours after an operation for acute pancreatitis is performed, a bloody effusion with spotty fat necrosis is usually found. The lesser peritoneal sac should be drained and, in order to prevent a later obstructive jaundice, it is best to do a cholecystostomy. The operative findings in a subacute pancreatitis are indefinite, although suppuration is usually present somewhere in the body by the time surgery is resorted to.

Cases 2, 3, and 4, with foot gangrene, provoked an analysis of the diagnosis of peripheral vascular disease. Case 2, with a painless swelling of the right foot following closely upon a left hemiplegia, had no pulsation palpable in the vessels at the ankle. Gangrene was due to a developing arteriosclerosis; with old age, that part least effectively nourished was first damaged by the lessening blood supply. The only salvation is for the collateral vessels to develop parallel with the narrowing of the main arteries. Essentially, peripheral vascular disease is the main cause of death, including in this category coronary disease, interstitial nephritis, atrophic cirrhosis, and anemias of the nervous system.

In Case 3 there had been an ulcer at the base of the first metatarsal bone with localized redness, for a period of several months. There was only slight pulsation in the adjacent main vessels. The case was one of infection, a trophic ulcer; such a condition may be due to a defective blood supply, to a cord lesion (syringomyelia, transverse myelitis) or to diabetes or other constitutional disorders. Adequate circulation demands effective ability on the part of the artery, vein, and heart. In this case, there is a localized arteriosclerosis.

In Case 4 intermittent aches, pains, and numbness in the feet for 4 years were the chief complaints. The pain had been intense for 3 weeks. Thrombo-angiitis obliterans usually begins in the third or fourth decade of life and lasts until collateral circulation develops or until a complication such as gangrene arises. Seven years is usually enough time to allow for the development of collateral vessels.

The fourth type of peripheral disease is due to spasm, and may be either Raynaud's disease or the stupor arterielle found after local injury due to autonomic stimulation. The factor of spasm in peripheral disease can best be estimated by injection of the posterior tibial nerve with novocaine, and the subsequent recording of the temperature. A foot supplied with vessels of normal lumen will show a rise in temperature from 24° to 31° centigrade; an impeded vascular channel does not vary its temperature when the spasm factor is eliminated.

Successful therapy of all types of peripheral vascular disease depends upon an early development of the collateral circulation. This can best be done by rest, protection, and light therapy; the Pavaex machine for developing a surge between the negative and the positive pressure of a limb is proving of value in early cases of vascular obstruction and impairment.

Case 5, having staphylococcal septicemia with multiple foci of osteomyelitis, developed a discussion of the latter disease. The staphylococcal infection usually arises from a skin infection—acne, furuncle, fistula, hangnail, and the like; streptococcal osteomyelitis has its source as a rule in the teeth, tonsils, or sinuses. The process, usually affecting children, begins in the haversian system near the epiphyseal line level, because of the extremely active circulation at this point which allows greater chance for embolism. The earliest boring pains and deep tenderness are usually mistaken for an acute arthritis, or for a trauma into the joint (sprain). It is only after there has been extension of the process to the periphery that there is a red swelling; there may be extension into the epiphysis or into the medulla. To cure promptly, the case must be caught before these extensions occur—at the stage of pain and tenderness. If not seen until later, a 2-year convalescence can be expected, for the bone must sequestrate; operation is not indicated if the patient is not seen promptly and diagnosed in the first stage. The treatment is, rather, repeated small transfusions.

A frequent complication of osteomyelitis is septic pericardial effusion, first suspected by hurried breathing; roentgen-ray study should aid in the diagnosis.

A patient with osteomyelitis due to a compound injury should be operated upon immediately by thorough débridement; after cleansing, it is best to close without drainage as advocated by Eliason.

RALPH BACON, *Reporter.*

FAYETTE

Dec. 6, 1934

The meeting was held at the Uniontown Hospital with the combined counties of Washington, Westmoreland, and Fayette. L. Dale Johnson, of the Fayette County Medical Society, presided.

G. W. Ramsay, pathologist at the Washington County Hospital, gave an address on "Rheumatic Heart Disease and Subacute Bacterial Endocarditis." He said that rheumatic fever is the most frequent cause of generalized or localized infection of the heart. Subacute bacterial endocarditis frequently follows damaged valves. Rheumatic fever is often regarded as an indwelling, recurrent infection, usually caused by a streptococcus. The essential lesions are numerous submiliary nodules in the various tissues in the body. They vary in size, and in the heart, where they are called Aschoff's bodies; they have a definite relationship to the adventitia of the coronary arteries. They are found more often in the left ventricle near the intraventricular septum. An absence of these nodules does not exclude rheumatic involvement. Cloudy swelling and fatty degeneration are usually present. The mitral valve, aortic, tricuspid, and pulmonary valves are involved in the above sequence of frequency. The principal lesion is a valvulitis. In both lesions marked exudation is present with cellular proliferation.

Presystolic murmurs are due to the stiffening of the valve leaflets following infection. Pericardial rubs are due to the infection of the surface of the pericardium with the later formation of adhesions which subsequently prevent adequate muscular contraction. In the acute stage of rheumatic fever, failure of the ventricles is the usual cause of death.

Subacute bacterial endocarditis is an essential carditis, while rheumatic fever is more or less generalized. Ninety-five per cent of the cases of endocarditis are

due to *Streptococcus viridans*. Expectancy of life after the onset varies from 3 or 4 months to 3 or 4 years. The mitral valve is the most often affected, usually with proliferated lesions which invariably are not covered by the endothelium of the heart. Many streptococci may be found near the surface of the ulcerative areas while only cloudy swelling and fatty degeneration of the myocardium are present. Aschoff's bodies have been demonstrated in 11 per cent of these cases. Many emboli found in these lesions are exploded frequently through the body. Those lodging in the kidney rarely cause pain because the capsule of the kidney has a separate blood supply. Those lodging in the spleen frequently cause localized pain.

In discussion Walter Bortz, Greensburg, said in part: More cases of rheumatic fever occur about the age of puberty than at any other time. "Acute rheumatic fever kills at long range." (Sir William Osler.) The rheumatic series consists of tonsillitis, arthritis, endocarditis, chorea, and pleurisy. The treatment consists of: (1) Prevention of further infection and fatigue. It is rare for any child under age 10 to recover from rheumatic fever without an endocarditis; (2) massive doses of salicylates with a high caloric diet.

John B. McMurray, Washington, read a paper on "Differential Diagnosis of Sinus Thrombosis." One-third of the cases of mastoiditis result in lateral sinus thrombosis. It is difficult to determine from the outward appearances the pathology existing within. For the thrombus to form there must be: (1) An injury to the lining membrane of the sinus; (2) slowing of the blood current; and (3) an altering of the constituents of the blood. The thrombus may or may not be infectious. A patient with beginning lateral sinus thrombosis usually feels well, but a severe chill in a suspected case followed by a sharp rise in temperature, septic in nature, is always a danger sign especially if the fever is then continuous. A second chill followed by a septic temperature may determine the diagnosis. If there is a sudden fall in hemoglobin, a streptococcal infection is usually present and a transfusion is indicated. A blood culture is usually positive soon after the chill. The Tobey test may be performed with a needle in the spinal canal by first pressing on one jugular vein and then the other and watching the rate of descent on increased pressure on either side. Retinal changes are rarely present. A choked disk is often present following the ligation of the jugular vein. The contents of the spinal fluid are seldom changed. Many cases are unrecognized and many get well without surgery.

In discussion J. F. Farring, Greensburg, said in part: An epidural abscess frequently does not produce symptoms. A perisinus abscess is often silent with necrosis of the bone near the lateral sinus. The diagnosis of such a condition depends more upon the severe chill followed by a septic temperature than upon any other feature. The surgeon should not wait for the third rise in temperature. Early ligation and excision of the jugular vein often results in relief of symptoms and an ultimate cure.

President J. O. Anderson, of the Westmoreland County Medical Society, and President O. B. Snyder, of the staff of the Greensburg Hospital, outlined plans for a joint meeting of the Washington, Westmoreland, and Fayette county societies.

There were 59 members of the Fayette County Society present with 9 visitors from Westmoreland County and 4 members from the Washington County Society.

RALPH LIONEL COX, *Reporter*.

LACKAWANNA

Feb. 12, 1935

For the first time in many years, the management of the Hotel Casey, Scranton, found it necessary to set up extra tables to handle the overflow at the annual banquet; 260 physicians and their wives and guests were present. The entire stage show of the Capitol Theater was transported to the hotel ballroom, together with the theater orchestra, for an hour of entertainment, featured by Mae Murray, stage and screen star.

Leonard Freda was toastmaster. The honored guest of the evening was Walter W. Propst, the retiring president. In the absence of the speaker of the evening, George P. Mueller of Philadelphia, State Society President Moses Behrend, Philadelphia, spoke on "Medical Phases of Economic Security." Dancing followed the program.

Feb. 19, 1935

The annual joint meeting of the Lackawanna County Medical, Pharmaceutical, and Dental Societies was held in the lounge of the Chamber of Commerce, with Raymond J. Garvey, president of the County Medical Society, presiding. There was a representative group of each of the organizations present. The speaker of the evening, Wilmer Krusen, president of the Philadelphia College of Pharmacy and Science, gave an address on "Current Therapeutic Trends." It was interesting to note one statement made during the discussion, that "more doctors are writing prescriptions employing N. F. and U. S. P. drugs and preparations than ever before, since the Emergency Relief Board has required that only such drugs be used in relief prescriptions."

Feb. 26, 1935

The meeting was held in the auditorium of the Chamber of Commerce with President Raymond J. Garvey in the chair. The speaker of the evening was Edward F. Roberts, New York City, who showed and discussed 2 motion pictures, demonstrating "The Treatment of Pernicious Anemia by the Method of Dr. Murphy of Boston," and "The Treatment of Pneumonia."

Each film detailed every step in the diagnosis and treatment of these conditions from the arrival of the patient at the hospital until the time of his convalescence. In the treatment of pernicious anemia the parenteral and oral methods were carefully compared both as to efficacy and cost. It was definitely shown that the parenteral method with adequate administration of active material intramuscularly brought about an almost immediate "reticulocyte shower" and a much more rapid rise in the number of red blood cells and percentage of hemoglobin than did liver or liver extract by mouth. Improvement was particularly marked in those cases with involvement of the nervous system. Parenteral therapy is particularly appreciated by those who have become nauseated by continuous liver therapy. The maintenance dosage, after return to the normal blood picture, may be given as 3 to 5 c.c. of the concentrated active liver extract, hypodermically, every 3 or 4 weeks. In cases with cord involvement, massage, muscle training, and physical therapy must be instituted early in treatment to obtain a good result.

In the treatment of pneumonia, Dr. Roberts stressed the importance of early diagnosis and of instituting specific therapy as early as possible. The new Neufeldt method of typing pneumonia sputum takes only a short time and may be done in the office or at the bedside by

mixing a loopful of sputum with a drop of each specific serum and a drop of special methylene blue." Upon examination in a few minutes under a microscope, the swelling of the capsule will denote the type of pneumococcus present. In types I and II, Felton's serum, if given in the first 3 days of the disease, has definitely lowered the mortality in pneumonia. As an adjunct to treatment and while typing is being done, at the first sign of anoxemia, oxygen therapy should be instituted immediately by nasal catheter, by oxygen tent, or in an oxygen chamber. The last is preferred because it allows perfect control and an oxygen concentration of 40 to 60 per cent, which is absolutely essential if any benefit is to be derived.

Mar. 5, 1935

President Raymond J. Garvey presided. William E. Delaney, Williamsport, read a paper on "Management of Fractures of the Extremities." Dr. Delaney also showed 4 reels of motion pictures illustrating the methods in use at the fracture clinic of Dr. Lorenz Boehler, of Vienna, as well as the results obtained at the Williamsport Hospital on his fracture service. All methods of treatment are so designed that active motion may be instituted early, thus reducing the economic loss. Skeletal traction was used in most fractures of the lower extremity, the Anderson frame being preferred.

Mar. 12, 1935

The monthly business meeting was held at the Chamber of Commerce building, President Raymond J. Garvey presiding. During the next few weeks, a diphtheria immunization campaign is to be instituted under the direction of the society. All orders for toxoid in indigent families must be signed by the family doctor. The Public Relations Committee is planning an elaborate program to celebrate Health Day on the first of May. Two new members were elected, Harold Renaud Reed, of Waverly, and Sidney Walter Lockett, of Moosic.

FREDERIC B. DAVIES, *Reporter*.

LUZERNE

Feb. 6, 1935

The meeting was held in the Medical Building, Wilkes-Barre; President Joseph P. Dougherty presided. Josef E. Martin, Joseph N. Bruno, Nyles T. Kavanaugh, and Edmund F. Hanlon were elected to membership.

John T. Farrell, Jr., Philadelphia, associate in roentgenology, Jefferson Medical College, read a paper on "Diseases of the Accessory Sinuses and Their Relation to Pulmonary Infection." He said in part:

Recent clinical and experimental work has emphasized the relationship between infection of the nasal accessory sinuses and basal suppurative disease of the lungs unassociated with localized abscess. Infection of the sinuses is not always present with pulmonary infection of this type, nor is there always a causal relationship when the 2 occur in the same individual at the same time. In many instances the clinical course of the infection of the sinuses and the course of the pulmonary disease establishes beyond question a causal relationship. Successful treatment of the sinuses frequently leads to cessation of the pulmonary symptoms and to diminution of the changes seen roentgenographically in the lungs.

Roentgen examination is undoubtedly the best method of demonstrating the changes and consists of study of

the accessory sinuses and the lungs. In this climate disease of the accessory sinuses is common. Manges found evidence of infection of the sinuses in 60 per cent of a series of 354 asthmatics.

Three paths of transmission of infection from the sinuses to the lungs are theoretically possible. Infected material might be carried by the blood stream or by the lymphatics or it might be transmitted along the surface mucous membrane from the sinuses to the lungs. The most frequent method is extension along the mucous membrane.

The basal bilateral character of the pulmonary changes argues against vascular dissemination. When infected material is injected experimentally into the blood stream the resulting pulmonary lesion is a localized abscess which behaves differently clinically and has a different roentgenographic appearance from the pulmonary changes associated with disease of the sinuses. Multiple suppurative foci when due to dissemination of infected material by the vascular channels appear throughout the lungs and are not basal.

Lymphatic drainage of the sinuses is independent of that of the lungs and there is no gross anastomosis between the 2; but Mullin has shown experimentally that the 2 systems intercommunicate. It is extremely unlikely that this is the usual path.

Exclusion of the vascular and lymphatic trees leaves direct extension along the mucous membrane as the most plausible means. The character of the lesion and analogy with other conditions argues for this method.

Pulmonary infection occurs in conjunction with infection of the sinuses at all ages. It is important that the existence of sinus disease be determined at as early an age as possible, for long-continued untreated infection may lead to irremediable structural changes in the lungs.

When infection of the sinuses is responsible for pulmonary symptoms the extent of the changes and the number of sinuses involved varies. Frequently, there is evidence of a pansinusitis; all of the sinuses are evenly opaque to the passage of the ray. In other cases only one or more of the sinuses are dense. The increase in density is usually marked; sometimes a fluid level may be recognized in one of the antra or in a frontal sinus. In chronic disease of the sinuses unassociated with pulmonary involvement the changes are those of thickening of the lining membrane of the sinuses, or in some a mucocele may be evident.

The pulmonary changes associated with disease of the sinuses are basal. Roentgenographic markings in the medial portions of the lower lobes are increased. Normally linear shadows radiating from the hila are broadened and increased in density; they lose their normal sharpness and become fuzzy. The fact that the condition is bilateral is important in the differential diagnosis. Progress of the process leads to an increase in radiographic density, and eventually small translucent areas, due to the formation of bronchiectatic cavities, may develop.

Successful treatment in cases in which permanent extensive damage has not developed in the sinuses and lungs leads to remarkable regression of the density of these structures. Sinuses are sometimes restored to normal clearness. The exudate producing the increased pulmonary markings may be entirely absorbed or evacuated and the lung may be so restored that it presents a normal appearance. When the disease persists so long that fibrotic changes take place, the lung may never again present a normal roentgenographic appearance.

Sometimes exudate disappears and the basal areas become less dense, but the organized fibrotic tissue remains and the density of the lower lobes remains greater than normal.

There is little to differentiate clinically pulmonary symptoms due to infection of the sinuses from those due to other conditions. Cough, expectoration, fever, hemoptysis, loss of weight, and dyspnea may be due to one of several causes. When roentgen examination of the chest reveals a bilateral increase in the density of the shadows in the lower lobes the accessory sinuses should be investigated roentgenographically. If they are abnormal, treatment often leads to cessation of symptoms and to restitution of the lungs to normal. In cases in which the sinuses are normal some other cause must be sought for the symptoms and the abnormal roentgen appearance of the lungs.

Pulmonary basal abnormalities seen in association with sinus infection must be differentiated roentgenographically from those of asthma, basal tuberculosis, passive congestion, abscess, pulmonary neoplasm, bronchial obstruction, and from the infective changes secondary to pharyngeal and esophageal obstruction. Of these, the changes of asthma, passive congestion, and esophageal "spill over" present the greatest difficulties in differentiation. The thin walled cavity of basal tuberculosis, the localized changes of abscess, the unilateral changes of new growth and bronchial obstruction serve to differentiate these conditions from the bilateral basal inflammatory changes associated with disease of the accessory sinuses.

In discussion, W. J. Corcoran, Scranton, said that reinfection of the sinuses and lungs is known. Moderate roentgen-ray treatment is of value. Whooping cough cases come into this group and so these must be compared with whooping cases. No roentgenologist should give a diagnosis of tuberculosis on the first plate. James M. Nealon, Wilkes-Barre, said that bronchiectasis which is bilateral and basal tuberculosis are most confusing.

William W. Waters, Nanticoke, considers that whooping cough must be differentiated. An examination of a child is never complete until a throat examination is made, and so in lung conditions the sinuses should always be examined. The chronic cases are very difficult to improve. Dr. Farrell, in closing, said that whooping cough is important to differentiate. Dr. Manges gives roentgen-ray therapy in subacute sinusitis especially, if there are symptoms of asthma.

Mar. 6, 1935

The meeting was held in the Medical Building, Wilkes-Barre; President Joseph P. Dougherty presiding. Samuel P. Mengel and Herbert B. Gibby, gave a report of the special meeting of the House of Delegates of the A. M. A. in Chicago recently. Harry Rubinstein, Pittston, read a paper on "Rheumatic Carditis in Childhood. Its Early Recognition and Care."

He said in part: Heart diseases in childhood as a result of rheumatic infection may be divided into 2 stages: (1) The first stage is carditis, by which is meant inflammation of the heart before permanent lesions have developed; and (2) where there are well-developed permanent lesions or a group of potential cardiacs. In the latter group an explanation as to their mode of living is sought and an effort is made to make their lives more comfortable. If proper treatment is given the former group the carditis tends to abate.

During an attack of carditis either a part or all of

the organ may be affected. The symptoms are mild at times, except for a polyarthrititis or chorea.

The etiology is essentially that of rheumatic infection for which *Streptococcus hemolyticus*, as well as nonhemolytic strains, are responsible. The foci of infection in the majority of cases is believed to be diseased tonsils or infected teeth.

Swift, Zinsser, and others believe acute rheumatic fever to be an allergic state. They suggest that one who has an attack of the disease is in a state of allergy to streptococci. One person may be allergic to one strain while another may be sensitive to a different strain.

The age of onset varies. Females are more frequently attacked than males.

The symptoms of this carditis are characterized by an insidious onset. The children are pale, easily fatigued, have poor appetites, and gain slowly. Many complain of slight pains in the legs, feet, and joints. There is stiffness of the neck and limbs. They often become irritable, nervous, peevish, and are easily frightened. The abdominal symptoms may simulate acute appendicitis, and cases have been reported where little or no disease of the appendix was found at operation. During the active phase it is common for these children to complain of epigastric pain which is probably precordial and not gastric.

Examination of the heart shows a diffuse apex beat with a soft blowing, systolic murmur at the apex which may or may not be transmitted. It is often heard over the whole precordium. Myocardial involvement will present the signs as tachycardia and pyrexia, lowered cardiac efficiency, and slight cardiac enlargement. The first sound is often indistinct and reduplicated, or an accentuated second sound is heard at the apex.

In cases of pericardial involvement, the friction sound is heard first at the base and the left margin of the heart. If the sound disappears after a few days without any improvement in the general condition, the suspicion that an exudate exists is justified, and a roentgenogram will aid in the diagnosis.

The prognosis is good, especially when the valves are the only portions of the organ affected, as the tendency is to heal without deformity. The effects on the myocardium are apt to be repeated.

The treatment consists of complete rest in bed until the cardiac condition, pulse, and temperature are normal, and the symptoms are gone. At least 3 months' convalescence is necessary. Attention must be paid to eradication of foci of infection, and increasing the general well-being of the child. Salicylates are safe and must be given in large doses. Aspirin irritates the stomach the least. Pyramidon also gives good results. An ice-bag over the precordium is helpful. Cod liver oil and iron are of value.

The pericardial effusion is seldom so great that aspiration is necessary.

As it is impossible to prevent a first attack of rheumatic infection, we should impress upon the laity the seriousness of a recurrence or subsequent attack. Early elimination of foci of infection, increasing the resistance, and prolonged rest should be insisted upon.

Charles H. Miner, Wilkes-Barre, emphasized the importance of early diagnosis and stressed the importance of prolonged rest in bed, and of increasing the nutrition of the child. An important sign is a leukocytosis; the child must be kept in bed until the white cell count, as well as the pulse and temperature, is normal.

MARJORIE E. REED, *Reporter*.

LUZERNE (HAZLETON BRANCH)

Feb. 27, 1935

The meeting was held in the Elks' Home, Hazleton. Thomas M. McMillan, associate professor of medicine in the Graduate School of the University of Pennsylvania, was the guest speaker. The address was on "Rheumatic Fever." He said in part:

Our conceptions of rheumatic fever have changed greatly in recent years, chiefly as a result of a tremendous amount of research. The disease formerly was considered to be an arthritis in which endocarditis occurred in a certain percentage of cases only. The newer conception of rheumatic fever includes the facts that the joints may not be involved in many cases, even in the most malignant types, but that the heart is involved in practically all cases. It is now being recognized that the disease may affect any part of the body, just as tuberculosis or syphilis may.

Rheumatic fever is definitely an infectious disease. The causative organism is almost undoubtedly a streptococcus. No one specific streptococcus is responsible. The organisms are probably not carried through the blood stream, since streptococci are rarely found in blood cultures in rheumatic patients. They probably lie in focal spots, such as the tonsils, and exert their systemic effects by producing endotoxins which are carried through the circulation. The reaction of tissue to these endotoxins is probably an allergic phenomenon of hypersensitized tissue rather than a true inflammatory response to infecting organisms. The quickness with which joint infections flare up and subside is evidence in support of this hypothesis.

The duration of the disease is not 6 weeks, as we were formerly taught. It may run several years. It is definitely chronic and must be considered so if the best results of treatment are to be obtained. The pathologic lesion is indicated by Aschoff's bodies, or nodules—an area of round cells surrounding a central necrotic area. Rheumatic fever is present as long as these nodules remain, and they may be present for years. They persist as long as the hypersensitized state does. "Activity" should refer to the persistence of the hypersensitized state and the nodules.

Children are more prone to develop the hypersensitized state than adults. They have, or are potential victims of, the disease as long as this state continues. This explains why a child may have many recurrences. These recurrences occur because the child is hypersensitized and not over the hypersensitized state. Then any slight exposure to streptococcal infection of any kind brings on an acute flare-up. We are hesitant, therefore, to say a case is ever *cured*. Rather, we say *arrested*, or *inactive*, at least until the patient is out of childhood and well along in adult life.

Of the signs of activity (joint symptoms, fever, leukocytosis, sedimentation rate, weight loss), none are reliable in all cases. One of the most valuable guides, however, is the appearance of the patient. A sick-looking child, with characteristic pallor about the mouth (although cheeks and tip of chin may be rosy red) is still an active case. Another reliable sign is the electrocardiogram, which shows abnormalities in 90 per cent of cases, if tracings are made frequently enough.

The heart is involved in at least 90 per cent of all cases of rheumatic fever. The involvement may come very early, sometimes almost immediately. The degree

of damage may be minimal, but does not vary with the toxicity nor with the fever. The signs of early heart damage may be only a systolic murmur and a rapid rate. Since many febrile children show these signs, they are not reliable nor significant. Again, we must rely on the electrocardiogram for definite evidence. It may help to establish the diagnosis in cases of fever without arthritis, as well as show cardiac involvement in cases in which rheumatic fever is diagnosed.

The aim in treatment, primarily, is to find some means of desensitizing the patient. For this reason, vaccines are being used a great deal, but so far the results are not encouraging. Lacking this, the patient should be put to bed and a great deal of salicylates used. They are used for pain and fever, but will not decrease the incidence or severity of cardiac involvement. Rest, hygiene, and good food are essential. Time in bed may be anywhere from 3 to 18 months, or even 3 years. This may seem hard, but it is no worse than in the treatment of tuberculosis. Finally, all efforts possible must be made to prevent chances of streptococcal infection.

In discussion, Robert A. Gaughan asked if tonsillectomy is indicated in all cases; does it arrest the disease, or help as a routine part of the treatment? Manfred H. Kudlich asked if Aschoff's bodies are related to Heberden's nodes, and when activity may be considered over if it depends on the persistence of Aschoff's bodies. George B. Dornblaser asked about the value of the sedimentation rate, and what the present status of Small's serum is. J. V. Sutula asked if the speaker favored the use of digitalis in rheumatic fever. George F. Burkhardt stated that Ross V. Patterson showed in Philadelphia 2 years ago cases of rheumatic fever in 3 generations of the same family. Is there any hereditary aspect of the disease? John M. Dyson asked, since the incidence of rheumatic fever in Florida and Cuba is much less than in this part of the country, how climate is to be considered in relation to etiology and treatment.

In conclusion, Dr. McMillan replied that in most cases it is generally too late to arrest the process by tonsillectomy, as the damage has already occurred. Tonsillectomy helps only in removing the favorite site of streptococcal infection. A child can have streptococci in any other part of the body, and thus have recurrences. John R. Dyson asked whether or not it is true that tonsillectomy greatly decreases recurrence of rheumatic fever and chorea. Dr. McMillan said he would have the tonsils removed from his own children, but tonsillectomy does not prevent recurrences generally. He has not heard of rheumatic fever occurring in families frequently enough to make him consider it hereditary.

The rôle of climate in prophylaxis and treatment is based on the theory that there are fewer streptococcal infections in places like Florida and Cuba. Small's serum has proved to be of no value; it is based on the hypothesis that the disease is caused by one specific streptococcus and that this per se caused the lesions. Sedimentation rate is helpful sometimes, but not always, in judging activity. Digitalis is indicated only as, or if, the heart fails, and then only. It is hard to tell when activity is over. It depends upon cessation of the hypersensitized state, and this occurs at an age beyond childhood, such as 14, 15, 16, or 17 years.

JOHN M. DYSON, *Reporter*.

NORTHAMPTON

Feb. 15, 1935

The meeting was held at the Easton Hospital; Francis J. Conahan presided.

William L. Estes, Sr., chairman of the Green Memorial Committee, reported that his committee had decided to have a photograph of Dr. Trail Green and one of Dr. Edgar Moore Green placed together in a metal frame to which would be attached a medallion containing a suitable inscription, the photographs to be presented to the family.

The following resolutions of the Economics Committee were approved:

1. That no physician ask for consultation on a pay case without first advising the patient that such an opinion must be paid for.
2. That the physician be permitted to present his bill with the hospital bill and that the physician furnish the hospital with suitable bill forms.
3. That the Easton Hospital permit its physicians to render bills to all patients who are not charity cases, conforming to present hospital practice.
4. That advice be given the chairman of the SERB Medical Advisory Committee that the following method be inaugurated, i. e., to allot Transient Bureau work to the members of the Northampton County Medical Society desiring this work, so that each one will be given periods, and to take the members in alphabetical order from the district to be served.

5. That the president appoint a membership committee, and an intensive effort be made to make the membership 100 per cent in this county.

Harvey O. Rohrbach requested that the questionnaires sent out from the newly organized State Health Department be returned to him promptly so that he may be able to summarize the answers and make a report.

It was announced that a house-to-house canvass is to be made in Easton by the Girl Reserves in the interests of immunization against diphtheria. Those families found to be in need of it will be advised to report to their family physicians.

Arno Zack asked, "What is to be done about the recommendations of the Economics Committee?" He said that patients are being referred to hospitals on other than the form cards prescribed by the committee.

W. Gilbert Tillman stated that the advisory committee which is assigned to the County Poor Board has succeeded in saving the county several thousand dollars during the past year, and will continue to function for another year. He requested that the proposed change in the by-laws be carried over for another month because there had been no room in the current bulletin for the required publication of the resolution.

J. Stewart Rodman, professor of surgery, Woman's Medical College of Pennsylvania, spoke on "Surgical Indigestion." He said if more attention was paid to indigestion the patient would be sent to the surgeon at a time when surgery would be less handicapped. Indigestion is a big factor in appendix and gallbladder diseases. Surgery should be life-saving first and ideal thereafter. Indigestion is that vague feeling of distress, flatulence, and acid regurgitation that comes on after eating. If this is not cured after 2 weeks of simple medical treatment, the case is one for surgery. The roentgen ray is the best diagnostic help in about 80 per cent of the cases. Exploratory laparotomy by good operators carries with it practically no mortality.

Surgery must be individualized to the case in hand. In this country and in Great Britain, one does not find, as is claimed in Germany, that gastric ulcer is always preceded by a certain type of gastritis that is amenable best to subtotal gastrectomy. Pyloroplasty together with excision of the ulcer-bearing area can be done with a mortality of 5 to 7 per cent. Subtotal gastrectomy carries a much higher mortality. It is the fashion, for no reason, to decry the operation of gastroenterostomy. When carcinoma of the stomach can be diagnosed by pain, vomiting, and the presence of an abdominal tumor surgery can do little good. For a patient who complains of just a little weakness, and whose indigestion is not cured with simple medical care, whose roentgenograms show a niche (or even without it), exploratory laparotomy is indicated.

The essayist showed a large number of lantern slides descriptive of gastro-intestinal disorders.

FREDERICK J. PEARSON, *Secretary.*

PHILADELPHIA

Feb. 13, 1935

Symposium on "Barbiturates as a Potential Menace." This symposium was opened by J. Howard Graham, professor of organic chemistry, Temple University, Philadelphia, who gave a clear explanation of the chemistry of these preparations and showed how each of them was created. The race for the production of more and more variations on the part of the manufacturers was well depicted. While the beneficial effects of the barbituric acid compounds are well advertised, the toxic results have received insufficient general publicity despite the numerous recorded instances in literature of their deleterious effects. The speaker stressed the fact that the great danger of these drugs lies in the ease with which they may be purchased under the popular trade names which give no indication of the true character of the drugs. In England the barbiturates are sold only by physician's prescription. Of the 20 preparations in use, he believes that phenobarbital is the least toxic. In addition to producing sleep, the barbiturates may cause coma and death, symptoms of acute intoxication, cutaneous eruptions of the erythema multiforme type, cardiac manifestations, general irritability, and disastrous effects on the blood cells. There is a great tendency to cumulative action and effect and they should be used only under a physician's direction. He advised prescribing the drugs under the pharmacopeial name to avoid the patient's purchasing the product subsequently on his own responsibility. The insidious character of the cumulative effect of these drugs makes it a matter of public interest that legislation be introduced to prevent this form of self-medication.

"The Clinical Manifestations and Treatment of Barbiturate Poisoning and Barbiturate Idiosyncrasy" was discussed by Harold W. Jones. The probable factors that determine toxicity are the drug itself, the dose, the kidney condition, the ability of the organs to break it down, and individual susceptibility. If the kidneys are damaged the drug will not be eliminated for a long period and the cumulative action is sufficient to produce toxic results after any usual dose. In conditions in which there is marked liver damage but good kidney function, the results from barbital, phenobarbital, and sodium barbital are less deleterious. Although the lethal dose of barbital is large, fatalities

have been reported from as little as 10 grains. When toxic doses have been taken, the narcosis has lasted from 2 to 4 days, and cases have been reported in which the narcosis has lasted 10 days. These drugs also are habit forming and at times the habit is difficult to break. Phenobarbital, while it is of great use in the treatment of hypertension, which has been justified by experimental work, has toxic effects common to all the barbiturates. A prolific use of small doses may be followed by asthma, ataxia, diplopia, conjunctivitis, loss of consciousness, hallucinations, mental symptoms simulating alcoholic intoxication, also slowness or loss of speech, swollen tongue, inflamed gums, ulceration of the mouth, vomiting, diarrhea, skin anesthesia, pruritus, and cutaneous rashes, mostly of the erythema multiforme type.

A tremendous number of reactions have probably occurred and been observed in general practice which have never been recorded in medical literature so that the complete picture of the toxicity of these preparations has never been drawn. Actual poisoning by the barbiturates is manifested by symptoms of mental excitement, headache, ataxia, muscular twitchings, sleep, coma, shallow breathing, cyanosis, and pulmonary edema, sometimes restlessness and other indications of uremia. The general treatment includes lavage, if seen early, the application of heat, enema, usual feeding, oxygen, strychnine, and cocaine. The specific treatment consists of the use of picrotoxin, but this is of little value where the poisoning is due to phenobarbital or barbitol itself. As in opium poisoning the patient should be kept from the recumbent posture and should be kept afoot and walking about. Dr. Jones stressed the danger of the patients' purchasing these potent drugs on their own responsibility, and made suggestions as to the regulation and prescription of them. The dose should be estimated on the basis of body weight.

"The Rôle of Amidopyrine and Other Medicinal Substances in the Etiology of Agranulocytic Angina," was the title of the contribution of Thomas Fitz-Hugh, Jr. Agranulocytic angina, more properly called pernicious leukopenia, was first clearly described by Schultz of Germany in 1922, and since then has become increasingly important. There are now more than 600 cases on record in the literature on this continent, being reported for the most part during the past 6 years. During the years 1931, 1932, and 1933 more than 1000 death certificates for this disease have been filed in the United States Bureau of Vital Statistics.

The clinical pathologic features of this disease or syndrome were summarized in a lantern slide review of 18 cases. The data pertaining to these slides was published in the *American Journal of Medical Sciences*, April, 1933. At that time it was stated in the discussion of treatment that it was advisable among other measures to avoid any drugs that might produce an anaphylactoid reaction. A few months after this report was published, the work of Madison and Squier appeared and served to demonstrate in these cases a peculiar sensitivity reaction to amidopyrine. Amidopyrine was first prepared in Germany in 1893 but was patented under the trade name of pyramidon in 1897. It had limited use in Germany from about 1900 on, but its ingestion did not become widespread until about 1920 with the introduction of a multitude of proprietary preparations containing it. Although available in America under the trade name of pyramidon since 1910, it was

not until 1922 that American drug firms prepared it under the pharmacopeial name of amidopyrine.

Schultz' description of the new disease, which is called agranulocytosis, appeared in 1922. An occasional report of a similar condition appeared from time to time prior to this date. The first convincing evidence incriminating amidopyrine was presented by Madison and Squier, although others, including Dr. Fitz-Hugh, had suspected certain drugs, and some had pointed accusing fingers directly at amidopyrine. Madison and Squier observed that all of their 14 patients had recently ingested amidopyrine. The high mortality of those who continued to ingest this drug and the low mortality of those in whom the drug was discontinued, the obvious and universally recognized preponderance of doctors, doctors' wives, dentists, nurses, and technicians among the sufferers of this disease, and the dramatic effect of a test dose of amidopyrine on the leukocyte picture of individuals recently recovered from the disease, comprise the additional evidence adduced by Madison and Squier. Following this came a flood of similar reports. Most investigators in this field had almost similar experiences. Within the last 18 months there have been 150 case reports published of agranulocytic angina following amidopyrine medication.

Certain other drugs also containing the benzene ring had been recently incriminated, especially dinitrophenol, arsenobenzol, and neostibosan. Certain other etiologic agents capable of being interpreted as sensitizing factors appear entitled to suspicion in occasional cases. The barbiturates, at first under suspicion along with amidopyrine, have now been practically exonerated. The speaker showed the insidious manner in which amidopyrine would seem to enter into the picture of more or less mild ailments and by continued administration would change a simple condition into the tragic disease of agranulocytic angina. Failure on the part of the patient to appreciate the danger of the drug, especially in the course of continued ingestion, is responsible for these unfortunate results. This is due in large part to the various trade names under which amidopyrine and the proprietaries continue to masquerade.

Dr. Fitz-Hugh described the outstanding clinical features of agranulocytic angina and agreed with the preceding speakers in the matter of more stringent control in the distribution of such potent drugs.

In discussion Douglas MacFarlan asked permission to call to the attention of the society the fact that there had been introduced, at the Legislature in Harrisburg, a bill devised to regulate the sale of hypnotic and analgesic preparations in the barbiturate group. This bill would prevent the patient from purchasing such drugs except on a prescription from a physician. The society was asked to endorse this bill, which was done.

Dr. MacFarlan elaborated upon the theme of popularizing these drugs by means of the presentation of samples of these various preparations as left with the physician by the detail men of the various pharmaceutical manufacturers for distribution in pocket-sized packages.

The second step consists of the patient buying the preparation direct from the retail druggist under the name obtained from the label of the original package given him by the physician. Usually a year or 2 later the detailed sampling is discontinued, since it is no longer necessary. Meanwhile, the physician has given a character to the preparation by giving away the samples. The advertising is directed to the public at

large through the medium of popular magazines, and the public assumes the self-drugging, entirely unconscious of the disastrous possibilities involved in this performance.

Ambrose Hunsberger confirmed the remarks of Dr. MacFarlan and urged that the responsibility for this drug be lifted from the shoulders of the retail druggist, which could be accomplished easily by the passage of legislation such as had been discussed at this meeting.

Feb. 27, 1935

The meeting constituted interns' night; the papers were chosen from among a large group of essays submitted by the interns of the several large hospitals in Philadelphia.

"A Study of the Venous Blood Pressure in Some Common Diseases," was discussed by William B. Wartman, Lankenau Hospital. The material for this study consisted of 336 determinations of the venous blood pressure of 215 patients. The direct method of Griffith and his coworkers was employed, the values being read directly in mm. H₂O. Duplicate readings were made in a control series of patients, the average venous pressure being 83 mm. H₂O with an average deviation of 17 mm. H₂O. This is in agreement with most workers who have placed the normal range from 60 to 120 mm. H₂O. An elevated venous blood pressure was encountered only in those patients who had cardiac decompensation or mediastinal obstruction and was an early sign of a break in compensation. Patients having other diseases in which congestive heart failure did not occur had normal venous blood pressure. Serial readings of the venous pressure were of value in following the course of cardiac cases, a shift towards normal being a favorable sign, while a progressive increase was an unfavorable sign. Phlebotomy is indicated in those patients with congestive heart failure and a venous blood pressure of more than 200 mm. H₂O. The efficacy of this form of therapy was reflected in the behavior of the pressure following blood letting. The arterial and venous blood pressures appear to be independent of each other, a change in the one not necessarily affecting the other. In arterial hypertension an increase in the venous pressure occurs only when there is a break in the cardiac compensation. The existence of pulmonary tuberculosis, bronchial asthma, or emphysema did not affect the venous blood pressure of the cases studied.

"Hematuria," was presented by Walter E. Daniel, fellow in urology, Pennsylvania Hospital. He showed that the importance of hematuria rests upon 2 facts: It is practically always indicative of one or more serious urologic lesions; and it necessitates a complete diagnostic study which should be carried out immediately in most cases. The paper covered the incidence and etiology of hematuria in the personal experience of the essayist, and the citation of a group of 5 cases of gross hematuria of most unusual interest. In 9 months' urologic service, out of 239 admissions there were 57 (23.5 per cent) cases of either gross or microscopic hematuria; 41 had gross hematuria and 16 showed only microscopic blood in the urine. There were 48 males from age 12 to 73 (average age 47.7 years), while the ages of the 9 females ranged from 9 to 66 years (average age 36 years). While the sex incidence is slightly in favor of the males, the average age influence is 10 years less in women, which is attributable to the greater frequency of bladder tumors in men, to which must be added hematuria incident to lesions

of the prostate gland. Urolithiasis was the most frequent cause of hematuria in the group, there being 21 cases (37 per cent) due to this cause; 18 were either renal or ureteral, and 3 were in the bladder. In 4 cases the calculi were radiotranslucent. Neoplasms of the bladder were present in 14 cases (24.5 per cent), 7 of which were carcinomatous and 7 papillomatous, the latter diagnoses being made by cystoscopic appearances of the tumors. Twelve of these cases occurred in men. There were 4 cases of hematuria from carcinoma of the prostate, 3 of which showed gross bleeding. Advanced prostatic carcinoma was the third most frequent cause of hematuria in this series, although it is generally held that benign prostatic hypertrophy is more productive of hemorrhage. There were 3 cases, 2 of them women, in which no cause could be found other than cystitis despite a most exhaustive urologic examination. There were also 2 cases due to renal tuberculosis; 2 to benign prostatic hypertrophy; 2 to pyelitis; and 1 each to adenocarcinoma of the kidney, pyelonephrosis, hemangioma of the kidney, and foreign body in the bladder. Five cases (8.7 per cent) were not definitely diagnosed. The reported incidence of undiagnosed cases is approximately 5 per cent. In summarizing, the speaker showed that in 25 cases the origin of the hematuria was in the upper urinary tract and 32 in the lower tract. The clinical histories of 5 cases of hematuria of unusual character were also given. These served to emphasize the value of the modern intensive urologic diagnostic technic.

"Roentgen-Ray Positive, Seronegative Infantile Congenital Syphilis," was the subject of the paper by Norman R. Ingraham, Philadelphia General Hospital. The essence of this paper was the demonstration of the unreliability of serologic examination of the newborn as contrasted with the definite diagnostic data obtainable by roentgenologic studies. The speaker referred to a group of 49 cases studied by means of the roentgen ray; 26 at the age of 6 days and 23 from the age of 1 to 10 months. The lantern slides emphasized the typical objective symptoms which appeared rather constant in connection with the bones. These comprised sclerosis and rarefaction, spurring at the ends of the bones and haziness along the margins. These features form a positive basis for the diagnosis of congenital syphilis.

"The Value of Excretory Urography as an Aid in Diagnosis to the General Practitioner," was presented by Glenn A. Deibert, Jefferson Hospital. Intravenous or excretory urography represents probably the greatest advance in urology since the development of retrograde pyelography in 1905. It is a development of the past 4 years and is now a fairly standardized procedure in the study of diseases affecting the urinary tract. It consists of the intravenous injection of a nonirritating radiopaque substance that is excreted unchanged by the kidneys and thus outlines the urinary tract on the roentgen-ray film. An additional interest was added to this paper by a historic review of the development of the procedure. The technic is as follows: The patient is prepared as for a flat film or plate of the abdomen. At Jefferson Hospital, an ounce of castor oil is given at 11 o'clock the night prior to the day of the urography. In the morning breakfast is withheld and fluids restricted. Some prefer to give pituitrin and eserin salicylates to help rid the intestinal canal of gas, the last dose being given an hour prior to the first roentgen-ray exposure. An ampule of neo-iopax (a pyridine derivative with 51.5 per cent iodine in close

organic combination) warmed to body temperature, is injected slowly into the vein of the forearm with an ordinary 20-c.c. syringe. Care must be taken that the needle lies centrally in the lumen of the vein and that the injected fluid becomes well diluted with the blood stream. Roentgenograms are taken at the end of 5 minutes, 15 minutes, and an hour. If the excretion is poor, further films are taken at hourly intervals. Usually the injection is well tolerated. Occasionally pain at or about the site of the injection, sometimes radiating to the shoulder, headaches, slight rise of temperature (never a chill), nausea, vomiting, dryness of the throat, thirst, urticaria, and even symptoms of acute iodism may be observed. These symptoms are transitory. Death has been reported but only in improperly selected cases. The procedure is contraindicated in advanced renal insufficiency, iodine idiosyncrasy, pregnancy, active tuberculosis, thyrotoxicosis, advanced liver disease, acute and chronic renal disease, and high blood urea retention. Its greatest value is in determining stasis in the renal pelvis or ureter, in interpreting shadows in the upper part of the urinary tract, and in giving a fairly accurate estimation of renal function. It is useful in the differential diagnosis of diseases of the upper urinary tract. This was well demonstrated by a number of lantern slides.

"The Effect of Cholecystectomy on Hepatic Function," was described by G. Ricchiuti, Jefferson Hospital. In an attempt to investigate the pathogenesis of the postoperative phenomena in cholecystectomy cases, studies were made upon patients with biliary disease before and at frequent intervals after operation. In this report the observations with regard to serum bilirubin concentration and bromsulphthalein retention in a series of patients with cholecystitis without clinical jaundice but in whom cholecystectomy was performed, were recorded and analyzed. These are summarized as follows: A temporary increase in serum bilirubin occurred in 26 (63.4 per cent) of 41 cases with apparently normal preoperative hepatic function; postoperative dye retention was noted in 16 (39 per cent) of the cases; increased bilirubinemia occurred in 9 (47.3 per cent) and increased dye retention in 11 (57.9 per cent) of 19 patients who showed some degree of hyperbilirubinemia or dye retention before operation. This temporary postoperative impairment of hepatic excretory function bore no constant relation to the nature or duration of anesthesia nor to the preoperative state of hepatic function in this group of cases. It is believed to be dependent probably upon the diminished volume flow of bile which follows cholecystectomy and which interferes with the mechanism whereby a damaged liver compensates for impairment in its ability to concentrate certain solid constituents of the bile. Patency or occlusion of the cystic duct appeared to be of significance in determining the occurrence of these postoperative functional abnormalities. Increased dye retention occurred in 73 per cent and increased bilirubinemia in 79 per cent of those cases with patent cystic ducts, whereas the corresponding figures in the group with cystic duct obstruction were 17 per cent and 31 per cent respectively.

WARREN

Feb. 18, 1935

The meeting was held at the Conewango Club, Warren, at 4:30 p.m.; 28 were present.

A. Follmer Yerg discussed "The Etiology, Differential Diagnosis, and Treatment of Migraine."

The various theories relating the symptom to endocrine disturbance and to vasomotor spasm were discussed, but migraine or hemicrania remains as much a mystery as ever. Migraine is seldom associated with brain tumors.

Antipituitrin substance has been used in some cases with benefit.

The discussion tended to show that the disease was not common in general practice. In some research a disturbance of calcium balance was found and treatment with calcium proven advantageous.

Erwin S. Briggs, Otis S. Brown, Frank M. Buckingham, and William M. Cashman were the hosts.

MICHAEL V. BALL, *Reporter*.

YORK

Feb. 20, 1935

President Robert L. Ellis was in the Chair.

Edward Rose, associate professor of medicine, University of Pennsylvania Medical School, spoke on "The Diagnosis and Treatment of Hyperthyroidism."

Because of the fact that the York County Society is now holding its scientific meetings at 3 p.m., each third Wednesday of the month, the meetings are well attended.

In the absence of the reporter, this report is incomplete.
H. MALCOLM READ, *Reporter*.

SECOND DISTRICT COUNCILOR COMMISSION MEETING

The meeting was held at the Valley Forge Hotel, Norristown, Feb. 20, at 12:45 p.m., with 31 members present. Every county in the district was represented by at least 3 officers or chairmen of committees. Luncheon was served.

Trustee and Councilor Edgar S. Buyers said in part:

The function of the Councilor Commission is to interchange ideas between the State Society and the component county societies represented here. It is important that the State Society should acquaint the various county societies with its aims and policies. It is equally important that the county societies should present their problems to the State Society. We will, therefore, this afternoon expect a full discussion of the papers to be presented. The question is often asked, "What is The Medical Society of the State of Pennsylvania doing for me?" The average member knows that the State Society offers him medical defense, the JOURNAL, and if necessary medical benevolence. Many of our members are absolutely ignorant of the great work in medical economics, public relations, and medical legislation the State Society is endeavoring to put over for the welfare of the individual members. We hope to-day to bring out that part of the work of your State Society in order that you may take the message home with you and impart it to those who are poorly informed.

There are 6 war horses in the State Society, 3 of whom are present to-day. President Behrend informs me he has never declined an invitation to speak in behalf of organized medicine. Dr. Francis F. Borzell, newly appointed chairman of the Committee on Medical Economics knows economics as few do and devotes his days and nights to the betterment of our State Medical Society. Dr. George L. Laverty, chairman of the Ad-

visory Committee to the State Emergency Relief Board, knows how to throw off opposition and has devoted many long and weary hours to that much discussed subject, emergency medical relief. The other 3 war horses are not with us, but I desire to mention their names: Dr. Wm. H. Mayer, Pittsburgh, chairman, Committee on Public Relations; Dr. Chauncey L. Palmer, Pittsburgh, chairman, Committee on Public Health Legislation; and our efficient secretary, Dr. Walter F. Donaldson. With these 6 men as our leaders we cannot fail.

The chairman called attention to the special meeting of the House of Delegates of the American Medical Association and presented each member of the commission with a report of the Reference Committee.

President Moses Behrend, of the State Society, spoke on "Proposed Changes in the Workmen's Compensation Law." He said in part:

Several bills have been introduced into the legislature, but all have been found wanting. There is nothing definite as yet in regard to our recommendations and those of the administration concerning the desired changes in the law. Governor Pinchot's Commission suggested many recommendations which to a great extent satisfy labor and the physician. The recommendations were published by the Department of Labor and Industry in November and December of 1934 and in a pamphlet called "Outline of Needed Changes in the Pennsylvania Workmen's Compensation System." So far as labor is concerned, the compensation benefits should prevail from the time of the accident and not from the time of the disability. There should also be an increase in the amount allowed for the injury. So far as the physician is concerned, the Commission recommended, in a large measure, all the changes that the doctors desire, namely: The extension of the 30-day limit to infinity; the abolition of the \$100 fee to unlimited; and the physician may be a party in interest and the injured man should have a limited choice of physicians.

There will be considerable argument concerning these recommendations on account of the supposed increase of costs to the employer of labor. Under medical recommendations, choice of physicians will be very limited. It does not conform to our ideas of limited choice of physician. It allows the injured man a consultation with the physician of his own choice, the cost not to exceed \$5.

Senate Bill 78 has been introduced amending the Workmen's Compensation Act to include occupational diseases. Senate Bill 83 and House Bill 43 amend the Workmen's Compensation Act for the referee to award remuneration in accordance with a table agreed on by The Medical Society of the State of Pennsylvania and by the Pennsylvania State Hospital Association and approved by the Board. House Bill 379 is to amend the Workmen's Compensation Act to extend over 30 days to 6 months, a period following industrial injury during which the employer must provide medical treatment to an injured employee. The proposed liability, however, under the bill is unlimited. House Bill 404 amends the Workmen's Compensation Act to make compensable any occupational disease. House Bill 417 amends the Workmen's Compensation Act to compel the employer to report within 30 days the beginning of a disability of an employee due to an occupational disease.

Francis F. Borzell spoke upon "The Relation of Organized Medicine to Social Insurance." This paper appears in full on page 513 of this JOURNAL.

George L. Laverty spoke on "One Year of Emergency Medical Relief."

Emergency medical relief is a child of the depression. The plan has been in operation since Dec. 1, 1933. The relief load has averaged 375,000 families—1,500,000 people (now approaching 500,000 families). The number of authorizations for medical services has averaged 22,000 monthly, and for dental services 7000. The total cost of medical relief during the first year was \$1,637,000; of this amount \$1,211,514.52 was paid to the physicians. Contingent liabilities amount to approximately \$300,000. Medical service for the Works Division and transient camps has cost about \$200,000 additional.

It is of interest to note that Europe has founded her sickness insurance plans on preëxisting customs such as guilds, contract practice, and trade unions. This country, with its tremendous expanse of territory, urban and rural communities, varying industries and diverse component racial origins, has no such foundation. Emergency medical relief, in its conception, was a pioneer endeavor. The initial step demanded laying a broad and firm foundation. These basic principles were established: Collective bargaining between the state and the organized professions of the healing art; preservation of the patient-family physician or dentist relationship; and payment for professional services on a fee basis. These foundation stones are in direct opposition to sickness insurance, which has lay control, a panel, and payment on a salary basis.

Emergency medical relief—the American plan—provides care for the indigent; sickness insurance—the European plan—neglects the man in need but provides care for the low-income group.

The first 2 months of emergency medical relief were devoted largely to organization of advisory committees. state and county administration, and acquainting participating physicians, dentists, pharmacists, and nurses with the procedure. The tremendousness of this latter effort can be recognized by the fact that 9800 physicians have participated in treating relief recipients. During these months the \$20 fee for delivery and the requirement of 6 prenatal visits caused an avalanche of protest. Not a single criticism of the maternity regulation during the past 6 months has been heard. Experience indicates that the mortality rate of mother and child is being reduced by the prenatal regulation although exact figures are not available.

The late winter and spring months witnessed 50,000 orders monthly entering the office of the medical director and an inexperienced force was overwhelmed by the avalanche. Delay in issuing checks was inevitable. Some of you will be surprised to receive payment some day for these accounts as some bills were pushed aside and piled high in the office of the State Treasurer when the stream began to flow more smoothly.

At this time the uncoöperative physician was encountered. These infringements included advertising, soliciting patients, overcharging, excessive treating, and willful antagonism. The program was then passing through its critical stage and failure (the doom in several other states) was imminent. Drastic treatment alone could support the sinking patient. The removal of .5 per cent of the participating physicians from the participating list preserved the program for the benefit of the 99.5 per cent who coöperated.

The next crisis occurred in August and September. A bankrupt State Treasury and a reduction in federal funds required drastic horizontal downward adjustment in bills for medical services. This circumstance led to the dissatisfaction expressed at the state convention at

Wilkes-Barre. The State Medical Advisory Committee had made requests for increased funds but these were made available just as our convention was closing its session.

One year of experience has shown emergency medical relief to have its virtues and its faults. The plan has operated to the mutual benefit of the patient and the physician. Professional service has been rendered superior to that obtainable from the directors of the poor or the free dispensary. Physicians benefiting from the plan have been those whose incomes have been most seriously affected. This financial assistance has been to some physicians a means of preventing serious financial embarrassment. Coöperation between organized medicine and the individual physician has been far beyond expectation. Political interference has not been encountered. No proven case of inadequate medical care has been found. It has encouraged more accurate diagnoses, improved case records, and better bookkeeping. Noteworthy has been the stimulation of the interest of the physician in the economic and sociologic side of medicine.

The outstanding defect has been the inadequate funds available. The Committee on the Costs of Medical Care estimates \$36 per year per person necessary to provide adequate medical service; emergency medical relief has provided about \$1.09 per person. From each dollar spent for medical relief 74 cents went to the physician, 15 cents to the dentist, 7 cents to the pharmacist, and 4 cents to the nurse. Contrast this with the report of the Committee on the Costs of Medical Care which divides the medical dollar of 1929 as follows: Thirty cents to the physician, 12 cents to the dentist, 18 cents to the pharmacist, and 5.5 cents to the nurse. The remaining 35 cents went to hospitals, cultists, public health, and others.

Relief funds are public funds and require a complex system of auditing, not only in order to protect against the possibility of fraud, theft, or loss, but also to make the required public accounting of their use. Administrative cost was 6.2 per cent. This contrasts with an average overhead cost of 17 per cent by the county and district poor boards.

Medical Relief has spent 1.7 per cent of the funds available for relief. This contrasts with 4 per cent of the national income of 1929 which was spent for medical care. Incomplete returns indicate that the ratio of medical orders issued to direct relief cases is 7.1 per cent, to work relief cases 3.4 per cent.

A criticism sometimes made is that one county receives more than its share of the funds. A study of payments made during the first year of operation reveals that but 4 counties have varied more than 1 per cent from their share in proportion to their relief load.

THE FUTURE

Realizing the inadequacies of medical relief, your State Medical Advisory Committee has repeatedly discussed the problem with administrative authorities. A change in administration has deferred rewriting the rules and regulations. The incoming administration has a receptive ear and this program has been but temporarily delayed. At an early date (probably early in March) a conference will be held in Harrisburg for this purpose. Physicians, dentists, pharmacists, nurses, and social workers will be invited to attend. Preliminary discussion indicates that a determined effort will be made to regiment the various professions under the domination of the hospital and social worker. The challenge is

before us. Will we approach this conference with strife within our ranks or will we present a united front?

Our year of experience has proven that organized medicine can control its practice without interference. A concrete example of this fact is demonstrated in the collateral activity of work relief. The State Workmen's Insurance Fund reports superior medical care to this group of men at a cost of about \$8.50 per accident in contrast to inferior care at a cost of about \$18.50 per accident to men employed in commercial trade. The medical referees are paid a nominal salary. A plan patterned after this (now under trial in Philadelphia and Pittsburgh) must be extended to all counties in order to relieve the county medical advisory committees of detail.

The Emergency Child Health Program has been most commendably operated by volunteer efforts of physicians. A survey of Philadelphia revealed that 95 per cent of school children had dental defects, 30 per cent being in urgent need of attention. Thousands of children need tonsillectomies and other corrective surgery. The law demands that the child attend a school which is expensive to maintain and be provided with textbooks, but the child is refused the lenses necessary to correct his defective vision.

Adequate medical care demands removing the restrictions now imposed upon the healing arts. The limit of money and visits allowed must be amplified; consultation, roentgen-ray and laboratory services provided; the physician on hospital duty paid for his care of the ward and dispensary patient; the dispensary must be limited to treating emergencies and such cases as are not treated with facility in the home or office.

Special Bulletin No. 63, recently issued by the State Welfare Commission and reporting its study of state aid, reviews the functioning of the outpatient department in detail. Payment to the hospital for each patient contact is recommended. Present inefficiency is noted and idealism pictured. No mention is made of the physician who donates his time, talent, and effort.

With gonorrhea and syphilis now unrecognized by medical relief, the spirochete is preparing the next generation of paretics for our insane wards while the gonococcus condemns countless youths to lives of sterility.

Nursing service in the city districts is woefully inadequate; in towns and rural communities it is almost nonexistent. Every nurse on relief has a family in need of her ministrations. Drugs such as insulin and appliances such as trusses are needed.

Let us consider our state institutions briefly. The building program of 1925 anticipated a 10-year need; \$50,000,000 was promised. To-day we can view these 10 years in retrospect; \$15,000,000 has been provided. It is questionable if this sum has compensated for depreciation. Insanity is increasing at the rate of 1200 to 1500 cases annually. Immediate needs are 3000 beds in hospitals for the insane and another 3000 in the next 2 years. Byberry has a capacity of 3500 but has 6000 patients crowded within its walls. Twenty-six hundred feeble-minded persons in the state are on the list of the Department of Welfare awaiting appropriate institutional care (meanwhile reproducing their kind). From 1000 to 1500 sufferers from tuberculosis constantly have their names on the list awaiting sanatorium care.

The Legislature appropriated about \$7,000,000 to general hospitals at its last regular session. A study made about a year ago revealed that the amount of the appropriation in proportion to charity work done in different hospitals varied from 5.11 per cent (Abington) to 115 per cent (Adrian). With hospitals clamoring for

participation in emergency medical relief, would this money not be distributed more equitably and efficiently by the Department of Health or the S. E. R. B.? The Department of Welfare is excluded from this statement as the administration of all agencies safeguarding the public health should be vested in that department having medical supervision.

CONCLUSION

The medical profession is criticized for having no plan. Here is our plan (proposed by the House of Delegates of the American Medical Association in 1922). What will it cost Pennsylvania to provide it?

At least 20 million dollars annually is necessary to maintain this service and an additional 10 million for several years for capital charges—adequate expansion of institutional facilities. And thus the cost of medical care will be distributed; the physician will no longer be carrying the load of indigency by having his entire income derived from the patient who has the will to pay.

It is the duty of a nation to care for its indigent. This is the American plan.

The keynote of the discussion on these papers was that the profession must supervise its endeavors in the field of economics and medical relief.

The Woman's Auxiliary to The Medical Society of the State of Pennsylvania

MRS. GEORGE C. YEAGER, *Editor*, 1419 E. Susquehanna Ave., Philadelphia, Pa.

OF INTEREST TO ALL MEMBERS

The following letter received from the chairman of the Public Health Legislative Conference of Allegheny County is here brought to the attention of all auxiliary members because of its immediate importance:

"In a report of Dr. C. L. Palmer, chairman of the Public Health Legislation Committee of the State Society, the following appears:

"House Bill No. 297 proposes the creation of a separate Board of Examiners for chiropractors whereby they desire to be permitted to treat surgically, medically, manually, mechanically, and electrically all ailments of the human foot except the correction of deformities requiring the use of the knife—amputation of the foot or toes—or the use of an anesthetic other than local.

"The chiropractors are at present licensed under the State Board of Medical Education and Licensure, under the Department of Public Instruction (Education), according to their qualifications. This proposed bill gives them the privilege of treating all ailments of the foot whether these ailments may be local in etiology or the result of some general systemic condition, which in our estimation is too broad for their educational qualifications. In the interests of public health, this bill (297) should be defeated."

Kindly contact your senator and representatives and secure an opposition to this bill, the reasons for which appear in the quotation from Dr. Palmer's letter.

A MESSAGE FROM THE HISTORIAN

"History," says Webster, "is a narrative of what men have thought and done in times past, whether a day, a week, a year, or a millennium ago." To this I would add the 2 last lines from Hilaire Belloc's "More Beasts for Worse Children."

O! let us never, never doubt
What nobody is sure about!

It gives me a nice loophole if ever my accuracy is questioned, or if I become too flowery in my description.

The Woman's Auxiliary to The Medical Society of the State of Pennsylvania was organized by Mrs. W. Wayne Babcock, of Philadelphia, at Reading, in October, 1924.

To me the word auxiliary recalls 2 pictures: (1) A large caldron, bubbling on the back of a kitchen stove, sending fumes of carbolic acid and tar through an open window into the perfume-laden summer air; a little woman dressed in a blue calico wrapper, a large checked apron tied about her middle, sleeves rolled to her elbows, her face red from the heat of the stove and streaming with perspiration, stirring into existence the first disinfectant ever invented. Two interested children came in from the yard to watch little Mrs. Thomas bottle the first batch of creolol. I was one of those children. Creolol was an invention of Dr. Harry Bullen and Dr. L. C. Thomas of Latrobe, Pa. To me, Mrs. Thomas was the auxiliary. (2) A young mother, a doctor's wife, was in the back yard with her 2 babies. A man rushed into the yard demanding the doctor immediately—his wife was having a baby. The doctor was out in the country and could not be located, so there was nothing for the young mother to do but lock her babies in the yard, grab the obstetric bag, and go with the father-to-be. Faith, hope, and prayer got her through the delivery, which I am sure was harder on her than any she herself ever had, before or since, and when she got home, after bathing and dressing a fine 8-pound boy, she found her own 2 babies lying sound asleep in the boiling sun—practically parboiled. That, to me, was Auxiliary. The babies peeled.

The Woman's Auxiliary, since its organization, has given to women who are doctors' wives much that an auxiliary unorganized never could have given. It has given association, a common interest, and a means through combined effort of controlling situations. It has led us to know our neighbor and her problems. It has given us an opportunity to help the doctor in that gentle, unobtrusive manner, which has ever been the province of womanhood. It has given us love—"And the greatest of these is love."

The Pennsylvania State Auxiliary has been honored by having 2 of its members elected president of the national organization: Mrs. J. Newton Hunsberger, Norristown, and the late Mrs. Walter Jackson Freeman, of Philadelphia.

In the 10 years of its existence the State Auxiliary has increased in membership from 726 to approximately 1600.

Your historian and chairman of Archives has started a museum, called "The Permanent Medical Memorial Exhibit." This exhibit is the property of the Woman's Auxiliary to The Medical Society of the State of Pennsylvania. It contains books, instruments, and other impedimenta owned and used by physicians who have lived and practiced in Pennsylvania. Its object is twofold: To preserve old medical articles in one place, where they can be seen at any time; and to keep alive, by means of this exhibit, names of men who have practiced the healing art in Pennsylvania, whether that person died a hundred years ago or last week.

This exhibit is ours—yours and mine. It cannot grow unless you help. It should be very large and interesting by the time it is sent to Atlantic City for the national meeting. "Something from each county," should be our slogan. Presidents, please take notice and advise your county auxiliary. I shall be waiting for your contributions.

MARGARET OSBORN (MRS. DAVID B.) LUDWIG,
Historian and Chairman of Archives.

COUNTY AUXILIARY REPORTS

Allegheny.—The auxiliary sponsored a bridge-tea in the Urban Room of the William Penn Hotel, Tuesday, Feb. 12, at 2 p. m., for the benefit of the Medical Benevolence Fund of The Medical Society of the State of Pennsylvania. This is the only social affair of the year for the auxiliary and its friends.

Berks.—The auxiliary held an open meeting on Jan. 14, and entertained representatives from the various organizations of women throughout the county. The topic was public health education. Sixty-six women were present. Dr. Arthur C. Morgan, Philadelphia, gave an address on "Wandering Thoughts of an Idle Fellow." There were vocal renditions, and refreshments were served.

Dauphin.—Advisers to the auxiliary for the year 1935 were appointed by the president of the Dauphin County Medical Society as follows: Chairman, Dr. George F. Gracey, and associates, Drs. Marion W. Emrick and Thomas E. Bowman. Plans are in progress for an all-day health meeting under the chairmanship of Mrs. Clarence R. Phillips, and will be held some time in May. At that time representatives from women's clubs, parent-teacher units, and civic organizations of Dauphin County will be contacted and urged to have one program on health during the year in their own organization. During the month of April we will have as our speaker Dr. George L. Laverty, who will talk on "Medicine and the State."

At the February meeting a talk on "The History of the Drama" was presented and a discussion of Broadway plays followed.

Delaware.—On Feb. 8, there was a luncheon-board meeting at the home of Mrs. Edw. H. Bedrossian.

On Feb. 14, the regular meeting was held at the Chester Hospital. The speaker was Eleanor Morton, well-known columnist and editor. Her topic was "Women in Public Life." Refreshments were served, during which time a surprise birthday cake played a prominent part in honor of the guest speaker.

On Feb. 25, a covered-dish luncheon was held at the home of Mrs. Walter E. Egbert, Chester, to raise money for the Medical Benevolence Fund. The proceeds netted \$21.

Elk.—On March 1, 9 members of the auxiliary met at the home of Mrs. A. C. Luhr of St. Marys. Tea was served.

Hygeia and dues were the important subjects discussed. Each member was asked to send at least one new subscription to *Hygeia*. Membership dues are to be \$1.50 per year.

Mrs. Luhr, having been a delegate to the Wilkes-Barre Convention, gave a report.

Erie.—In place of the regular February meeting of the auxiliary a benefit bridge and tea was held Feb. 4, at the Young Women's Christian Association building. The proceeds are to be used for buying glasses for needy school children. Nearly 250 were in attendance.

The regular meeting of the auxiliary was held at the home of Mrs. Merle Russell, March 2. After the meeting the members sewed for St. Vincent's Hospital. Tea was served.

The benefit bridge on Feb. 4 realized \$118.

Lackawanna.—The meeting of the auxiliary was held Feb. 12, at the Chamber of Commerce building; Mrs. H. M. Kraemer, president, presided.

The following committee chairmen were announced: By-laws, Mrs. Franklin F. Arndt; membership, Mrs. Jacob J. Lonsdorf, Jr.; public relations, Mrs. Ulrich P. Horger; *Hygeia*, Mrs. Robert J. Flynn; educational, Mrs. C. R. Park; publicity, Mrs. Frederic B. Davies; archives, Mrs. Robert R. Schultz; legislative, Mrs. Louis A. Milkman; program, Mrs. Frederick J. Bishop; public health, Mrs. William T. Davis; entertainment, Mrs. Francis M. Ginley; auditors, Mrs. Charles E. Thomson, Jr., and Mrs. James E. O'Toole.

Lehigh.—The February meeting of the auxiliary was a Colonial Tea, with 166 members and guests present.

Plans have been formulated for a charity card party, the proceeds to help with our pledges to the Community Chest, the Blind Fund, and the Medical Benevolence Fund, and we are looking forward to the Reci-

procuity Tea to be held during our meeting period in the month of May.

We have a paid-up membership at this time of 84 members.

Montgomery.—The auxiliary held its tenth annual birthday luncheon on Feb. 27, followed by yearly reports and the presentation of new officers for the coming year. Cards completed the afternoon.

Twenty-four new subscriptions to *Hygeia* were obtained during the year.

The newly elected officers are: President-elect, Mrs. Joseph E. Beideman, Norristown; first vice-president, Mrs. Camille J. Flotte, Norristown; secretary, Mrs. Harry C. Podall, Norristown; assistant secretary, Mrs. John B. Price, Norristown; treasurer, Mrs. Donald M. Headings, Norristown; directors, Mrs. J. Newton Hunsberger, Norristown; Mrs. Henry D. Reed, Pottstown; Mrs. Herbert B. Shearer, Worcester; Mrs. Remo Fabbri, Norristown.

The following chairmen of committees were appointed: Legislative, Mrs. N. G. Hunsberger; public relations, Mrs. Wallace W. Dill; membership, Mrs. Elmer G. Kriebel; archives, Mrs. Edgar S. Buyers; publicity, Mrs. Morris H. Jenkins; hospitality, Mrs. Ammon G. Kershner; *Hygeia*, Mrs. William G. Catlin; program, Mrs. P. W. McLaughlin.

Guest speakers for the day were Mrs. John A. Farrell, West Chester, District Councilor, and Mrs. Howard Mellor, president of the Chester County auxiliary. Six new members were added to the auxiliary, increasing the total to 84.

Schuylkill.—The meeting of the auxiliary was held in the Necho Allan Hotel, Pottsville, Feb. 12. The district councilor was the speaker. Refreshments were served.

Medical News

Births

TO DR. AND MRS. GEORGE M. HOLLEY, Hershey, a son, Feb. 19.

TO DR. AND MRS. R. S. HEISLEY, Marysville, a daughter, Jan. 19.

TO DR. AND MRS. EDWARD LYON, JR., Williamsport, a son, Edward Lyon, III, Feb. 20.

TO MRS. JOHN A. CAMPBELL and the late Dr. Campbell, Williamsport, a son, John A. Campbell, Jr., Feb. 24.

Engagements

MISS VARISSA PAYNE, Pittsburgh, and Dr. A. V. Persing, Jr., Allenwood.

MISS MARY KATHERINE EVANS, New Rochelle, N. Y., and Dr. Clarence Hogue Ingram, Jr., son of Dr. and Mrs. Clarence H. Ingram, Pittsburgh.

Marriages

MISS ALICE WILLIAMS, Conshohocken, to Dr. Herbert W. Barron, Collegeville, Feb. 23.

DR. HELEN LA RUE WILLIAMS, Allentown, to Mr. Frank Hollingsworth Hodgins, Feb. 2.

MISS HENRIETTA BRIEL, Philadelphia, to Dr. Austin C. Lynn, Philipsburg, during the early part of March.

MISS FRANCES LOUISE BALL, Indianapolis, Ind., to Dr. Henry R. Douglas, Jr., son of Dr. and Mrs. Henry R. Douglas, Harrisburg, Feb. 22, in New York City.

Deaths

ARTHUR A. BASIL, Johnstown; Jefferson Medical College, 1908; aged 54; died Feb. 25. Dr. Basil was a native of Armenia. He began the practice of medicine in Windber, Pa., in 1910 and continued there until 1915 when he located in Johnstown. Since 1916 he limited his practice to diseases of the eye, ear, nose, and throat. During the World War, Dr. Basil was located at Fort Oglethorpe, Georgia, in the Medical Corps. He was a member of his county and State medical societies and the A. M. A. He is survived by his wife.

ALBERT BERNHEIM, Philadelphia; School of Medicine of the Albert Ludwig University, Freiburg, 1890; aged 68; died at the Jewish Hospital, Feb. 15. Dr. Bernheim was a native of Baden, Germany, and was a pioneer in the field of gastro-enterology. He was graduated from the University of Louisville (Ky.) School of Medicine in 1897. He retired from practice several years ago on account of illness, but was still a member of his county and State medical societies and a Fellow of the A. M. A. He was unmarried.

PAUL W. BROSSMAN, Womelsdorf; Temple University Medical School, 1924; aged 36; died March 10, from a self-inflicted gunshot wound through the heart.

FRANK SCOTT CAMPBELL, State College; Medico-Chirurgical College of Philadelphia, 1896; aged 67; died of cardiovascular renal disease Feb. 12. He was a member of his county and State medical societies.

WILLIAM H. CLEGG, Philadelphia; University of Pennsylvania Medical School, 1891; died Jan. 30.

JOHN E. DEHOFF, York; Atlantic Medical College, Baltimore, 1897; aged 62; died Feb. 16. Dr. DeHoff was a member of his county and State medical societies and a Fellow of the A. M. A.

WILLIAM DUANE, of Devon, aged 63, died at his home from heart disease March 7, following a protracted illness. Dr. Duane was professor emeritus of biophysics at Harvard University. He was world-renowned for his researches into radioactivity. He was not a graduate of medicine. He received the degree of doctor of philosophy from the University of Berlin in 1897. He was professor of physics of the University of Colorado from 1898 to 1907. From 1907 to 1912, by invitation, he was associated with Pierre and Mme. Curie in their radium research at the University of Paris. In 1913 he was assistant professor of physics at Harvard, which institution created for him in 1917 the chair of biophysics which he held until last year when he was compelled to resign on account of ill health. For his researches in radioactivity and the roentgen ray he was awarded the John Scott Medal in 1922; the Comstock Prize of the National Academy of Science in 1922; and the Leonard Prize of the American Roentgen Society in 1923. Honorary degrees were conferred upon him by the University of Pennsylvania and the University of Colorado. He was a member of many scientific societies. He is survived by his widow, a daughter, 2 sons, one of whom is Dr. William Duane of Philadelphia, a brother, and a sister.

WALTER SAMUEL HARGETT, Penn Valley, Montgomery County; University of Pennsylvania Medical School, 1905; aged 55; died at his home, March 9. Dr. Hargett was graduated from the Franklin and Marshall College in 1901. He maintained an office in Philadelphia and limited his practice to diseases of the ear, nose, and throat. He was a member of the Philadelphia County Medical Society, his State Society, and a Fellow of the A. M. A. He is survived by his wife.

ISAAC W. HODGENS, Pottsville; Jefferson Medical College, 1894; aged 64; died March 8, following a heart attack.

MRS. NELL KISTLER, wife of Dr. Walter W. Kistler, Wilkes-Barre, died March 9, in a hospital in Easton,

Pa., from injuries received in a crash between an automobile and a train at Stockertown.

RICHARD W. LANG, Pittsburgh; University of Pittsburgh School of Medicine, 1921; aged 40; died March 19. Dr. Lang was a member of his county and State medical societies and a Fellow of the A. M. A.

JOHN H. MARTIN, Greenville; Chicago Homeopathic Medical College, 1885; aged 79; died March 2. Dr. Martin was a member of his county and State medical societies and the A. M. A.

JOHN R. McCURDY, Pittsburgh; University of Pennsylvania School of Medicine, 1900; aged 61; died March 9. Dr. McCurdy devoted his practice exclusively to anesthesia, and was a member of the Associated Anesthetists of the United States and Canada. He was a member of his county and State societies and a Fellow of the A. M. A.

GEORGE IRVINE MCKELWAY, Westfield, N. J.; University of Pennsylvania Medical School, 1889; aged 85; died Mar. 8. Dr. McKelway formerly practiced in Philadelphia but retired some years ago. He was a graduate also of the Jefferson Medical College, 1893, and was one of the oldest living graduates of the Philadelphia College of Pharmacy. At one time he was obstetrician and gynecologist to the Philadelphia General Hospital.

HARRY SELTZER MEILY, Carlisle; Hahnemann Medical College and Hospital, 1898; aged 79; died Feb. 24, from angina pectoris. Dr. Meily was a member of his county and State medical societies and the A. M. A. A widow and 2 sons survive.

OSCAR A. NEWMAN, Harrisburg; University of Pennsylvania School of Medicine, 1897; aged 61; died Feb. 23. Dr. Newman was born in Denver, Pa., Aug. 19, 1874. He has always practiced in Harrisburg. In 1899 he became a member of the Dauphin County Medical Society, holding membership also in the Harrisburg Academy of Medicine and in the State Medical Society. He was a Fellow of the A. M. A.

John A. Reidy, Albuquerque, N. M.; Jefferson Medical College, 1903; aged 62; died Feb. 23, at the Mayo Clinic, Rochester, Minn. Dr. Reidy was born in Mayville, N. Y., Mar. 15, 1872. His parents moved to Oil City, Pa., when he was age 3 and upon graduation he began the practice of medicine in that city. He had previously graduated in dentistry which profession he practiced for a few years. Twenty-nine years ago he went to Albuquerque where he has since been located. He was a member of his county and State medical societies, a Fellow of the A. M. A., and a Fellow of the American College of Surgeons. He is survived by his widow and 3 sons.

ARTHUR EUGENE ROOSE, Forrest Hills, Wilmerding; Jefferson Medical College, 1895; aged 66; died Feb. 22. He was a member of his county and State medical societies and a Fellow of the A. M. A.

THOMAS B. SEMANS, Uniontown; University of Pennsylvania School of Medicine, 1920; aged 40; died recently. Dr. Semans was a member of his county and State medical societies and a Fellow of the A. M. A.

DAVID EDWIN SLOAN, Charleroi; Western Pennsylvania Medical College, Pittsburgh, 1893; aged 70; died Jan. 8, of myocarditis and arteriosclerosis. Dr. Sloan was on the staff of the Charleroi-Monessen Hospital, Lock No. 4.

JOHN HAMILTON SMALL, Montclair, N. J.; Medico-Chirurgical College of Philadelphia, 1902; aged 69; died Feb. 20, in the Memorial Hospital, Miami, Fla., from diabetes. Dr. Small had retired from practice. He was at one time professor of bacteriology at the Medico-Chirurgical College of Philadelphia and subsequently became professor of bacteriology at the Graduate School of the University of Pennsylvania, retiring

in 1919. He was a twin brother of Dr. J. Frank Small, city director of public health, York, Pa. Dr. Small is survived by his widow, a daughter, his twin brother, and a sister.

MRS. ELISE J. C. BOXHAMMER STOTLER, Wilksburg, widow of the late Dr. Fulton R. Stotler, died Feb. 17. Mrs. Stotler was born in Munich, Germany. She was formerly a teacher of languages and active in educational work. A daughter, Miss Ilka M. Stotler, survives.

MRS. EMMA J. TIBBINS, Beech Creek, the widow of the late Dr. Joseph E. Tibbins, died Feb. 16. She was a charter member of the Clinton County Auxiliary.

CARL KAISER WAGENER; University of Pittsburgh School of Medicine, 1910; aged 51; died Feb. 26, from heart disease. On Feb. 25, while addressing a parent-teachers' association in Turtle Creek, he suffered a physical collapse which was followed by death in a few hours in a near-by hospital.

Dr. Wagener was on the staffs of the South Side, Children's, and Columbia Hospitals, and was also an instructor in pediatrics in the University of Pittsburgh Medical School. He was a member of his county and State medical societies, a Fellow of the A. M. A., a member of the American Academy of Pediatrics and the Pittsburgh Academy of Medicine. For 10 years he labored as chairman of the Milk Commission of the Allegheny County Medical Society. He was tireless in his endeavors in the cause of correct infant feeding and child health improvement.

Dr. Wagener was a member of the Veterans of Foreign Wars, being Sergeant in David I. Rankin Post 234. He is survived by his parents.

EDWARD KENNETH WOLFF, Media; Temple University Medical School, 1910; aged 39; died March 1. He is survived by his wife, 2 sons, and a daughter.

HIRAM ELMORE ZERNER, New Castle; Western Pennsylvania Medical College, Pittsburgh, 1899; aged 62; died, Jan. 14, following a prostatic operation. Dr. Zerner was a Fellow of the American College of Surgeons and a past president of the Lawrence County Medical Society.

GEORGE CLAYTON ZIMMERMAN, Philadelphia; Hahnemann Medical College and Hospital, 1933; aged 34; died at St. Luke's and Children's Hospital, Feb. 21, following an operation. His widow survives.

Miscellaneous

DR. ROBERT S. HEFFNER, Pottstown, lost his house and valuable antiques by fire on Feb. 6.

THE THIRTY-FIRST ANNUAL MEETING of the National Tuberculosis Association will be held at Saranac Lake, New York, June 24 to 27, 1935.

THE 64TH ANNUAL MEETING of the American Public Health Association will be held in Milwaukee, Wisconsin, Oct. 7 to 10, 1935. This organization is a society of 4500 professional public health workers whose annual sessions review developments in health protection and promotion and outline plans and policies for future advances.

ST. MARY'S HOSPITAL FOR CHILDREN, INC., New York City, closed its doors on Jan. 1, 1935, the second New York hospital to close within a month. It was founded in 1870. The other was the New York Nursery and Child's Hospital, founded in 1823. Both of these institutions were closed due to a lack of funds.

A DOG HAS THE same right to cross the street as a human being and is entitled to equal protection from car drivers, Judge Edwin O. Lewis of Common Pleas Court, Philadelphia, recently declared from the bench in connection with a case involving a motorist who struck a dog out walking with his master. The dog subsequently died, and the motorist appealed a fine im-

posed by a magistrate, facts in the case being presented by the supervising agent of the Pennsylvania Society for the Prevention of Cruelty to Animals.—*The Car.*

MR. WILFRED W. FRY, president of N. W. Ayer & Son, Inc., was elected to the presidency of the Board of Trustees, Jefferson Medical College and Hospital, to succeed the late Alba B. Johnson, who had served as a member of the board for more than 30 years and as president since May, 1926. The new president was elected to the Board of Trustees in 1931 and has been active in promoting the welfare of the institution throughout his term of office.

THE WILLIAM POTTER MEMORIAL LECTURE of the Jefferson Medical College was delivered by C. E. A. Winslow, Dr. P.H., professor of public health, Yale University School of Medicine, March 29. The subject was "A Physician of Two Centuries Ago: Richard Mead and His Contributions to Epidemiology." There was a special exhibit of first and early editions of the works of Richard Mead displayed in the College Library during the week in which the lecture was given.

THE OHIO-MICHIGAN-INDIANA-ONTARIO-NEW YORK-PENNSYLVANIA SECTIONAL MEETING of the American College of Surgeons was held in Cleveland, April 4-5, with headquarters at the Hotel Statler. Operative clinics were conducted in the Cleveland hospitals. Scientific sessions were held, and a hospital standardization program consisting of addresses, round-table conferences, discussions, demonstrations, and visits to local hospitals. A Community Health Meeting was held on the evening of April 5 to which the public was invited.

COURSES FOR THE TRAINING of teachers and supervisors of sight-saving classes will be offered at the 1935 summer sessions of: Western Reserve University, Cleveland, Ohio, June 24 to August 2; State Teachers College, Buffalo, N. Y., July 1 to August 9; Teachers College, Columbia University, New York City, July 8 to August 16. Details regarding the courses may be obtained from the university or college offering the Course.

AN INTENSIVE DEMONSTRATION in the latest methods in the diagnosis and treatment of heart disease will be held again this year by the Philadelphia Heart Association, from May 21 to May 24 inclusive.

Pathologic exhibits, electrocardiographic exhibits, and exhibits of the latest apparatus used in diagnosing and treating heart disease will be shown in conjunction with this demonstration.

A registration fee of \$5.00 will be charged. Anyone wishing a program of this demonstration, or wishing to register, please notify Miss Helen E. Heikes, Philadelphia Heart Association, 311 S. Juniper St., Philadelphia, Pa.

A TESTIMONIAL DINNER was given by the Board of Managers and Staff of the Reading Hospital, Reading, in honor of Dr. Irvin H. Hartman and Dr. Christopher H. Shearer, and in memory of the late Dr. Ira G. Shoemaker, at the Berkshire Country Club, March 20. Dr. George W. Overholser of Reading was toastmaster. Responses were made by Drs. Robert M. Alexander, Howard V. Miller, Charles P. Henry, Frank G. Runyon, and Mr. J. Heber Parker, president of the board of trustees of the Reading Hospital, all of Reading, and Drs. W. Wayne Babcock, Arthur C. Morgan, and Alfred Stengel, all of Philadelphia. The dinner was given in tribute to the retirement of the guests of honor from service on the active staff of the Reading Hospital.

DR. CHARLES H. FRAZIER, of Philadelphia, is honored by the February issue of the *Annals of Surgery*, the official publication of the American Surgical Association, which is devoted entirely to him.

Contributions are made by 80 surgeons from all sections of the country and take up 650 pages. They are preceded by an appreciation of Dr. Frazier by Dr.

Alfred Stengel, vice-president of the University of Pennsylvania, in charge of medical affairs. Dr. Frazier holds the John Rhea Barton professorship of surgery at the University of Pennsylvania School of Medicine, as well as a professorship of neurosurgery in the Graduate School of Medicine. He was dean of the medical school from 1901 to 1910, and has been president of the Public Charities Association of Pennsylvania since its founding in 1913.

THE WOMAN'S MEDICAL COLLEGE OF PENNSYLVANIA celebrated, on March 9, the eighty-fifth anniversary of the founding of the college. The occasion also recognized the completion of 25 years of service on the faculty of the college of Dean Martha Tracy. A portrait of Dean Tracy was presented to the institution by a group of alumnae. Dr. Ellen C. Potter, class of 1903, now Medical Director of Institutions and Agencies of the New Jersey State Department of Welfare, presided at the ceremonies and made the presentation address. In the absence of the president of the college, Vice-President Walter L. Sheppard, accepted the portrait on behalf of the institution. At the close of the program, Dr. Helen Ingleby, professor of pathology, representing trustees, faculty, students, nurses, and friends, presented Dean Tracy with an automobile.

State Institutions Must End Fire Hazard

An estimated \$1,000,000 worth of fire hazard elimination repairs to state schools and hospitals was ordered March 15 by Edward N. Jones, Secretary of Labor and Industry, at Harrisburg.

The secretary's order affects the 14 teachers' colleges and virtually all of the state-owned schools and hospitals. The state has certain minimum specifications to prevent disaster in public buildings, particularly schools and hospitals, and these must be complied with or the buildings will be closed. It is rather ridiculous for the Commonwealth to press safety regulations on other public buildings while fire hazards in the state-owned buildings are ignored. Many buildings affected by the order are old, badly in need of emergency fire escapes, emergency lighting and fire alarm systems, fireproofing of windows and other inflammable areas, modernization of stairways, and relocation of auditoriums now situated in upper stories.

The Departments of Public Instruction and Welfare, which have jurisdiction over the buildings, were notified that the schools and hospitals must be made to conform to minimum fire standards within 2 years.

Increase in Drunkenness

The Board of Temperance, Prohibition and Morals of the Methodist Episcopal Church, as a result of a survey in 226 cities, states as follows: There were 26 per cent more arrests for drunkenness in the first year of repeal over the last year of prohibition; a more rapid increase in drunkenness among women than among men; a 5 per cent increase in automobile accidents and an almost 10 per cent rise in motor fatalities in 1934 over 1933. The board states that where hard liquors are dispensed through a state monopoly drunkenness is not increasing so rapidly as in the licensed states. It would appear that the worst showing for drunkenness was noted at Berkeley, Calif., whereas Somersworth, N. H., had a decrease. The board further states, as one would naturally expect, the accidents due to drink and all the consequential injury of alcoholism are in direct proportion to the amount of liquor consumed. This amount has increased and is increasing; consequently, social problems enlarge and become more troublesome in their aspects. Particularly disturbing is the increase in drunkenness among women. In Washington, D. C., there was an increase of 25.5 per cent in arrests for intoxication in 1934 over 1933. The arrests of women on the charge of intoxication for the first 6 months of 1934, as compared with the first 6 months of 1933, show an increase of 38.38 per cent. Drunken driving increased 15.74 per cent.



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Book Reviews

From a reviewer we expect information and advice which will guide us safely and to our profit, warning us of the poor, the mediocre, the commonplace, and inviting our attention to merit.

MANUAL OF THE DISEASES OF THE EYE FOR STUDENTS AND GENERAL PRACTITIONERS. Charles H. May, M.D., director and attending surgeon, eye service, Bellevue Hospital, New York, 1916 to 1926; consulting ophthalmologist to the Mt. Sinai Hospital, to Bellevue Hospital, to the French Hospital, New York, and to the Monmouth Memorial Hospital. Fourteenth edition, revised with 376 original illustrations including 2 plates with 78 colored figures. William Wood and Company, Baltimore. Price, \$4 net.

The fourteenth edition of this excellent manual justifies the continued popularity it enjoys. The illustrations and the colored figures and plates are a great help to students and general practitioners in visualizing and clarifying the text. Dr. May is to be congratulated on the many revisions and additions which have kept the manual right up-to-date and yet such a convenient size.

DAVIS APPLIED ANATOMY. George P. Muller, M.D., professor of clinical surgery, Graduate School of Medicine, University of Pennsylvania. Ninth edition, reset, reillustrated, and completely revised; 671 illustrations, mostly from original dissections and many in color. Philadelphia, London, and Montreal. J. B. Lippincott Company.

This is the Ninth Edition of this eminently satisfactory textbook on applied anatomy. No library is complete without it. The text aims to teach surgical principles from the standpoint of applied anatomy—an all important and essential feature.

The latest revision has been completely reset to iron out the many insertions that were necessary in the various editions.

HUGHES' PRACTICE OF MEDICINE. Revised and edited by Burgess Gordon, M.D., associate professor of medicine, Jefferson Medical College. Philadelphia: P. Blakiston's Son & Co., Inc., 1012 Walnut Street. Price, \$5 net.

This book has always been one of the most satisfactory of its kind; and this, the fifteenth edition, very ably edited, will prove of inestimable value to every practitioner.

DR. COLWELL'S DAILY LOG FOR PHYSICIANS. A brief, simple, accurate record for the physician's desk. Published by the Colwell Publishing Company, Champaign, Ill. Price, \$6.

This compact financial record system is recommended to any physician who desires to maintain an accurate record, and one that will prove helpful in many ways.

A TEXTBOOK OF PATHOLOGY FOR NURSES. Coleman B. Rabin, B.S., M.D., Lecturer in Pathology in the Mount Sinai Hospital School of Nursing; Assistant in Morbid Anatomy, Adjunct Physician, and Assistant Radiologist to the Mount Sinai Hospital, New York City. 243 pages with 61 illustrations. Philadelphia and London: W. B. Saunders Company. 1934. Cloth, \$1.75 net.

An efficient treatise based upon the course in pathology given to the students of the Mount Sinai Hospital School of Nursing, New York City.

AIDS TO PSYCHIATRY. W. S. Dawson, M.A., M.D. (Oxon.), F.R.C.P. (Lond.), professor of psychiatry, University of Sydney. Baltimore: William Wood & Company, 1934. Price, \$1.50.

This is the third edition of this small volume, which ably condenses the subject matter.



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Advances in Ovarian Therapy

A gynecologist, whose name is known from coast to coast, recently commented in the *Journal of the American Medical Association* (Feb. 23) about the cost of ovarian therapy. "It is greatly regretted," he wrote, "that the American products have not been available at prices that justify their preference or at least their being on a parity with the imported material."

Physicians, who have read this statement, will be interested in the announcement from the Squibb Laboratories that the potency of amniotin—a physiologically tested preparation of the ovarian follicular hormone—has been increased 3-fold and the cost per unit has been reduced to about one-tenth of its former price. For hypodermic administration, amniotin in oil is now distributed in 1 c.c. size ampules, containing 8000 and 2000 international units per c.c.

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THE PENNSYLVANIA MEDICAL JOURNAL

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No. 8

THE TREATMENT OF BLADDER TUMORS *

GEORGE GILBERT SMITH, M.D., BOSTON, MASS.

The subject of bladder tumors has been so frequently and so thoroughly discussed that the presentation of anything original is difficult, if not impossible. It seems best to offer a critical analysis of a series of 150 cases occurring in my own practice, with a discussion of those methods which have succeeded and a criticism of those which have resulted in failure. In addition an attempt will be made to answer the following questions:

1. Do benign papillomata undergo malignant degeneration?

2. What relation, if any, exists between the age of the patient and the type of tumor found in the bladder?

3. Can a single, pedunculated tumor be controlled adequately by removal of the growth and coagulation of its base, or should the entire segment of bladder wall from which it arises be resected?

4. What is the value of radium in the treatment of vesical neoplasm? Barringer and Keyes believe whole-heartedly in its efficiency; McCarthy, on the other hand, says that he and his associates have given up its use altogether.

5. Can the tendency to tumor formation eventually be eradicated in multiple papillary tumors of the recurring type, or will the tumors that develop later show an increasing degree of malignancy? If the latter is true, is not total cystectomy the logical procedure in such cases? When should it be done?

In certain diseases, the treatment may be said to begin with their prevention. This applies to malignancy in regions such as the cervix uteri, in which the removal of precancerous lesions may prevent the development of cancer. Tumor of the bladder presents no such opportunity. Leu-

koplakia is believed to undergo malignant degeneration, but in the few cases that I have seen this change has not occurred during the period of observation. Bryant, in his excellent paper on "Tumors of the Bladder," refers to the possible relation between squamous cell cancer and a pre-existing leukoplakia. The development of bladder tumor in aniline dye workers, so ably described by Ferguson, gives the only information available regarding the pathogenesis of these tumors. The observations of Ferguson and of Anderson suggest that the tumor originates in the basal layers of the epithelium, about the terminal blood vessels. Ferguson¹ believes that "some bladder tumors may originate as a result of certain carcinogenic agents circulating in the blood and thereby affecting the entire bladder mucosa." In support of this theory, he points to the high incidence of multiple tumors (29.2 per cent) in the Carcinoma Registry series of 902 cases.

Apparently there exists not only a local susceptibility to cancer but a general susceptibility as well. Warren and Gates² have collected from the literature 1259 cases of multiple malignancy, including 40 cases of their own (3.7 per cent in 1078 cancer necropsies). They are forced to the conclusion that "an individual with one cancer is more apt to develop a second cancer than he would be expected to do by chance alone. This implies a definite predisposition or susceptibility to cancer in certain persons, or exposure to some influence favoring the development of cancer."

This predisposition to tumor formation should be borne in mind in connection with growths in the bladder. There is a type of case in which tumors continue to appear in different parts of the bladder, sometimes developing years after the original tumor was destroyed. There is no reason to believe that these later tumors are in

* Read before the Section on Urology of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 2, 1934.

any way related to the primary tumor except in so far as they may have a common cause, whatever that may be.

The theory that previous chronic inflammation is a necessary precursor of cancer, first proposed by Billroth and partially accepted by Ewing, does not seem to be corroborated by fact. A very large proportion of the patients with early bladder tumor not only have no cystitis but give no history of ever having had such an attack.

The series upon which this paper is based consists of 100 cases in which the data and end results are fairly complete, and 50 others with which contact was too brief to allow the collection of sufficient facts to warrant a complete study. There were 94 men and 56 women, their ages ranging from 29 to 84 years. The incidence of tumor by decades in this series is indicated in Table I.

TABLE I
AGE INCIDENCE

Age	Number of Cases
20 to 29	1
30 to 39	6
40 to 49	27
50 to 59	45
60 to 69	45
70 to 79	20
80 to 89	3
Unknown	3
	150

The incidence among females in this series (37.3 per cent) is relatively high compared with that in the large series reported by the Carcinoma Registry (23.75 per cent). It is also much higher than in the series of 150 cases collected from the Massachusetts General Hospital by Smith and Mintz (9.3 per cent).

As shown in Table II, the average age of the papillary group was 52.8 years, with 41 per cent of the patients under age 50. The average age of the infiltrating group was 61.2 years, with only 15 per cent below age 50. These figures strongly suggest that the more malignant tumors develop in patients whose average age is somewhat greater (8 to 9 years) than the age of patients with the less malignant tumors. In spite of this general rule the youngest patient, a man, age 29, had multiple sessile carcinomas from which he died within 3 years. Another possible interpretation of this observation is that the tumors in the older group had existed for a number of years and during that period of development had become malignant.

TABLE II

Group	Number of cases	Average age	Under 50 years
Papillary	41	52.8 years	41 per cent
Infiltrating	59	61.2 years	15 per cent

As to the question whether papillomata undergo malignant degeneration, this series offers several suggestive although not positive examples.

CASE REPORTS

1. A man, age 51, with a history of hematuria for 2 years, showed on cystoscopy a single, solid, pedunculated tumor 3 cm. in diameter on the right lateral wall. A very small bud was seen on the left lateral wall. A cystotomy was done (Jan. 8, 1924) and the tumors removed with the actual cautery. The pathologic report indicated that the tumor was a papilloma. On June 23, 1924, a small recurrence in the dome of the bladder was destroyed by fulguration. The patient died Sept. 5, 1925, the cause of death being given as cancer of the bladder.

2. A man, age 68, with hematuria for 2½ years, showed on cystoscopy multiple papillary tumors, the largest 3 cm. in diameter on the right lateral wall and bladder base. Cystotomy was done, the tumors removed by diathermy, and their bases coagulated. One pathologist reported the growth to be papilloma. Another pathologist reported it to be malignant papilloma. Recurrences developed and the patient died of cancer of the bladder somewhat less than 2 years after the operation.

3. A man, age 29, had a pedunculated tumor 3 cm. in diameter near the left ureter, and numerous small sessile growths in the bladder base. The bladder was incised in May, 1918, the largest growth removed with the cautery, and the others cauterized. The report on the largest tumor indicated that it was a papilloma. Three and one-half years later the patient died of cancer of the bladder. Cystoscopy 3 months before death showed the bladder to be studded with tumors, but there was no necropsy.

In addition to these 3 cases, there were 2 in which typical papillomata were destroyed by electrocoagulation; in one, a carcinoma, so proven by pathologic examination, developed 9 years later; in the other, recurrences (or new tumors) appeared 7 years later and were reported to be epidermoid carcinoma.

Unfortunately, in none of these cases is the

TABLE III

MORTALITY OF PATIENTS WITH PAPILLARY TUMORS

Type of tumor	Number living	Number dead	Number of deaths from cancer	Percentage of cancer deaths
Single ...	22	5	2	8 per cent
Multiple ..	10	4	3	21 per cent
Total	32	9	5	

evidence of metamorphosis indisputable. In the case of those patients dying of apparent cancer, pathologic evidence that the growth was malignant is lacking although cystoscopically it was so in 2 cases. It is possible for patients to die of extensive papillomatosis of the bladder, the factors of obstruction, infection, and hemorrhage being in themselves capable of causing death. The Carcinoma Registry report contains the protocol of a case in which a benign papilloma was destroyed in 1919; 11 years later 3 other tumors were found and were shown to be infiltrating papillary carcinoma, Grade II. As pointed out in this report, such apparent recurrences are really new tumors. Bryant reports a similar case, and Buerger, in a series of 113 tumors carefully studied from the pathologic point of view, found 13 papillomata which recurred as carcinomas and 30 to 36 per cent of carcinomas which were preceded by papillomata. Although it is impossible to state definitely that a benign papilloma will degenerate into cancer, there seems to be good reason to believe that such a metamorphosis does occur. The very long history of hematuria, which sometimes lasts for 15 years, together with the finding of a definitely malignant tumor of the bladder, is presumptive evidence that such degeneration occurs. Buerger points out that benign and malignant papillomata may occur at the same time in the same bladder. With this statement our experience is in accord.

The liability of the different forms of tumor to metastasize is of interest to the surgeon. According to the figures presented by Smith and Mintz in a report of 150 cases of bladder tumors from the Massachusetts General Hospital there is no definite relationship between the grade of malignancy of a tumor and its liability to metastasize. Squamous cell cancers, however, metastasize twice as often as do papillary cancers. The tendency to recur, according to the Carcinoma Registry report, is also unrelated to the grade of malignancy, but it is pointed out that multiple tumors are more likely to recur than are single tumors (50.5 per cent as against 44.7 per cent).

TABLE IV

RECURRENCES IN PATIENTS WITH PAPILLARY TUMORS

Type of tumor	Number of cases	Number with recurrences	Number without recurrences
Single	24	9	15
Multiple	10	7	3
Total	34	16	18

TREATMENT

As a foundation for the discussion of the treatment of bladder tumors, the methods employed and the results obtained in this series of 100 cases will be summarized. These cases have been separated into 2 groups—papillary and infiltrating. To the pathologist there may seem little justification for this division, for there is no true distinction between a papillary carcinoma and an infiltrating epidermoid carcinoma; the difference is probably due to the age and degree of malignancy of the tumor. To the surgeon, on the other hand, the presence or absence of invasion of the bladder wall is all-important.

In the group of papillary tumors there were 41 cases; 27 of these were single and 14 multiple. Among the single tumors were 3 diagnosed as papilloma and 6 as papillary or epidermoid carcinoma, whereas 18 were without pathologic diagnosis. The reason for this last group is that all these tumors were destroyed by electrocoagulation through the cystoscope. Little information of practical value is to be gained by biopsy of bladder tumors.

Of the 27 single tumors, a number of which were in all probability papillary cancers, 6 were removed through the open bladder. In one of these, an epidermoid carcinoma rising from the bladder orifice, 12 gold seeds of 2 millicuries each of radon were implanted. This patient, after a very unhappy year of strangury and frequency, recovered his vesical equanimity, was free of recurrence when cystoscopy was performed 2 years after operation, and is appar-

TABLE V

MORTALITY OF PATIENTS WITH INFILTRATING TUMORS

Method of treatment	Number of cases	Living	Died postoperatively	Died of cancer	Died of other causes	Alive without recurrence
Radium through cystoscope	2	2	0	0	0	2
Cystotomy and radium	28	5	10	11	2	5
Cystotomy and coagulation	4	1	1	2	0	0
Resection	13	6	3	4	0	6
Cystectomy	10	3	2	4	1	3
	57	17	16	21	3	16(28%)

ently well to-day. Of the other 5 patients, one died of bladder cancer in 9 months; 4 are living 3, 6, 8, and 9 years respectively after operation. Three have had no recurrence, and the fourth has not been examined.

Twenty-one cases of single papillary tumor were treated cystoscopically by electrocoagulation; in 3 of these, one or 2 gold seeds were implanted in the bladder wall at the tumor base. These 3 patients are living and without recur-

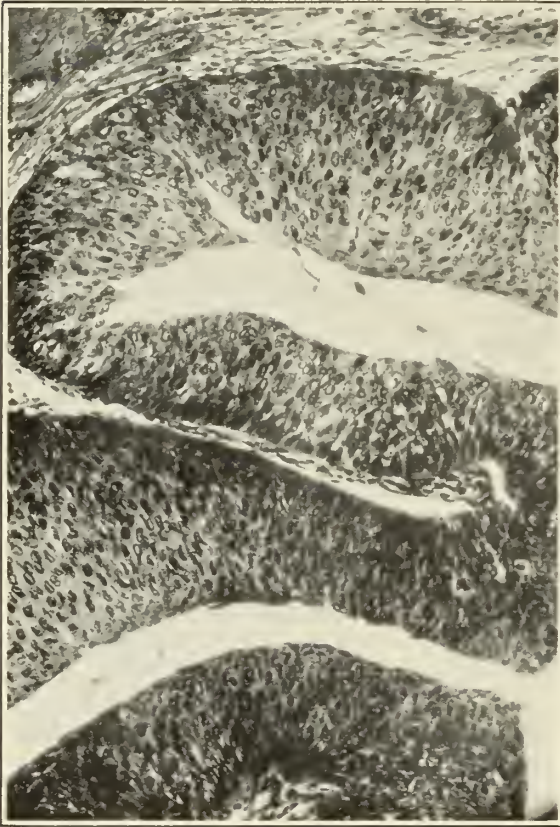


FIG. 1. High power. Benign papilloma of the bladder.

rence 7 months, 10 months, and 2 years respectively after treatment. Eighteen cases were treated by cystoscopic electrocoagulation alone; 4 of these patients are dead, and 14 living. One died of cardiac failure 3 days after operation (he had spinal anesthesia), one of cardiac disease 3 years after, one 4 years later (cause unknown), and one 14 years later of cancer of the bladder. In this last case, recurrences or new tumors appeared 9 years after the destruction of the first tumor. Of the 14 patients now living, 7 have been free of recurrence for periods of 2, 3, 4, 6, 9, 10, and 12 years respectively. Seven have shown recurrences, chiefly in the first 2 or 3 years after destruction of the original tumor, but are still alive after 4, 7, 10, 10, 14, 15, and 15 years respectively. Six of these are now free

of growth, but one is developing small, velvety patches here and there in the bladder faster than they can be destroyed. One had a recurrence after 11 years, another after 7 years. These late recurrences (if such they are) prove the advisability of repeated cystoscopic examination after the original tumor has been destroyed; these examinations should be continued, at intervals of perhaps 6 months, for at least 10 years.

Multiple papillary tumors occurred in 14 cases; 4 were papilloma, 5 papillary carcinoma, one a squamous cell carcinoma, and 4 were without pathologic diagnosis. Eleven were treated through the open bladder, 3 by coagulation plus radium, 8 by electrocoagulation alone. Of the 3 treated with radium, one died in 2 years of cancer of the bladder, one has lived 6 years without recurrence, and one 10 years with but one recurrence 6 months after operation. Of the 8 treated by electrocoagulation alone, one (pathologic report—papilloma) died after 20 months of bladder cancer, another after 2 years of the same disease. Two have lived 4 and 5 years respectively without recurrence; 3 have lived 3, 4, and 7 years respectively with recurrence during the first 2 years. The eighth patient, whose first tumor was removed 16 years ago, developed repeated recurrences which pathologically were papillomata. As a result of repeated coagulations and radium treatments, the bladder became a contracted, fibrous cavity with a capacity of but 2 ounces. Repeated hemorrhages necessitated radical treatment; in the belief that the wall had become infiltrated with cancer, I performed a cystectomy and ureterostomy. The patient has done well and is now working full-time as a salesman. Examination of his bladder, however, showed no evidence of malignant disease. Three cases of multiple papillary tumor were treated cystoscopically, 2 by coagulation plus radium, one by coagulation alone. One died of apoplexy after 2 years; 2 are living after 5 and 9 years respectively. All 3 have had a number of recurrences, but these have been destroyed by repeated cystoscopic treatments.

A consideration of this group of papillary tumors brings to light several impressive facts:

1. The end result bears no demonstrable relation to the presence or absence of pathologic malignancy of the tumor.

2. Prognosis with multiple tumors is definitely worse than with single ones. Cancer deaths among the single tumor group were 8 per cent as contrasted with 21 per cent in the multiple group. Obstinate recurring tumors occurred in but one case in each group.

3. The late recurrence of tumors, some ap-

pearing after 7, 8, or even 9 years of freedom from growth.

4. The apparent metamorphosis of benign into malignant tumors, and the presence of both in the same bladder at the same time.

As regards the cause of failures in this series, one case of local recurrence later resulted in death. It is possible that the use of radium about the pedicle of the tumor might have prevented this recurrence. In only 2 of the cases with fatal terminations does it seem probable that total cystectomy might have been advisable. Two other patients who might have been suitable for this operation so far as the bladder was concerned were not in good enough general condition to warrant the attempt.

The group of infiltrating tumors consisted of 59 cases. These will be discussed in groups according to the method of treatment employed.

Implantation of Radium Seeds through the Cystoscope (2 cases).—Both of these were ulcerated, sessile single growths. Both appear to be controlled, one 8 months after treatment, one 15 months. As no other method of treatment seemed advisable, these results, even if temporary, are highly satisfactory.

Implantation of Radium through the Open Bladder (28 cases).—Five patients appear to have been cured, having lived without recurrence for 3, 5, 6, 8, and 15 years respectively. One was a case of multiple tumors (2) on the trigone and bladder neck, both of which were destroyed in situ by coagulation and their bases treated by means of 15 seeds of radon. This patient died 8 years later; his physician reports that he did not die of cancer of the bladder. The other cases were reported as papillary carcinoma, carcinoma, epidermoid carcinoma Grade III, and colloid carcinoma. One required nephrectomy for pyonephrosis. Another case of squamous cell carcinoma Grade IV was followed carefully for 5 years, and was reported as "A Case Apparently Well 5 Years After Radium Treatment." Ten years after operation this patient presented another growth in the same segment of the bladder and died one year later. Ten patients died within 2 months of operation, most of them from urinary sepsis. Eight others died within a year from cancer or urinary sepsis. One died in 20 months of unknown cause, one in 2 years of cerebral thrombosis, having in the meantime had his bladder removed for recurrent cancer, and 2 in 3½ years as a result of bladder cancer. Twenty-one per cent of this group may be said to have been materially benefited, perhaps cured, by the implantation of radium into a malignant, infiltrating growth.

Cystotomy plus Electrocoagulation (4 cases).—Three of these patients are dead. One lived 2 months and died of pyelonephritis. Two died of cancer of the bladder, in 6 months and 3 years respectively. The fourth is living 5 years after operation, but the growth has evidently extended beyond the bladder into the pelvic tissues.

Resection of the Bladder Wall (13 cases).—Seven of these patients have died; 3 were postoperative deaths as follows: (1) Three days after operation, probably of cardiac failure or embolus (left ureter having been ligated); (2) 12 days after operation, of uremia (right ureter having been ligated); (3) 2 months after operation, of pulmonary embolus. Four died of cancer 6 months, 9 months, 2½ years, and 3½ years respectively after operation. Six patients have lived for 5 months, one year, 5 years, 5 years, 8 years, and 10 years respectively. On 5 of these cystoscopy has been done, but no recurrence was found; the sixth is apparently well, but cystoscopy has not been performed. There are 4 5-year cures (31 per cent), with a possibility of 2 more.

Total Cystectomy (10 cases).—In 6 of these the ureters were transplanted to the bowel; in 3, to the skin. In one case bilateral nephrostomy was done. Seven of these patients have died, 2 of postoperative complications, one of cerebral thrombosis 2½ months after operation, one after 5 months of recurrence in the pelvis and pubic bone, one after 8 months of metastasis to the spine, one in one year of renal sepsis (the patient with the nephrostomy), one in one year of un-



FIG. 2. Low power. Papillary carcinoma, Grade I, of bladder.



FIG. 3. Low power. Showing submucosal extension of a papillary carcinoma of the bladder beneath normal adjacent epithelium.

known cause. Three are living and apparently well—one 18 months and another 7 months after cystectomy and ureterostomy, the third 8 months after cystectomy and uretero-enterostomy.

In 5 other patients diversion of the urinary stream was accomplished, in 3 simply as a palliative measure. Two were ureterostomies; each one lived 5 months. Three were uretero-enterostomies; they lived but 5 days, 2 weeks, and 6 weeks respectively.

In the entire group of 59 cases of infiltrating cancers, 6 patients died as a result of local recurrence and conceivably might have been saved by cystectomy. All of these cases were treated by cystotomy and radium implantation.

The selection of the best method of treatment for these infiltrating cancers is a difficult problem. In my experience resection has given the highest percentage of apparent cures, and the operative mortality has not been too discouraging. Pulmonary embolism is a risk that attends any operation and certainly is not absent in cases treated by radiation. The death from uremia should have been avoided by a more careful study of the separate renal functions. In this case necropsy showed advanced bilateral vascular nephritis. It is best to reserve resection for

single infiltrating cancers of the fundus and lateral walls; if one ureter is involved, resection and ligation or reimplantation of the ureter may be done provided the other kidney shows an approximately normal function. Intravenous pyelograms before operation will give adequate information on this point. In either case nephrectomy may be necessary later. Implantation of radium in a tumor which surrounds a ureter or which is located on the trigone has proved in my hands to be a lethal procedure. Pyelonephritis from ascending infection and ureteral obstruction is almost sure to develop, and is frequently fatal. In patients whose general condition does not warrant resection the implantation of radium appears to be the best alternative, but we must realize that all cancers are not radiosensitive and that an infiltrating cancer over 4 or 5 cm. in diameter has probably already extended beyond the bladder. In such cases some purely palliative operation, or none at all, is indicated.

Total cystectomy seems to be particularly appropriate for extensive growths of the superficial type in which other methods have failed or seem likely to fail. It is also indicated in certain cases in which the bladder neck is involved. Whether cystectomy can be done without prohibitive risk to the patient is the question. The removal of the bladder is in itself not particularly difficult or dangerous. I have removed the bladder in 21 cases; in 11 of these ureterostomy was done at the same time, in 9 a preceding uretero-enterostomy had been done, in one a nephrostomy. Thirteen patients recovered from the operation, and 6 of these are now apparently well. Five have died of recurrence of the cancer, one of cerebral thrombosis, and one of renal sepsis. Of the patients upon whom cystectomy and ureterostomy were performed, one died of shock, one of delirium tremens, and 2 of renal sepsis—all in the hospital.

In the group subjected to cystectomy plus uretero-enterostomy death was due in nearly every instance to renal sepsis or to failure of the ureteral anastomosis to heal. Two patients upon whom cystectomy and ureteral transplantation to the bowel were performed in one operation died of shock.

The solution of this problem depends upon successful diversion of the urinary stream. I have been struggling with the problem for the past 15 years and do not yet know the answer. I have tried the various technics of uretero-enterostomy as suggested by Coffey, with the exception of his last method of delayed stoma formation. Forty-two ureters in 28 patients have been transplanted; 29 transplantations have been successful and 13 have failed. The

mortality was 53 per cent. Many of these patients were in poor condition from cancer of the bladder, and in a number of them renal infection had already occurred.

My present opinion in regard to this method of urinary diversion is that it is the operation of choice in patients in good general condition upon whom intravenous pyelography shows the upper urinary tract to be essentially normal. The safest method is to implant one ureter at a time; this series showed better results when the ureters were not intubated. The method recently proposed by Higgins (anastomosis of both ureters to the bowel in continuity, allowing the ureters to function normally until cystectomy is done) and carried out by him with such success in a relatively large series of cases may prove to be the solution of this problem. Whether stenosis of the uretero-intestinal fistula will result seems to be a point that will have to be decided before we adopt this method whole-heartedly.

The large percentage of fatalities which followed uretero-enterostomy induced me to substitute simple ureterostomy. This can be done at the same time that the bladder is removed, thus subjecting the patient to but one operation. The weak point in this procedure has been the tendency of the ureter thus treated to slough at

its distal end, thereby causing the formation of an abscess between the peritoneum and the abdominal wall. In 22 cases of ureterostomy, 13 healed without sloughing, one ureter sloughed in 4, both ureters sloughed in 2, and 3 patients died before sloughing might have occurred. Those whose ureters sloughed required another operation to reestablish ureteral drainage. Certainly the mortality in this series was much less than in the series of uretero-enterostomies. If the upper urinary tract is dilated and infected, this more certain method of drainage is safer. All of these patients have been intubated; the urine drains through 16 French catheters into a hot water bottle. The tubes are a nuisance, naturally, but their presence need not prevent a patient from leading a fairly active life. This method of kidney drainage has been employed by Edwin Beer and Henry Wade in a number of cases.

Bilateral nephrostomy has been used in connection with cystectomy; Papin found 9 nephrostomies in a collected series of 181 cystectomies. In normal kidneys a nephrostomy sinus may be difficult to maintain; 2 incisions are necessary, and stones may form within the kidney. Pressure of the tube may interfere with the drainage from a calix, and the location of the fistulae is less convenient than the more anterior one of ureterostomy.

No method of urinary diversion is without its dangers and disadvantages, but we are dealing with a condition which will result in death unless it is attacked boldly and by radical measures. My attitude toward bladder tumors in general has gradually tended to become less radical in early cases (by which I mean that I resort to cystoscopic treatment whenever feasible) and more radical in certain selected cases. In many advanced cases in which I formerly tried to do the obviously impossible, I now do as little as possible.

Deep roentgen-ray therapy has not been discussed, because it has accomplished very little. Occasionally the hemorrhage in advanced malignant disease of the bladder may be controlled by the roentgen ray; otherwise, this measure has seemed to be of little value.

SUMMARY

Analysis of a series of 100 cases of bladder tumor enables us to answer as follows the questions asked in the early pages of this paper:

1. Benign papillomata not infrequently appear to undergo malignant degeneration.
2. In general, the tumors which develop in individuals under age 50 show definitely less malignancy than those which develop in individuals over age 50.

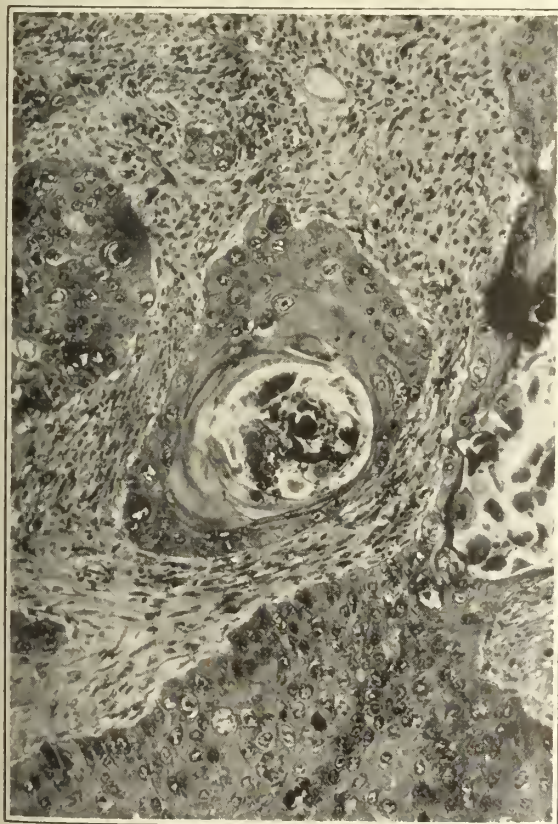


FIG. 4. High power. Epidermoid infiltrating carcinoma of the bladder showing marked tendency to cornification.

3. Single pedunculated tumors may be destroyed or removed with reasonable hope of success without removal of the entire thickness of the bladder wall.

4. Radium is of value in a limited group of cases. Resection, when possible, has given better results.

5. For multiple tumors of the constantly recurring type which cannot be controlled by other methods, total cystectomy is indicated; but this must be done before the growth has extended beyond the bladder wall and before the patient has become debilitated by sepsis and dilatation of the upper tract.

6 Commonwealth Avenue.

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ABSTRACT OF DISCUSSION

STACY M. HANKEY (Pittsburgh): Dr. Smith mentioned the so-called precancerous stage. This stage is not ordinarily seen in the bladder except, possibly, in the case of leukoplakia. I have observed quite a number of leukoplakias, some rather extensive; one particular case I have observed for 17 years, and that leukoplakial bladder has never developed any malignancy nor tendency to it. However, one patient with leukoplakia of the prostatic urethra developed adenocarcinoma of the prostate after 10 years' observation and died as a result.

Of the 41 cases of papillary carcinoma Dr. Smith has presented he has treated the majority by electrocoagulation plus some radium. He states that no biopsies had been taken. Naturally, in many of these, he does not know what type of lesion would be shown. My experience has been similar. I have not been able in the ordinary papilloma to prove or disprove an early tumor because of the fact that the fundus of the papilloma may be benign and the base malignant. Then, again, there are cases cited that involve multiple tumors, one being benign and the others malignant.

Twenty-one of the 27 single papillary tumors were treated by electrocoagulation and 6 by open operation; the patients living in each group at the present time are two-thirds of the original number operated upon, although in the group of electrocoagulated cases the number of years since coagulation is greater than that of the operative group. In the group of 14 cases of multiple papillomata, 11 of which were treated by open operation, the mortality is much higher than that in the cases of single papilloma. Roentgenologists are rather inclined to feel that deep roentgen-ray therapy has a destructive influence on bladder tumors, especially if early or of Grade I or II. It would seem that, if there is recurrence after the removal of tumors of the papillary type, some results should be secured with the proper dosage and proper application of the roentgen ray.

Radium has apparently cured a certain number of patients. Electrocoagulation has done its share. If there is any way to obviate recurrence, naturally that is the thing we should seek; and it seems to me that some

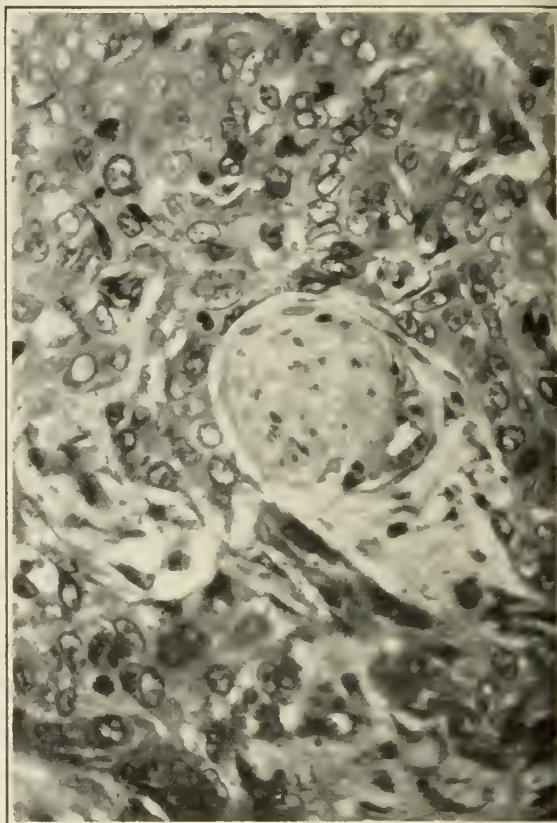


FIG. 5. High power. Showing perineurial invasion from vesical carcinoma in wall of bladder.

time in the future roentgen ray will have its place. Particularly in the group of infiltrating carcinomas anything that can be done by this particular means is worth while.

Dr. Smith has mentioned 2 cases in which he used radium seeds by way of the cystoscope. In his cases it was well worth while, because these patients were made comfortable and both of them are living; but I do not believe that the average cystoscopist can use radium seeds successfully in the treatment of bladder tumors. If radium is to be used at all, the open operation is the method of choice, by which the radium seeds can be placed on or around the pedicle or within the tumor as required.

Dr. Smith has resected 13 cases with satisfactory results, but when we consider that probably 85 per cent of all cases are located on the base of the bladder, the trigone, or in the region of the ureter, this method of necessity must be limited in its application to only 15 per cent. If it can be carried out, it is ideal.

Total cystectomy is increasing and will increase in the next few years if we are to accomplish something in tumors of the infiltrating and papillary types, because I do not believe that the papillary tumor is without involvement of the bladder wall. It seems that most cases have been delayed entirely too long to accomplish more than mere diversion of the urinary stream. If cystectomy is carried out at a much earlier date, it should be successful. Dr. Smith is located in a metropolitan area where he has constant access to a large hospital. We must think about the men scattered throughout the country who have small hospitals. These men do not have the chance nor do the hospitals have

the funds, usually, to furnish the necessary quantity of radium or equipment in the treatment of tumors. In papillomata of the pedunculated type, fulguration is most economical and most easily applied. In the more severe grades of carcinoma in which the method of choice must be radium or surgery, the point is passed where electrocoagulation will accomplish the desired results. If radium is obtainable, it is ideal; but in the poorer localities where they do not have radium, the procedure of necessity would have to be something radical enough to remove the tumor. That is the reason why cystectomy should be the operation of choice in outlying districts.

WILBUR H. HAINES (Philadelphia): There is one point on which I take issue with Dr. Smith. Most of us in Philadelphia have seen results from roentgen-ray therapy. It certainly does no harm, if properly applied, and gives fairly definite and satisfactory results in 25 to 30 per cent of cases. It is a procedure that I have used the past 15 years preoperatively and postoperatively. Large tumors have decreased to half their original size, and in 3 or 4 instances it has made large or multiple growths amenable to transurethral attack. An interesting question has arisen as to the desirable type of roentgen-ray therapy. I have always been a conservative and an advocate of mild therapy. Beware of the roentgenologist who thinks he can cure any malignant growth and has the audacity to diagnose growths not visible by the cystoscope. I am informed by outstanding roentgenologists that they are not absolutely convinced that the so-called high-powered deep therapy is the desired type, and this doubt arises after reviewing many case records of the past 8 years.

F. G. HARRISON (Philadelphia): Dr. Smith has discussed these cases in such a manner that we are able to judge for ourselves whether or not the best method of treatment was used.

He has emphasized that the best results with malignant disease of the bladder are obtained by early surgical removal. With this conclusion I agree heartily. I should like to refer to my report before the Allentown Session in 1928 on "End Results of Carcinoma of Bladder and Prostate Gland." In this report 178 cases were discussed; the best results were obtained from either partial or total resection.

There were 12 cases of resection and ureteral transplantation, 21 of cystotomy, fulguration, radium, and roentgen ray, 20 of cystotomy, diathermy, and roentgen ray, 4 of cystotomy with electrocautery and roentgen ray, while 21 had only cystotomy, 48 only palliative treatment, 26 had cystoscopic fulguration and miscellaneous forms of treatment, and 26 were lost to end classification.

There were 12 cases of resection in the series, with bilateral ureteral transplantation in 3 cases and unilateral in one. The histopathologic examination in all cases showed squamous cell carcinoma. Three of these patients are living and well—one for 9 years, one for 1½ years, and one for 1 year. One patient died after 1 year, one after 9 months, one after 6 months, and one of pneumonia 25 days after operation. There were 5 extremely advanced cases in which operative deaths occurred.

The next best results were obtained by cystotomy, diathermy, and the roentgen ray, which treatment was employed in 20 cases. The duration of the symptoms varied from 72 months to 1½ months, averaging 16 months. The condition of the patient was improved in 70 per cent and the symptoms were relieved in 90

per cent for a varying length of time. Two are alive and well after 3 years, though both showed squamous cell carcinoma on section. One is living after 2 years, another after 1 year, though the section showed squamous cell carcinoma. Nine lived for 9 months. There were 3 operative deaths, one from pneumonia, and 2 were lost to end tracing.

In 21 cases cystotomy, fulguration, radium, and the roentgen ray were employed. The duration of the symptoms varied from 60 months to 1½ months, with an average of 13 months. The condition of the patient was improved in 80 per cent of the cases, and the symptoms were relieved in 86 per cent for a varying length of time. Two are living and well—one for 7 years (section showed squamous cell carcinoma), and one for 5 years (section showed papillary carcinoma). Six lived 1 year or more, the average being 12 months. Six were lost to end tracing.

Similar results were obtained by Young. Barringer, in reporting 20 cases of papillary carcinoma, was confirmed by the pathologist in 12 cases; and in 51 cases of infiltrating carcinoma he had pathologic confirmation in 23. He describes 5 in each series as living from 5 to 11 years.

In this series there were only 4 cases of cystotomy and electrocautery with and without radium. The first patient, who lived for 10 years, died from carcinoma of the stomach, the bladder condition being satisfactory. One patient died after 1 year, one after 6 months, and one after 1 month.

Cystotomy as a palliative measure was done in 11 cases. The duration of symptoms varied from 9 years to 1 year and averaged 38 months. The average duration of life after cystotomy was 2 months. In a group of 10 cases collected at the Philadelphia General Hospital, the average duration of symptoms was 14 months, and the postoperative duration of life was 16 months.

In our experience radium has not been as efficacious as it has been in the experience of others.

In view of these results as compared with those of Dr. Smith, it is evident that there is still a high mortality. We have yet to solve this very distressing problem.

THOMAS C. STELLWAGEN (Philadelphia): I have had some experience with cystectomy, and frankly I have always had a fear of it. When we look through the cystoscope or try to determine the condition by any other method, we cannot determine just how many metastases have occurred. And frankly I have not had the courage to cystectomize these patients. It has been a very difficult decision to make, because the mortality rate in my cases has not been low.

Careful consideration must be given as to how, to whom, when, and where deep roentgen-ray therapy is to be applied. With Dr. Smith's presentation and his definite statistical studies of these cases, I feel sure of one thing—that the type of bladder tumor we see in Philadelphia differs very materially from the type he sees in Boston. I mean that he must get his cases very much earlier than we do, because most of the patients we see with tumor of the bladder show very definite bone and organic changes. It would seem that they must have better coördination in Boston than we have in Philadelphia.

Frankly, I should not care very much for life if I had to be cystectomized, but I suppose we should not look at the problem in that way.

HENRY K. SANGREE (Philadelphia): The early diagnosis of bladder tumors, the amount of involvement,

and the Grades I, II, III, or IV that are being used in classification are of paramount importance.

For several years, through the courtesy of Dr. Costello, we have been using a photographic cystoscope in the early diagnosis of bladder tumors to determine, if possible, the type of tumor, the Grade I to IV, and the amount of bladder involvement. We then remove a piece of the tumor, or if it is small the entire tumor, with a cystoscopic rongeur or a panendoscope and a cutting current, and have a laboratory collaboration.

In 2 cases followed to necropsy, we originally made a tentative diagnosis of papilloma of the bladder, but they were later determined to be carcinoma. We hope to be able by a careful study of the photographs to make an earlier diagnosis of malignancy, for on this depends the greatest possible chance of cure.

DR. SMITH (in closing): In regard to roentgen-ray treatment, I wish very much that I could find it of advantage. When the Palmer Memorial Hospital was first opened and we had a new roentgen-ray machine, a frail little old lady came in with a solid-appearing pedunculated tumor which must have been 2 inches in diameter. I said, "She won't stand operation; we will give her roentgen ray." This was done with the new machine, and great was my astonishment when the entire tumor sloughed off. In that case I think the tumor was supplied by a very narrow pedicle and the roentgen ray sufficed to set up endarteritis in the pedicle which cut off the blood supply in the tumor, resulting in a cure. Roentgen therapy has been tried many times since then with very little result except sometimes the cessation of hemorrhage.

As I understand the theory of roentgen-ray treatment of a malignant growth, the efficacy of the radiation treatment, whether by roentgen ray or radium, depends upon treating the cells during mitosis. In the benign papillomata there is a rather resistant type of epithelium which has relatively no mitosis. I should think *a priori* that the less malignant a tumor is, the more resistant it would be to radiation.

The patient on whom a total cystectomy was performed on account of a markedly contracted bladder was subjected to 2 series with the idea that perhaps the development of these small, delicate tumors could be prevented, but radiation seemed to have absolutely no effect. We have had some excellent radium therapists in Boston—Richard Dresser and Holmes of the Massachusetts General Hospital—and yet the experience in both the hospitals seems to have been much the same. I wish it were more efficacious. It may be, as Dr. Hankey has suggested, that by working along this line we can devise some method which will produce results. Roentgenologists seem to feel rather definitely that the reason roentgen ray succeeds in the treatment of cancer anywhere in the body is not that it actually kills the cancer cells, but that it sets up an endarteritis of the supplying blood vessels and then a general fibrosis ensues which may choke off the growth.

Radium is an unreliable weapon. It may work surprisingly well, as it did in both the cases in which radium was implanted through the cystoscope. In both of these cases the patients were unsuited for operation. One was a feeble old lady with a sessile ulcerative carcinoma of the bladder, which healed after it had been ringed with seeds. In regard to the cystoscope, it is much more effective to put the radium in through the open bladder. But in these cases it seemed advisable not to incise the bladder; and the result, temporarily, was very satisfactory. If I had to give up either sur-

gery or diathermy or radium, I would give up radium; yet it has distinct value if it is used properly. A man who has had little experience with it cannot use it to very good effect, and it certainly produces a marked reaction in some cases. I have had one patient for 4 or 5 years, in whom I put radium into a cancer of the bladder neck, who is still suffering from urinary frequency every hour. He now has a fibrosis of the bladder neck, although I have resected it once and incised the bladder once.

In regard to cystograms, I may have neglected to use an important diagnostic means. I have used them in some cases but have never been particularly impressed with the information secured. The cystoscopic appearance and the fact that you may or may not feel induration on bimanual examination; both in men and women, affords all the information required as far as the local condition is concerned. A great many men do use cystograms, which are worth while in some cases.

We examine the patients by roentgen ray, palpation, and intravenous pyelograms, and try to demonstrate whether there is any invasion elsewhere. It is only in the great minority of cases that evidence of metastasis is seen at the time these cases are studied, provided locally they are satisfactory to operate upon. If the case comes to us *in extremis*, we cannot do much.

As regards the discomfort after cystectomy, that is a matter which must be considered; therefore, the type of patient submitted to a ureteral transplantation must be selected carefully. In order that a ureterostomy may be performed successfully, the patient must understand the situation, be coöperative, and have a certain amount of technical ability because the tubes which the patients wear constantly have to be taken out, cleaned, and replaced. This can be done sometimes by the patient himself. One woman who wore the tubes for 4 years secured a position. She gave satisfactory attention to the tubes herself. At the end of 4 years she died of cancer of the gallbladder, and necropsy showed the kidneys to be normal. The situation seems to be analogous to that in colostomy. If a bladder can be removed before the process has extended so deeply into the bladder wall that metastasis is inevitable, it is better to do that than to have the patient die of cancer of the bladder.

DR. STELLWAGEN: In those cases in which you elect to do a cystectomy, do you as a preliminary apply deep roentgen-ray therapy or do you make your decision before you have applied any of the other so-called palliative methods of management of the case?

DR. SMITH: These cases are divided into 2 groups: (1) Those with a tumor so extensive that no other procedure would be helpful; and (2) those that are constantly recurring, perhaps low-grade papillary cancer, that may have been treated for years with fulguration, implantation of radium through the cystoscope, perhaps through the open bladder, and yet the growths keep recurring and begin to show evidence of infiltration and induration of the bladder wall. You must decide either to allow the case to proceed to a fatal termination or remove the bladder.

DR. STELLWAGEN: I had unfortunate experiences in 2 cases that were pre-radiated; my mistake was in waiting too long between the pre-radiation and the cystectomy.

DR. SMITH: I do not radiate them before operation intentionally. One patient had some radiation, but no trouble was experienced in removing the bladder.

THE TREATMENT OF PERIPHERAL VASCULAR DISEASE BY MEANS OF ALTERNATE NEGATIVE AND POSITIVE PRESSURE*†

EUGENE M. LANDIS, M.D., PHILADELPHIA

For the diagnosis, prognosis, and effective therapy of peripheral vascular disease it is essential to divide patients into 2 groups: (1) Those whose symptoms are due to simple spasm with no, or at most slight, organic vascular obstruction, and (2) those whose symptoms are due primarily to advanced organic disease of the arteries. Recent advances in surgery of the sympathetic nervous system have made it highly desirable to detect, early in the course of peripheral vascular disease, whether the flow of blood to an extremity is diminished by simple arterial spasm or by obliterative structural disease of the arteries. In treatment the best results can be obtained only if beginning organic occlusion is discovered before it has reduced too greatly the normal capacity of the blood vessels to dilate.

The several tests available for detecting early organic vascular obstruction, though different in method, are similar in principle. The surface temperature of the cold, exposed extremity is measured thermo-electrically. Vasoconstrictor tone is then abolished in the part under observation and the rise in surface temperature is recorded. The level to which skin temperature rises during complete vasodilatation has been determined in persons with normal peripheral circulation. If the surface temperature fails to reach this normal level in a room at suitable temperature, it can be concluded that the arteries supplying the part are unable to dilate owing to organic changes in their walls.

Vasodilatation of the peripheral vessels in the lower extremities may be induced by many procedures. It is convenient to use the simple expedient of immersing the forearms in warm water, verifying abnormal findings when indicated by anesthetizing the posterior tibial nerve. In completely normal subjects, immersing the forearms for 35 minutes in water at 43° to 45° C. dilates the cutaneous vessels of the lower extremities and elevates the surface temperature of the toes to 31.5° C. or more. Conversely, immersing both feet and legs in warm water for 35 minutes normally elevates the surface temperature of the fingers to 31.5° C. or more.

Patients with coldness, blueness, or pain in the lower extremities who show a normal elevation of skin temperature (i. e., to 31.5° C. or more)

are certainly free from significant organic arterial obstruction. When skin temperature fails to reach 31.5° C., but still reaches 26° C. or more, a moderate grade of organic occlusion is present. Dr. Starr has pointed out that patients with no, or at most slight, organic occlusion can be aided considerably by contrast baths, local heat, vasodilator drugs, the warm cradle, or sympathetic ganglionectomy, all of which increase blood flow, temporarily or permanently, by dilating those vessels which are still capable of expansion.

In the advanced stages of peripheral vascular disease the arteries become more or less rigid owing to structural changes in their walls. These diseased vessels have not only abnormally small lumina, but they are finally unable to dilate even when vasoconstrictor tone is abolished. Skin temperature then fails to rise during the period when vasoconstrictor tone is abolished. After the arteries have thus lost their power of dilating, the therapeutic procedures mentioned previously cannot be expected to increase blood flow and, in fact, they usually fail to improve the nutrition of the tissues in the extremity. Eventually many of these patients with conspicuous organic occlusion suffer from trophic changes, ulceration and gangrene, leading finally to amputation. Such patients present a particularly harassing therapeutic problem since the usual methods of increasing peripheral circulation all depend fundamentally upon the residual power of vasodilatation. At the University of Pennsylvania during the past 3 years attempts have been made to increase peripheral blood flow in this unfavorable group of patients. It can be expected that any procedure which increases blood flow in spite of advanced organic occlusion will reduce pain, aid healing, and delay or possibly prevent the appearance of gangrene. Rest pain and ulceration frequently require the amputation of extremities which, if they could be preserved, would prevent the patient from becoming an economic liability.

Early in the last century Poiseuille noted that the volume of blood flowing in unit time through a rigid tube is proportional to the fall in pressure along the tube. It seemed therefore that increasing the peripheral fall in blood pressure should increase the total amount of blood flowing past an arterial obstruction. The total fall of pressure in the peripheral vascular system might be increased in 2 ways: (1) By elevating

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† Robinette Foundation, University of Pennsylvania Hospital. The expenses of this study were defrayed in part by a grant from the Philadelphia Heart Association.

systemic blood pressure, or (2) by diminishing venous pressure. The first method is generally impracticable for numerous and obvious reasons. It seemed possible, however, that applying negative pressure periodically to the skin of the extremity might increase blood flow by temporarily reducing venous pressure below atmospheric pressure.

An aluminium box was built large enough to accommodate the lower extremity to a point 6 inches above the knee where the thigh was surrounded by an air-tight rubber cuff. An air pump, valve, mercury manometer, and relay were so arranged that the lower extremity was exposed alternately and automatically to a negative pressure of 80 to 120 mm. Hg. for 25 seconds and a positive pressure of 60 to 80 mm. Hg. for 5 seconds. Only 3 seconds were required for the shift from +80 mm. Hg. to -120 mm. Hg. The normal difference between mean arterial and venous blood pressures is about 80 mm. Hg. During suction this peripheral drop in blood pressure is considerably increased. The skin becomes red as the capillaries and veins are filled with blood. To empty the capillaries and veins rapidly at the end of 25 seconds of negative pressure, air is pumped rapidly into the box and pressure is elevated within 3 seconds to +80 mm. Hg. The skin blanches and the vessels are emptied through the veins, thus evacuating the peripheral vessels so that fresh arterial blood will be drawn into the capillaries and veins during the next period of negative pressure. The net result of this alternating suction and pressure is to increase considerably the average drop in blood pressure from artery to vein. Theoretically this should increase proportionately the flow of blood through the peripheral vessels of the extremity.

Prolonged reduction of blood flow produces local coldness, cyanosis, intermittent claudication, rest pain, and eventually ulceration or necrosis of tissue. If suction and pressure increase the local supply of arterial blood, these manifestations of ischemia should be relieved, at least to some degree. In earlier studies on normal subjects and on patients with peripheral vascular disease it was concluded that to obtain maximal effects on blood flow it is advisable to have (1) relatively brief periods of suction, (2) intermittent brief periods of pressure, and (3) diminished vasoconstrictor tone, the last being necessary in order that the dilated peripheral vessels may function as a reservoir for accommodating blood drawn in by each suction period.

This paper summarizes the effects of suction and pressure on the various manifestations of

reduced blood flow in a series of 16 patients with advanced peripheral vascular disease. In each instance the disease was of long standing and the patients suffered from thrombo-angiitis obliterans, simple arteriosclerosis, or diabetes with arteriosclerosis. Twelve of these patients had no vasodilator response in the observed extremity. The remaining 4 had in their most severely involved extremity a partial vasodilator response, the final skin temperatures ranging from 24° to 27° C.

With the patient semirecumbent, the most severely involved extremity was exposed to pressure variations for periods of 1 to 2 hours, from twice daily to once weekly, for totals of 2 to 112 treatment hours. The amount of suction ranged from -80 to -120 mm. Hg., and pressure from 60 to 80 mm. Hg. Suction and pressure were applied alternately for 25 and 5 seconds, respectively, except in one instance in which intervals of 50 and 10 seconds were used for part of the time. Vasoconstrictor tone was reduced by enclosing one forearm in an electric heating pad kept warm enough to produce slight generalized sweating.

In every instance the foot exposed to pressure variations became warmer than the control extremity. The final temperature reached was always above that attained by the same extremity when maximal vasodilatation was produced by abolishing vasoconstrictor tone. The digits of the foot exposed to suction and pressure became, on the average, 5.0° C. warmer than the untreated, or control, digits. The smallest difference in temperature was 2.2° C., the largest 9.8° C. The difference between the skin temperature of the treated and untreated extremities was usually great enough to be perceptible to the hand of the examiner, and to the patient himself.

The effects of suction and pressure on cyanosis were studied by comparing skin color with the series of standards devised by Lewis. In areas of frank gangrene no change in color could be detected, probably since the affected vessels were already thrombosed and circulation was at a complete standstill. The digits of patients with severe pain, with or without ulceration, were more or less cyanotic. In some it required but a few alternations of pressure to change this cyanosis to normal skin color. The skin then became deeply red during suction and pale during pressure as does normal skin. Small areas remained cyanotic for several days, but the normal coloration eventually extended over the whole skin surface. The hyperemia produced during the first few alternations in pressure was maintained for some hours, and usually became more and more lasting as treatment was con-

tinued. In some, however, the cyanosis did not change. In 3 patients striking improvement in skin color persisted through a severe winter.

Many patients with advanced organic occlusion suffer from severe and often intractable rest pain, which is either constant or occurs in brief episodes, usually worse at night. Two types of observations may be summarized. First, to observe acute effects extremities were exposed to pressure variations during episodes of pain. The first patient was admitted with a huge gangrenous slough involving the palm following amputation of a finger in another hospital. He was unable to keep the hand higher than the sternum owing to severe rest pain. At 12:15 p. m., while pain was present, the hand and forearm were placed in the apparatus so that they lay in a position known to produce pain. Fifteen minutes after pressure variations began the pain had disappeared although holding the hand in the same position was unbearable under ordinary conditions. The pain remained absent until 1:45 p. m., when the pump was stopped for 2 minutes. This was followed by severe pain in the palm. After the pump was again started the pain disappeared leaving only some residual itching. Pain was absent for the remaining hour of the observation. The pain returned, however, several hours after suction and pressure were discontinued, and amputation was done primarily on account of the size of the slough. Another patient had ulceration with severe rest pain owing to arteriosclerosis. This pain had prevented sleep despite the use of moderate sedation. At 11 p. m., severe pain wakened the patient; the affected extremity was placed in the apparatus at 11:45 p. m., while pain was still present. Fifteen minutes later the pain had disappeared and the patient was drowsy. Thereafter he slept until 4:15 a. m., when he was removed from the apparatus and continued sleeping during the remainder of the night.

In the many hours during which extremities have been exposed to these pressure variations true rest pain has not been observed during treatment. Discomfort sometimes appeared owing to drying of ulcers. This was avoided by covering the raw surfaces with vaseline. As a rule patients, previously exhausted by continued pain, fell asleep shortly after the extremity was placed in the apparatus. The continuous application of negative and positive pressure over long periods of time was attempted. It was found quite early, however, that the rubber cuff at the proximal end of the apparatus became uncomfortable usually after 2 to 4 hours, making it impossible to prolong pressure variations uninterrupted beyond this period.

Patients with frank gangrene or sloughs were relieved of pain only temporarily. Eventually amputation was performed in all 4 patients of this group. Striking and persistent relief of pain was often observed when indolent or slowly enlarging ulcers were present without large sloughs. Sleep ordinarily became possible without sedatives after a few days. The results in patients with intermittent claudication were difficult to estimate and have been less striking, though in general slow improvement was observed. The subjective nature of the symptoms and the possibility of spontaneous recovery make it advisable to reserve judgment.

The diminished blood flow of peripheral vascular disease leads eventually to local gangrene or to indolent ulceration which often resists all conservative treatment. Patients with frank gangrene did not improve significantly during or after pressure variations. Three patients of this type came to amputation in spite of temporary relief of symptoms. Marked improvement and rapid healing of ulcers were observed in patients with indolent ulcers without frank gangrene. The ulcers had, in some instances, been indolent or enlarging under treatment with antiseptics and heat for periods of several months before pressure variations were used. The healing, which occurred during application of suction and pressure, was accompanied by improvement of skin color and diminution of rest pain.

The rise in skin temperature, the improvement of skin color, the diminution of rest pain, and the healing of previously indolent ulcers indicate that alternate suction and pressure increases blood flow at least temporarily. At the present time it is impossible to do more than speculate upon the permanence of this improvement. Complete and lasting recovery depends upon the development of adequate collateral circulation. Sufficient time has not elapsed to determine to what extent increased blood flow depends upon the continued use of pressure variations.

In some patients collateral circulation develops slowly during and after treatment. No vasodilator response was observed in one patient during March, 1933. After the use of suction and pressure the right extremity showed during January, 1934, a slight but definite increase in temperature during immersion of the forearms in warm water. The untreated extremity, on the contrary, exhibited on the second examination less vasodilator response than before. Another patient showed no change in vasodilator response between February, 1932, and March, 1934, although considerable treatment was given during late 1933 and early 1934. Clinical improvement was distinct, however; rest pain and cyanosis

diminished and an indolent ulceration following amputation healed without incident during the use of negative and positive pressure.

From the results summarized above it may be concluded that alternate suction and pressure increase blood flow temporarily, even after organic vascular disease has diminished or abolished vasodilatation. The changes of skin color, the alleviation of rest pain, the accelerated healing of indolent ulcers amplify the earlier evidence based on studies of skin temperature. Concerning the real therapeutic value of this procedure little can be said until a large series of carefully controlled and extensive clinical observations have been made. Reid and Herrmann have described the development of collateral circulation in patients with peripheral vascular disease after prolonged treatment by means of pressure variations in cycles of 5 minutes. In the beginning they utilized Bier's method, in which negative pressure was applied very gradually for 2 minutes, maintained at -70 mm. Hg. for 1 minute, and then gradually relieved during 2 minutes, no positive pressure being used. More recently they have adopted a procedure involving briefer periods of negative pressure alternating with positive pressure in cycles as short as 15 seconds.

Contraindications to the use of suction and pressure can be given at this time on theoretical grounds only. Active or acute infection may be unfavorably influenced by the procedure. Osteomyelitis, however slight, makes it unlikely that complete healing of cutaneous lesions can be obtained as long as drainage from beneath continues. When large masses of tissue are actually gangrenous or sloughing, only temporary relief has so far been observed.

SUMMARY

It is advisable to detect beginning organic obstruction as early as possible in the course of peripheral vascular disease, since the effectiveness of conservative therapy depends primarily upon the ability of the blood vessels to dilate. Unfortunately many patients reach the hospital after peripheral vascular disease has advanced to the stage when the arteries are no longer able to increase their diameter, though vasoconstrictor tone is abolished. Even under these unfavorable conditions, however, it is still possible to increase blood flow by means of alternate suction and pressure. This procedure elevates skin temperature conspicuously, tends to relieve cyanosis, diminishes rest pain and favors, at least temporarily, the healing of superficial indolent ulceration. Whether or not the development of collateral circulation can be so stimulated as to re-

turn tissue nutrition permanently to a normal state is not yet certain. The practical importance of suction and pressure in the treatment of peripheral vascular disease will necessarily depend to a great extent on the degree to which collateral vessels take over the function of those arteries which are closed by disease. There are indications that if the patient can be aided temporarily over crises of rest pain or ulceration, time will be gained for the natural development of collateral circulation so that a certain number of mutilating operations can be avoided. In this connection the application of alternate suction and pressure can be of service even to those patients whose peripheral vessels have lost completely their power of dilatation owing to advanced obliterative arterial disease.

Thirty-sixth and Spruce Streets.

ABSTRACT OF DISCUSSION

LEWIS H. HITZROT (Philadelphia): Dr. Landis has given the theoretical basis for the treatment of occlusive peripheral vascular disease by the use of alternate suction and pressure. He has indicated the encouraging experimental and early clinical results in a difficult field of therapy.

The procedure increases the flow of blood through an extremity, even though the main stem vessels may be blocked, to an extent not obtained by any other mode of treatment so far used. If the principle is sound, then it is important to know whether the application to the suffering patient is practical and without harm.

No better analysis of the clinical application of alternate suction and pressure can be given than to summarize the results at the Philadelphia General Hospital, where a machine identical with that developed by Dr. Landis was installed last year on the Metabolic Service of Edward Dillon, with the aid of a grant from the Committee on Scientific Research of the American Medical Association.

In the diabetic service of a large city hospital, the material showing the early and late results of obliterative arterial disease is extensive. It should provide a thorough test of any mode of therapy which aims to hasten healing or prevent mutilating amputations. The treatment is prolonged and takes perseverance. It is possible to present completed results in only 20 cases, the first series in which the technic of treatment outlined was used.

Fifteen of the 20 cases selected for treatment were diabetics with obvious vascular changes; the 5 non-diabetics, referred from other services in the hospital, presented comparable vascular problems.

The foot lesion was infected in the majority of these cases. With 2 exceptions the ulcer was open, chronic, and had been walled off. Such cases were chosen for 2 reasons: (1) To control the therapy by taking only individuals in whom there was reasonable evidence that the usual conservative measures were failing after prolonged trial; and (2) to avoid pumping an active or spreading infection higher into the limb. If the contraindications of active or spreading infection, imprisoned pus, or osteomyelitis are avoided, the procedure is without danger even in diabetic foot lesions. Furthermore, there is no question that the increased blood

flow promptly stops the pain of ischemia, so prominent for example in Buerger's disease.

The 3 failures are worthy of attention. In one, osteomyelitis in the metatarsal progressed slowly, draining through a sinus, although the ulcer of the soft tissues healed completely under treatment. Eventually the leg was amputated. In the second case amputation was hastened because of an error of judgment as to the activity of the toe infection. Suction and pressure aggravated it. The third patient had an actively necrotic ulcer, the progress of which was, if anything, hastened by only 2 hours of suction and pressure.

In the other completed cases, the results were good in varying degrees from temporary alleviation of pain to complete healing of deep trophic ulcers which had resisted other therapy for months. The gangrene in the patients treated was superficial and did not involve the deep tissues of toe or foot.

A summary of the results of suction and pressure treatment of peripheral vascular disease in the first 20 cases at the Philadelphia General Hospital follows:

Diabetes, arteriosclerosis, chronic ulcer	6
Diabetes, arteriosclerosis, superficial gangrene ..	4
Diabetes, arteriosclerosis, pain	5
Thrombo-angiitis obliterans	3
Arteriosclerosis with ulcer	2
Average number hours of treatment	21.5

Objects of treatment (usual treatment having failed)

1. To promote healing of trophic lesion.
2. To allay ischemic pain.

RESULTS

Good	14
Ulcers healed	3
Gangrenous plaque separated and healed ...	4
Pain relieved	7
Encouraging but incomplete	3
Failure	3
Osteomyelitis present, amputation	2
Active ulcer in diabetic, amputation hastened	1
Toe or limb amputations prevented	5

FRACTURES OF THE SPINE*

ARTHUR G. DAVIS, M.D., ERIE, PA.

Controversy no longer exists regarding the mechanics of reduction of crush fractures of the centrum. Hyperextension is now generally accepted as fundamental to reduction. The discovery that the very strong anterior common ligament is the check to overhyperextension has dissipated the natural fear felt by many operators that extreme hyperextension involved the risk of cord and root damage. If the complete ligamentous investiture of the fractured centrum is visualized as the collapsible leather of a hand bellows (Figs. 1 and 2) and if the upper and lower frames of the bellows are replaced by the 2 vertebrae immediately adjacent, the remarkably accurate reductions are easily explicable. The dense fibers of the annulus fibrosis of the intervertebral disk are also important as furnishing an inescapably perfect upper and lower ring form for the formation of the future callus.

The upper semirigid thoracic lever ending in the vertebra next above the fractured one and the lower more flexible lumbar and lower extremity lever ending with the vertebra next below the involved one completes the picture of the usual dorsolumbar crush and invites the only logical mechanics of reduction, namely, hyperextension. It remains only to select the method best suited to the particular case at hand and to facilitate reduction with the least possible stress and the greatest mechanical efficiency.*

Two characteristics of the act of hyperextension of the spine should be borne in mind when contemplating reductions whatever the method:

1.—The fact that the normally hyperextended spine is shaped like a hockey stick, the handle of which conforms to the relatively inflexible dorsal segment, the crook closely resembling the lumbar section (Fig. 3); any reduction procedure should therefore aim at extending this lumbar segment, thus stretching the anterior common ligament without stretching the relatively unstretchable thoracic portion. Methods which distribute the hyperextending force equally from cervical to sacral segments obviously do not conform to the normal sectional anatomic peculiarities.

2.—The fact that normally the degree of hyperextensibility varies considerably as between the compact, stocky type with little range of motion and the slender type with large range of motion, the arc of curvature required during reduction to produce a taut common ligament therefore varies with the anatomic types.

With the present accumulation of evidence of hundreds of cases reduced by various methods, it seems timely to discuss certain aspects and revisions of treatment as they have presented themselves.

Nine years ago at the time of our first reductions the above anatomic interpretations led me to use the foot suspension method. Since then a number of methods have been described. Most of these apply hyperextension symmetrically to

* Read before the Section on Surgery of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 4, 1934.

all portions of the spine in either the prone or the supine position.

Rogers, Dunlop, O'Donoghue, Jones, and others have shown altogether satisfactory results using such methods. The principal modification introduced in the foot suspension method since the earlier work has simplified the technic enormously. Whereas the first cases were encased in shells from knees to head because it was thought this splintage was essential to retain the common ligament taut, at present a close fitting jacket is immediately applied. Immediate jacket splintage is found to be quite adequate and infinitely more comfortable.

Although most of the cases in Erie yield symptomless spines and a full return to original occupation with complete cessation of disability, occasional cases are found to have a residuum of painful symptoms sufficient to result in permanent partial disability. Almost universally in these cases the anterior vertical height of the vertebra has not been fully restored. Starting on the basis that hyperextension is fundamental to any form of crush fracture treatment, any

study of end results should consider the perfection of the original reduction, recurrence of wedging during convalescence, integrity of callus, penalties of the prolonged hyperextended posture, residual disability, and residual pain.

End results as reported generally throughout the world since the advent of hyperextension show great improvement over the premanipulative era. Nevertheless a small percentage of cases show an aftermath of symptoms and disability. The commonest finding in such cases is inadequate reduction and recurrence of wedging. The persistence of pain and tenderness at the point of fracture is fairly characteristic. These symptoms are best explained by an alteration in the bearing surfaces of the posterior spinal joints, an inevitable penalty of wedging and roughly proportional to the degree of wedging. The altered relationship of the articular process facets obviously favors the development of a traumatic arthritis with the usual prolonged penalty of joint pain.

Exceptionally these painful sequelae are explained by a rupture of the intervertebral disk. This sequel is unavoidable and does not ordinarily manifest itself until 6 to 12 months after the injury. Lateral roentgenograms during this period will reveal narrowing of the disk or cupping of the vertebra characteristic of the rupture of the nucleus. In such cases spinal fusion is indicated.

Regarding the sequelae directly attributable to the necessarily prolonged hyperextension position, in our own cases we have seen no permanent ill effects following either the shell or jacket type of coalescence. Nevertheless we always prescribe postural exercises following the removal of the cast. The exercises develop the abdominal musculature and reduce the temporarily exaggerated lumbar lordosis.

Whereas formerly a Taylor brace was applied following shell treatment, at present it is thought that for the average patient the fenestrated plaster jacket allows as much liberty and offers greater security for the poorly instructed or difficult patient.

CHOICE OF METHOD

Fortunately to-day we are equipped with a variety of methods from which we can choose the one best suited to the particular case. Shock, internal complications, multiple fractures, and fracture dislocations with paralysis clearly demand at least the temporary use of a hyperextension frame of the Rogers type.

Simple anterior upper lip fractures require nothing more than a hyperextension jacket which

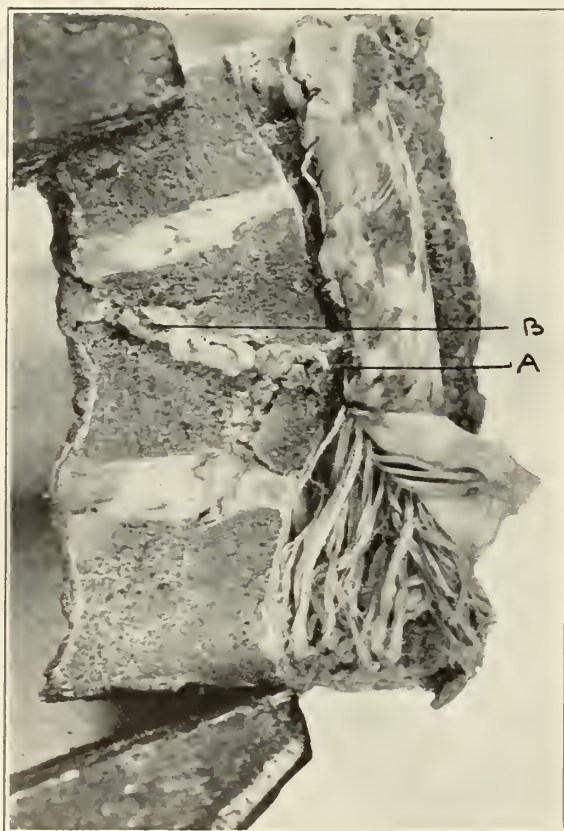


Fig. 1. Necropsy specimen. Actual fracture of second and third lumbar vertebrae showing:

- (a) Characteristic impingement of posterior superior angle of third lumbar vertebra on spinal cord structures and typical collapse of fractured centrum.
- (b) Note unusually severe damage to intervertebral disk.

may be applied in the prone position on a canvas strap, on Goldthwait irons bent to suit the case at hand, or by the Jones method between 2 tables, the latter two requiring a fully conscious patient. The use of an automobile jack with special saddle, first suggested by Ryerson for hyperextension but later by O'Donoghue for fractures, is eligible for the average case but requires an anesthetized patient. The pressure of the saddle during reduction and jacket application is too painful for the unanesthetized patient and is bitterly complained of for days afterwards. It is very effective and were it not for the unusual stress and painful aftermath it would appear the simplest method of all (Fig. 4).

The foot suspension method remains the method of choice. It realizes the ideal mechanics in producing *hockey stick* hyperextension. There is less stress needed per degree of reduction. Complete restoration of vertical height of the centrum is more certain. It is less risky because no real compression is exerted on the posterior arch. The possibility of posterior arch fractures should always be considered. Pedicle, lamina, and articular process fractures are extremely difficult to detect by roentgenography. General or partial anesthesia can be used or omitted. Most of our patients are not anesthetized.

Extemporaneous foot suspension can be arranged anywhere by using a sheet folded over and over into a hammock 8 to 10 inches wide; the sheet is nailed to 2 tables of equal height and the tables separated the length of the torso. The tables are then properly blocked to prevent sliding toward each other. The suspension is arranged in a doorway with a heavy-duty screw eye, block and tackle with spreader being used for foot suspension. Rarely is it necessary to manipulate as well. However, for the exceptional impacted case in which angularity is seen to persist after foot suspension, the fracture can be disimpacted by gentle pressure on either side of the involved spinous process.

A fully conscious patient undergoing foot suspension and immediate jacketing complains very little of pain during the reduction. The reason apparently is that the major portion of the torso rests comfortably upon the canvas hammock. The stress of suspension is limited therefore to the weight of the lower extremities only.

Whereas formerly I thought shells from heels to knees were necessary (they still are indicated for patients with chest and abdominal complications besides certain paralyzed patients), now as shown in the illustration (Fig. 5) the immediate

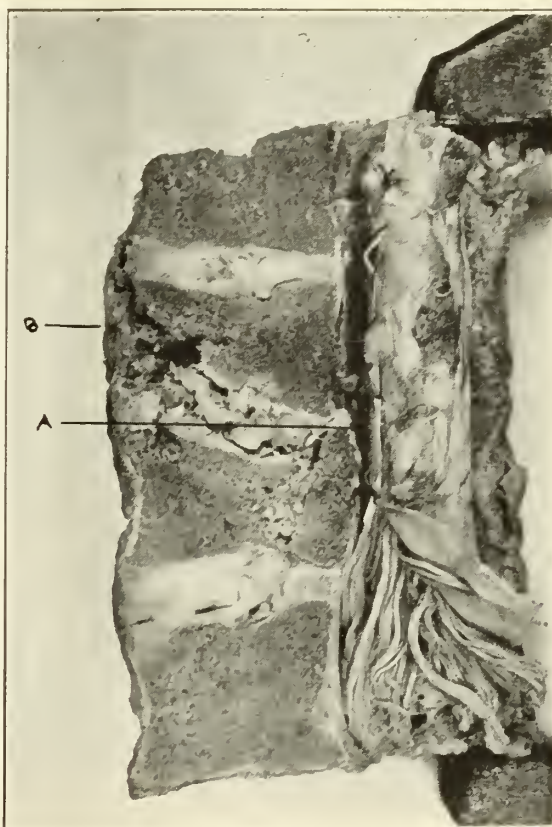


Fig 2. Typical effect of hyperextension.

- (a) Restoration of spinal canal caliber.
- (b) Intact anterior ligament.

application of a jacket using a hammock simplifies the procedure enormously.

EARLY DETECTION AND FIRST AID

In spite of the fact that numerous authors have emphasized the overlooked fracture of the spine, fractured spines are still missed. For this reason I must add my plea for eternal awareness. Every victim of an automobile accident, all those injured by falls from a height, patients with fractures of the os calcis, and all other severely injured patients should be surveyed for the possibility of spinal fracture. It is our custom to percuss deeply the spinous processes and the areas laterally adjacent thereto. If tenderness is elicited or backache complained of, a lateral view centered at the dorsolumbar junction is the most likely plate to show fracture. The presence of multiple injuries and fractures helps to obscure the spinal symptoms. Shock also may deter the examiner. In multiple fractures the most shock-producing injury is usually the spinal one; therefore, it is the more necessary to reduce shock by gently hyperextending the spine on a frame, also allowing respite for treatment

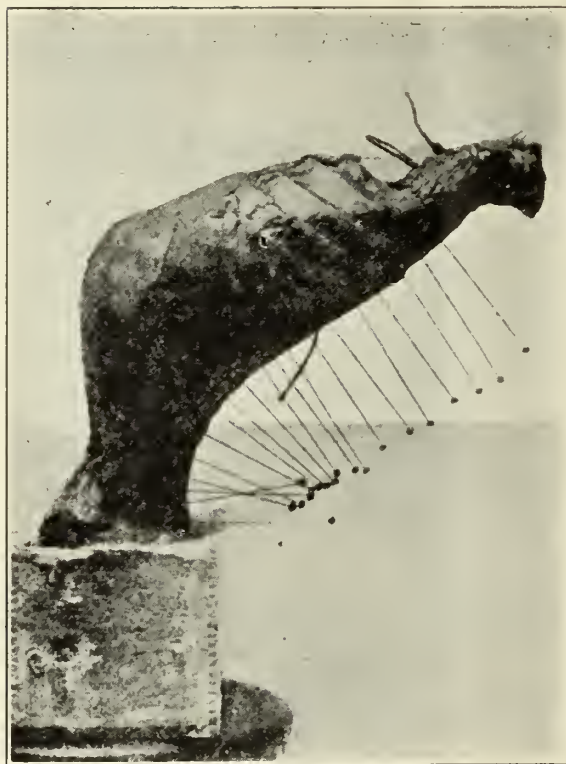


Fig. 3. Hyperextension in the cadaver.

of the other fractures or formidable complications.

In transferring patients from the site of accident the same underlying principle of hyperextension should be observed. Our practice is to roll the patient on a sheet, a blanket, or canvas into a prone position, and to maintain this prone attitude throughout the necessary handling incident to transportation and roentgenography. The patient is carried on the improvised hammock with the attendants supporting the sheet at either end. The usual excited, well-intended, but misdirected efforts to help at the time of accident or during transportation may easily further crush or paralyze such patients.

AFTER CARE

Whether the patient is in jacket or shells in uncomplicated cases, recumbency is indicated for a period of from 6 to 8 weeks. To be ambulatory from this period on in a close-fitting hyperextension jacket is important. The intact posterior arch can be depended upon to prevent recurrent collapse under these conditions. The advantages of being up and about are the early restoration of the torsal musculature and the general advantages of physical activity. Besides, better circulation stimulates callous formation. The ambulatory jacket is continued for an additional

6 to 8 weeks, and then after roentgenologic confirmation of callus ordinary activity is resumed. If tenderness can still be elicited upon deep percussion over the spinous process, more guarded convalescence is indicated. No rule of thumb can be made to cover the periods of recumbency and resumption of normal activity. All evidence points to the fact that, when adequately treated, the vertebral centrum forms callus as readily as any other essentially cancellous bone. There is no more reason to believe that the superimposed weight will subsequently collapse a centrum than that the body weight will collapse a fractured heel after 4 months. Roentgenograms taken from 1 to 6 years afterward have shown no change in vertical diameter.

IMPRESSIONS

The hockey stick type of hyperextension seems most logical and proves to be most effective for the usual dorsolumbar uncomplicated crush fracture.

The foot suspension technic has proved the most effective as measured by ease of operation, degree of reduction, and general application. The more complete the restoration of vertical height the less residual disability. Unsatisfactory roentgenograms, taken within 24 hours, indicate the necessity of a more thorough attempt at complete hyperextension.

Carefully applied close-fitting jackets, extending from clavicles to groin anteriorly and molded

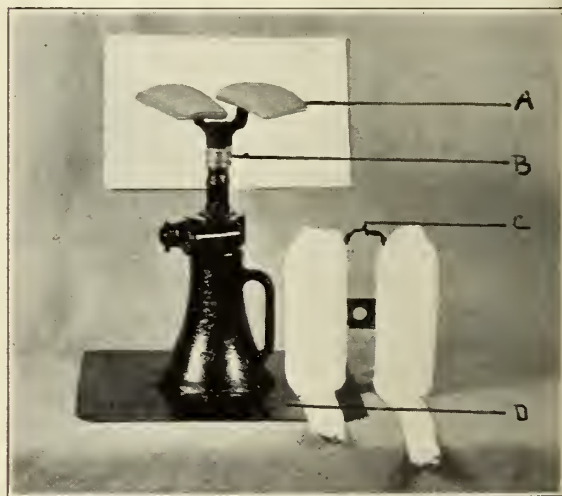


Fig. 4. Jack as devised by the author.

- (a) Saddle made of 18-gauge steel blades cushioned with felt.
- (b) Slip lock joint.
- (c) Space between flexible pads to avoid pressure on spinous processes and lateral masses. Stockinette pad covers to provide means for withdrawal of support after jacket application.
- (d) Duff gear jack braised to 12-inch square steel plate for stability.

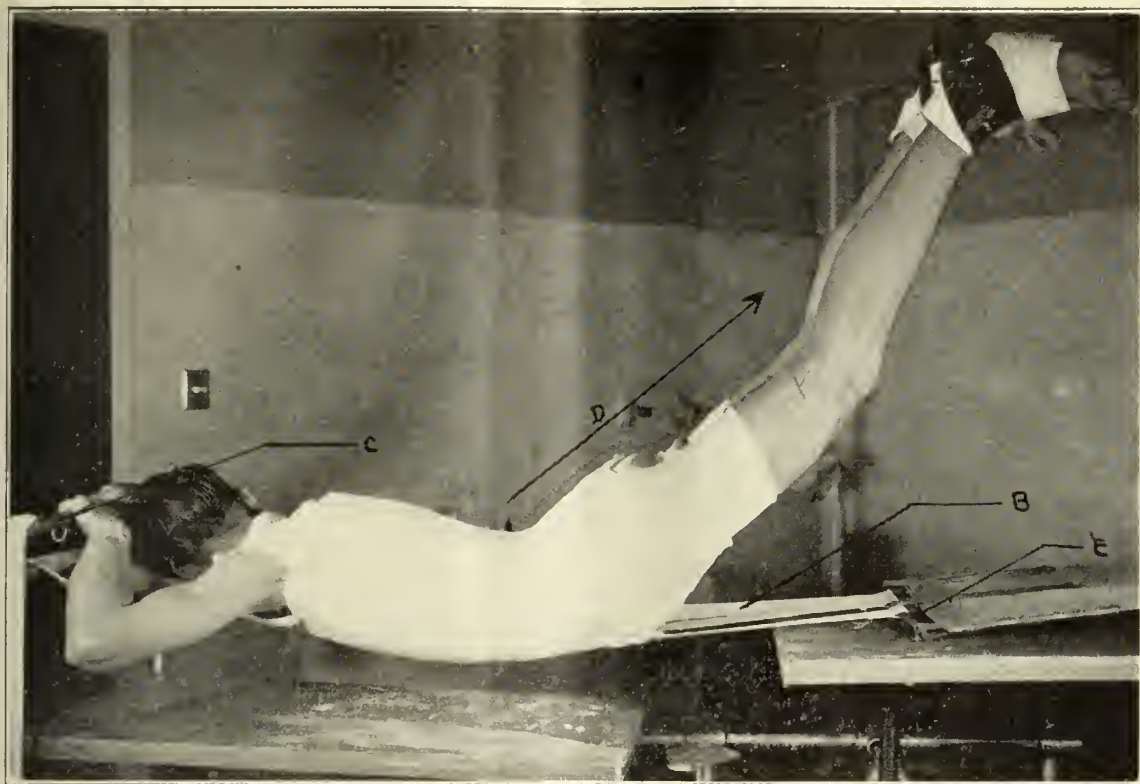


Fig. 5. Foot suspension with immediate jacket application. (a) Sheet wadding and leather anklets suspended by pulley traction. (b) Ten-inch heavy canvas hammock. (c) Rotating ratchet for adjustment of hammock. (d) Resultant of horizontal and vertical traction. (e) Rods fastening adjustable to permanent hammock.

closely to the lumbar spine posteriorly, are entirely adequate for splintage.

Prolonged recumbency is a disadvantage. When the spine is well hyperextended and held so by a well-fitted jacket, the posterior arches of the vertebrae in the dorsolumbar region carry the full burden of superimposed body weight.

FRACTURE DISLOCATIONS WITH PARALYSIS

Fracture dislocation with paralysis calls for the same mechanical principle as does compression fracture. Although my personal experience is very limited in this infinitely less hopeful condition, we have collected some evidence that hyperextension is probably of greater therapeutic value than laminectomy. Elsewhere this subject is treated in detail. Careful repeated neurologic examination, spinal puncture, detailed roentgenography, and many other factors should be weighed before a decision is reached. Our practice is to hyperextend always because this obviously restores normal relationships. Since the usual cord compression is due to pressure of the upper posterior margin of the fractured centrum, hyperextension removes this compressing element by reducing the jack-knifing (Figs. 1 and 2). The full diameter of the spinal canal is

restored. With the patient in shells laminectomy can be performed if indicated. Very often the extent of cord damage is impossible to determine; whether contused, compressed, or severed, temporarily concussed, or permanently paralyzed is often the question. The results from laminectomy are notoriously discouraging. Whether or not laminectomy is done, normal anatomic restitution is obviously necessary for the future function of the spine.

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ABSTRACT OF DISCUSSION

H. ALEXANDER SMITH (Wilkes-Barre): I should like to discuss briefly the case of a man who was hurt in an automobile accident and was in a semiconscious condition for about a week. This patient was extremely large. He was placed on the Rogers bed with results similar to those described by Dr. Davis. A brace was applied, which he is now using only part of the time; when he gets into an automobile he puts the brace on. He has been walking for months. He has no nerve lesions.

All cases of fractured spine should be put in hyperextension at once, even when there is a nerve lesion or complete paralysis. If the patient is put on a Rogers bed or a piece of canvas, or if some other sort of hyperextension is used, the patient will have the best chance for regeneration. Hyperextension will overcome a certain amount of the depression.

GROVER C. WEIL (Pittsburgh): Dr. Davis' efforts in outlining the mechanism of development and the principles established in the standardization of treatment have been decidedly helpful. His reference to postconvalescent arthritis with continued disability as the result

of incomplete reduction of the posterior facets is most important. I fully agree with him that early and complete reduction at the opportune time by complete hyperextension is the method of choice. Our experience during the past 3 years after following the Davis method has shown superior results.

THE IMPORTANCE OF CORRECTING MUSCULAR IMBALANCE IN THE RELIEF OF ASTHENOPIA*

LEIGHTON F. APPLEMAN, M.D., PHILADELPHIA

It is a well-known fact that some patients are refracted and given glasses, yet continue to have symptoms for which they originally sought relief. This leads to the belief that not all the factors involved in the ocular examination have been investigated with sufficient care.

There are 3 factors to be considered before a patient can be said to have been examined adequately: (1) Proper refraction, which should be done under a cycloplegic in children and adults up to age 40 unless there are well-recognized reasons for not using it; (2) an estimation of the state of the vertical muscular balance for distance and near; and (3) an estimation of convergence power, a sufficient amount of which is necessary to enable the patient to work comfortably at any occupation calling for use of the eyes at a range of 10 to 18 inches. For all practical purposes, attention to these 3 factors and their proper correction will give relief.

The vast majority of the laity and even many medical men believe that a test for glasses (be it made by optometrist, optician, oculist, or physician with insufficient special training who attempts to fit glasses along with his many other accomplishments) should be sufficient excuse for believing that another examination would be superfluous. How many realize that this part of the examination may constitute about one-third of the examination?

The symptoms usually point to one or another of the factors named above as the cause of the difficulty. The common complaints of these patients are familiar; consequently, it is superfluous to enumerate them all.

Headache is the most common, but it is not enough to know merely that headache is present. The part of the head affected, the character of the headache, and the time of its appearance in reference to the use of the eyes are important considerations. Frontal and temporal headache is mostly ocular in origin, the severity having a

direct relation to the amount of ocular work done. This may be relieved by refraction alone without attention being paid to any external muscular imbalance. If occipital headache is present, either alone or in association with other manifestations, vertical muscular imbalance should always be suspected. Inquiry should be made as to whether it is aggravated by viewing moving objects, as in riding on a train, a trolley, or an automobile and viewing the landscape from the side. Some complain that watching the road in front of an automobile gives the same discomfort, but not so constantly. It is also important to know if this discomfort is accompanied by a sense of nausea. Some patients, especially women, experience these symptoms when shopping or moving in a crowd—so-called sick headache. Moving pictures are intolerable to some persons, either while they are viewing them or after having done so. Under these circumstances a correction of vertical muscular imbalance, in addition to the refraction, is most important if the patient is to have relief.

Of the symptoms which are indicative of the third type of defect, namely, deficiency in convergence power, the complaint that the eyes tire in continued near work is the most common. The patient usually reads several lines, experiences a blur, and desires to look away or to rub the eyes. Then he reads a few lines more only to have the same feeling repeat itself until finally the book or work must be put aside. These symptoms mean that convergence power, or the ability to hold the eyes in the line of fixation, is deficient. Blur occurs when the internal recti tire and relax. When the patient looks away from the page or work, momentary rest occurs. Upon going back to the task the eyes can carry on for only a short time until the same sequence is repeated.

A test of the convergence power may show inability to overcome more than 8° to 10° of prism, base out, whereas normally 18° to 20° should be overcome. Upon exercising for a few

* Read before the Section on Eye, Ear, Nose, and Throat Diseases of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 4, 1934.

minutes with prisms, even less power may be manifested, indicating that there is not enough strength in the internal recti muscles, which are mainly concerned, to permit efforts of this sort or to permit of long periods of close work.

The diagnosis of the other factors, aside from simple refraction, rests in determining quickly the status of the muscle balance, immediately afterwards an estimation of convergence power and also the divergence power, which normally should have the relation to each other as 3 is to 1. This should be done at the first visit, before any mydriatic is used; it requires very little time.

After the patient's vision has been measured both with and without glasses, if they are worn, a Maddox rod is placed before the right eye so that the line from a light 20 feet distant will appear vertical. The patient is asked to state whether the line runs through the light, to the right of it (esophoria), or to the left of it (exophoria). The amount of the deviation is measured by placing a prism, base in or out as the case may be, until the line cuts the light. If esophoria of moderate degree is shown, it need not occasion much concern as it may be nullified by the use of a glass which corrects the refractive error, particularly if the patient is hyperopic. If exophoria is present, its amount should be recorded and considered in connection with convergence weakness.

The Maddox rod is then rotated through an arc of 90° so that the line will appear horizontal to test for hyperphoria. If the line appears above the light (left hyperphoria) a prism of sufficient strength to bring the line through the light should be placed before the left eye, base down. Whether or not any muscular imbalance is found, the patient should be tested at the reading distance. This may be done with the Maddox rod and a small pin hole of light emanating from a small apparatus held in the hand at the reading distance, or the Graefe dot and line test may be used by holding a 20° prism, base in, before the right eye exactly horizontal to displace the images. In either test, if the right image is above (left hyperphoria), a prism of sufficient strength is placed base down before the left eye to obtain equilibrium. Rotating the Maddox rod 90° will again give the reading for esophoria and for exophoria, or if the dot and line test is used, a 10° prism, base down, before the right eye will give sufficient vertical displacement. All measurements should be carefully recorded.

After the hyperphoria is determined at the near point and the prism sufficient to correct it

is in position, the patient is asked to look again at the distant point of light and with the Maddox rod determine whether there is now an over-correction. If so, it is my custom to decrease the strength by half degrees until there is balance again.

It will happen at times that no hyperphoria is shown at distance, yet 3° or more will appear at the near test, and after the gradual reduction 1° or 2° may be manifested. This difference between the first and second distance reading I regard as the latent error, which cannot be uncovered without doing the near test as well as the original distance test. Likewise, when the strength is reduced and the prisms changed, the second glass should be slipped into place so quickly after the first is removed that the patient has no time for readjustment without the prism. Marlow uncovers this latent error by means of his occlusion test, and others accomplish the same result with modifications of his method. The method outlined has given most excellent results without loss of time.

The diagnosis of convergence power is accomplished by placing prisms, base out, in increasing strengths before either eye alternately in rapid succession until the patient experiences lateral diplopia. The patient should accept up to 20° or more. If this power falls to 8° or less, it indicates that there is not enough strength in the internal recti muscles, which are mainly concerned, to permit of long periods of close work without discomfort.

After the refraction has been completed and the strength of the glasses determined, it becomes necessary to incorporate a correction for hyperphoria. In the presence of exophoria the patient will generally accept almost all of the amount of correction for the hyperphoria; in the presence of esophoria it may be necessary to cut off one-fourth to one-third of the total uncovered. This may be placed in one lens only if of moderate degree, up to $1\frac{1}{2}^\circ$, base up or down as the case may be. Above this amount it may be placed base up in one and base down in the other to equalize the weight. The result from the patient's standpoint will be the same. In a large proportion of cases the incorporation of this with the refractive correction is all that will be necessary to make the patient happy.

On the other hand, if deficiency of convergence power exists, it will be necessary, in addition, to place the patient upon muscle exercises to increase convergence power. This calls for systematic training with prisms or stereoscopic exercises under careful supervision, by which

means convergence power may be increased to 40° or 50°.

The greatest difficulty in connection with muscle training is to get the coöperation of the patient. It becomes very tiresome to some people to continue a daily routine of exercises which may occupy 2 or 3 months of time, especially since the improvement usually is very gradual.

It is my custom to use prisms, base out, in a temporary frame placed over the patient's correcting lenses for exercising while he is seated 20 feet from a small source of light, as a candle flame. Starting with a 2° prism base out before each eye, he is told to drop them before the eyes and fuse the 2 images which may be seen. As soon as fusion occurs the frame should be raised and then immediately dropped, repeating the procedure as many times as possible in 5 minutes. This is to be done morning and evening for the same length of time. At the end of a week the patient should report to the examiner and, if no difficulty was experienced, he may be given a 3° prism before each eye, which is to be used in the same manner for another week. At intervals of a week the strength of glass is increased to 4°, 5°, and 6° before each eye and so on until 20° before each eye is being used. The increase is not usually greater than 2° or 3° at each change; in this way the muscles gradually increase in strength without becoming exhausted. The patient realizes the increase in vigor by the fact that for the first 2 or 3 days after each change the exercise is accompanied by a distinct sense of effort which becomes less marked at the end of each period of use. By the time the last pair of prisms is used, the muscles have gathered real strength and vigor. It is rare that the exercises have to be repeated, at least for several years.

The reasons for presenting this subject are as follows: (1) Although refraction to-day may be done better than ever before, attention to the state of the muscles is neglected, either because of pressure of routine refraction or because a practical and simple working test for uncovering latent hyperphoria is not mastered and correlated; (2) relief of asthenopic symptoms is not obtained in many cases without attention to and correction of functional muscle abnormalities; and (3) convergence insufficiencies can be corrected only by systematic exercises continued over a sufficient length of time to enable muscular vigor to be restored. To do this, the examiner must realize the value of such procedures and must impress the patient with the importance of carrying them out faithfully.

ABSTRACT OF DISCUSSION

LEWIS P. GLOVER (Altoona): Anyone who does a muscle balance test with each patient will agree with Dr. Appleman. It is truly a part of the examination and often explains symptoms which cannot be related to the eye in any other way. The School of Army Aviation Medicine now rejects any flier with an esophoria of more than 10° for distance, or more than 4° when associated with one diopter of hyperopia. Exophoria of 5°, or 2° when the angle of convergence is less than 50° for distance, or esophoria of 12° for near are immediate causes for rejection. A hyperopia of more than ½° also rejects the flier. The school has found that no person can withstand the strain of flying under these conditions. Possibly flying is a more strenuous occupation as far as the eyes are concerned than most, but that of the individual at close work all day is easily comparable. It is in this class that muscle training is of the greatest value.

Hyperphoria is easily corrected with a prism in the glass. Exophoria is the bugbear and sometimes requires months of prism exercise before relief is given. I use a somewhat different method for testing divergence and convergence power and find it less of a strain on the patient. A red glass is placed before one eye which breaks down the fusion power more quickly. With this, an average of 4° divergence and 12° convergence is normal. The same type of glass is used in prism exercise. Once the patient can fuse 2 white images a red glass is then used until the red and white images fuse. This saves the patient many trips for new prisms and as it is much more difficult, builds up the reserve more rapidly.

In muscle cases I have sometimes found it advisable to order hook-on prisms over the patient's glasses to give temporary relief until such a time as sufficient reserve is present. This has worked very satisfactorily. One patient at present uses prisms for near only, as the balance for distance is normal, which proves the need of the Maddox test both for far and near.

I have never used Dr. Appleman's method of high prism in testing with the Maddox rod, but believe it could readily show latent errors. My only fear would be that the patient might try to overcome the high prism and give a false result.

MERWYN M. WILLIAMS (Scranton): We do not realize fully the importance of the subject that Dr. Appleman has so aptly placed before us.

In regard to obtaining the muscle balance in the vertical and the horizontal tests, it should be remembered that one observation is not sufficient. There is need for repeated examinations of the muscle imbalance, sometimes day after day, sometimes week after week. A patient may appear one day with 2° of exophoria, and another day with 10°. It is very important, in order to cope successfully with the particular case in hand, to have information as to whether the variation is sufficiently great to warrant particular attention being paid to it.

Dr. Appleman has mentioned the presence of occipital pain among the symptoms of muscle imbalance, especially exophoria. Suboccipital pains, even neck pains and cervical pains down to the shoulders, are frequently complained of by these patients.

It is necessary to observe carefully and make a correct estimate of the amount of phoria present, but it is also important, when possible, to discover the cause of the phoria. A patient observed 6 or 8 years ago

presented a sudden exophoria, followed later by exotropia and diplopia. Removal of the left upper canine tooth was followed in 48 hours by a return of some function in this particular muscle, which happened to be the external rectus of the left eye. Within a week the muscle strength had begun to return and within 3 weeks the full function had returned to the muscle. The cause of the phorias should be taken into consideration in handling these cases.

Long-standing cases of exotropia, especially in individuals with myopia, with a fair or good amount of vision, should be given a trial of orthoptic treatment before operation is attempted. Ten years ago a woman reported that 15 years before, because of the presence of exotropia, she had been advised to have an operation, that it was necessary because of extreme "turning out of the eyes." Prisms, base in, had to be used in order to obtain binocular single vision. Beginning with the combination of prisms, base in, with small degrees of prisms, base out, for exercising, binocular vision was restored permanently and the exotropia has disappeared. She has gone 10 years with not more than 3° or 4° of exophoria, all because of the persistence of 6 weeks to 2 months of intensive training.

CHARLES E. G. SHANNON (Philadelphia): In connection with the test of hyperphoria with the Maddox rod, I have noted for many years that frequently the phoria shown with the Maddox rod over one eye did not correspond with the phoria shown with the Maddox rod over the other eye. I sought vainly an explanation for this phenomenon.

Recently, however, Dr. McAndrews called my attention to the fact that in most people there is what is known as a dominant eye. This eye is really the fixing eye while the fellow eye is inclined to vary in its position. Consequently, with the Maddox rod over the dominant eye, the streak would tend to pass through the light; with the Maddox rod over the nondominant

eye, the streak would have a variable position. In correcting a hyperphoria, therefore, the prism should be placed over the nondominant eye and in this way the dominant or fixing eye would not be interfered with.

DR. APPLEMAN (in closing): In regard to the discussion of Dr. Shannon, I have frequently noticed the same thing. With the Maddox rod before one eye it shows hyperphoria; before the other it shows something different in the near test. The decision as to the correction is based mainly upon what is found in the near test. Many will show nothing at all in the distance test, but will show much more in the near test. With the prism which overcomes the vertical deviation for near still in place, the patient is asked to look again at the distant light. This prism may show overcorrection, but the strength of the glass is reduced by half degrees until balance is again obtained. The result is usually greater than the first distance test, the difference between the 2 representing the latent error. It is upon the amount of latent error, in addition to the manifest, that the final correction is based.

In regard to Dr. Williams' repeated examinations, it is true that examinations should be repeated. My first tests are done before the mydriatic is used; then the mydriatic is used and the tests repeated for distance under the mydriatic, the results usually being entirely different from the previous test. A post-mydriatic test is always made in order to confirm the original test. I have had no difficulty with these 2 tests in satisfying myself as to the necessity or non-necessity for a vertical correction.

As to the cause of muscular imbalance, cases of the functional type are often of long duration and, unlike the case mentioned by Dr. Williams, the condition does not occur suddenly. Consequently, there is no reason to suspect that the imbalance is not due to prolonged close work, in which the little shown at first gradually increases as the near work continues.

MANAGEMENT OF CONVALESCENT CHILDREN*

EARL D. BOND, M.D., PHILADELPHIA

One excuse for a specialty in medicine is that a small group of physicians may work in a very restricted field and then carry back to general medicine any lessons they learn. The reason for presenting some observations from a special field of psychiatry is that the patients directly concerned resemble many in general practice and in the early and important stages will be treated not by psychiatrists but by the doctor nearest at hand.

The examination of 200 applications for young children for admission to the Franklin School of the Pennsylvania Hospital has brought the matter of convalescent care forcibly to my attention. In taking histories, interest centered upon how behavior disorders followed encephalitis or some other injury to the brain. In most cases

there had been a sudden attack of short duration with fever and neurologic signs, followed by a long stage with vague physical symptoms associated with restlessness or lethargy.

In the acute attack the family usually felt that they had had the interest and attention of the doctor and nurse or the hospital. In the prolonged convalescent period they usually and very decidedly felt that the doctor and nurse or hospital had given them no help. The subsequent histories of the patients show that the later period was more important than the acute attack. It is evident that this period loosely called convalescence demands to be handled better than it is now.

Some typical comments follow:

"As long as the fever lasted my doctor was fine. After it became normal and the child began to run

* Read before the General Meeting of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct 4, 1934.

around the doctor lost interest and did not come any more."

"When Johnnie began to get restless the doctor said to leave him alone and he would outgrow it."

"The doctor said never to cross him."

When a nurse had been in attendance she usually left as soon as the fever and other acute symptoms subsided.

In many cases it was evident that after the acute illness the child was spoiled by an over-solicitous family, with no warning voice raised to stop the training in bad habits. In some cases bad behavior in convalescence was allowed to disturb the whole family life and nobody seemed to realize what was happening.

In the Franklin School, where postencephalitic and other children have been brought for training, it has been noticed that when the children came soon after the acute attack reeducation was comparatively easy. This suggests that education applied at home by physicians and parents might accomplish good results. The following plan is suggested, each step of which is founded on actual clinical records.

1. When the physician sees in any acute illness of a child (infectious or traumatic) vague indications of cerebral involvement such as convulsions, delirium, or headaches, he should announce to the family the need of careful convalescent care under his supervision. Even in illnesses with no disturbing cerebral symptoms he might make the same suggestion if he believes that the child has been accustomed to getting his way too often or if he sees signs that the parents are getting ready to give up their previous good discipline. Naturally in making such an announcement the physician must avoid frightening parents by intimating that this is a desperate remedy for a dangerous condition; all he needs to say is that further supervision is necessary to get the child back to normal life as soon as possible.

2. As soon as the child begins to draw out of danger it is time to tell the family that they should plan to restore all the good habits which the child had acquired and which had been interrupted by the illness. Regularity in meals, sleep, and general habits should be considered more necessary than ever. The physician will find that he will usually be on the side of insisting that certain physical risks can be neglected; for instance, that it is better not to be too careful of a heart condition and so shut the child off from playing with other children.

In the case of a boy who 20 years ago had a heart murmur, the family and the school physician insisted that he be kept out of athletics, which was the one

healthful activity that the patient had. The result has been a life wasted by dissipation and the consumption of unbelievable amounts of bad alcohol. Incidentally his heart at present is in perfect condition.

In the case of a boy who at the age of 21 months had a mastoid and jugular vein resection, the interest of the special nurses and the family was so long focused upon him that he ever afterward expected too much of the world and as a consequence was drawn toward failure and mental disease.

3. To accomplish anything of value the family will have to adopt a long distance plan under the physician's guidance. Whatever is done to the child should be done with a view to what is good for the future, not to what is easiest for the moment. The physician will always be faced with the family's desire to have peace at the moment, to humor the child "so as not to bring on a convulsion." The family has to be convinced that humoring the child at the wrong time will not only bring on more trouble in the future but more convulsions.

4. Any such plan requires unity. All the family must pull together. There is nothing any convalescent child or any other child can do more easily than to play one person against another. The physician may occasionally have to visit the school in an effort to bring the teacher's attitude into line with that of the parents.

The foregoing suggestions cover very sketchily the care of convalescence from encephalitis or any similar process for the first 3 months. If at the end of this period the physician sees in the child the symptoms of intractability, disobedience, mawkish affection, and overactivity, he must go further to an estimate of the family's ability to handle a situation which will continue difficult. He will know that a mother whose hands are already full with other children and the home cannot manage an unusually difficult child unless she has a capable full-time helper. He must consider whether there is some relative who can take the child or some foster home to be found. Finally in desperate cases he must turn, as soon as possible, to an appropriate institution.

The application of these suggestions can be widened to convalescence from any type of serious illness. Childhood itself is of course the time when character is built; it is the golden age of mental hygiene. Convalescence is an experience which tests character in a time when the individual is doubly sensitive to good or bad influences, a time when ordinary relationships to father and mother are apt to be disturbed. The one person who can help the family is the physician who was called to treat the illness. He alone has a knowledge of the physical processes at

work and he alone has an authority which he should not lay down too soon. And what is the use of saving a child's life and physical health if it is at the expense of character degeneration? The physician should enter into the convalescence with interest. He should remember that in many or most families there are concealed causes for children's delinquency which are brought out by the strain of any serious illness. Any contagious disease may make the physician aware of inconsistent handling by the mother. Any attack of heart disease may bring along a tendency for the family to overprotect and spoil a child. And any child who has been in the lime-light during illness naturally is going to keep that favored place if he can.

The child is lucky who has a physician who will stay with him during the convalescence and give consideration to these dangers and possibilities, who will see the child back to his normal life, who will keep an eye on the situations in the family, the neighborhood, and the school which are important to his patient.

No psychiatrist will get these chances; the brunt of this mental hygiene falls, and should fall, on the family physician. He is asked to further the 3 principles of habit formation laid down by a distinguished pediatricist:¹ (1) "The habit must be physiologically and psychologically sound"; (2) "the young child must be handled on a regular program"; (3) there must be a "consistent attitude toward the child." And yet "the child must not be robbed of his spontaneity

and individuality by too inflexible and impersonal a routine."

4401 Market Street.

REFERENCE

1. BLACKFAN, KENNETH D.: Committee A, White House Conference, 1930, p. 62.

ABSTRACT OF DISCUSSION

J. ALLEN JACKSON (Danville): In discussing this paper I should like to make comments as a psychiatrist in the field and as chairman of the Mental Hygiene Committee of The Medical Society of the State of Pennsylvania.

In case studies at the Danville State Hospital mental clinics in the field and in its child guidance clinics, we have long sensed the responsibility of the relationship of the family physician to the growing child in health, in sickness, and in periods of convalescence. Although we are cognizant of the heavy professional load the physicians already carry, we are urging them to find a little more time, if possible, to devote to the growing child's mental and physical needs both in health and in disease. This, of course, involves some background in child psychology and child-guidance principles. We realize the responsibility is not easily met by the general practitioner, and to be helpful in this respect we urge him to accompany the child to the clinic where he may study the case with us. I am referring to that type of patient whose family finances are such that professional psychiatric service cannot be provided otherwise.

The Mental Hygiene Committee realizes that the days of subjects dealing with generalization on mental hygiene are over, that the time has arrived when physicians are demanding something more concrete. To-day you have had something concrete. It is the hope of the committee to stress the relationship of the physician to the child during the coming year. The committee feels that in this relationship the physician can play his greatest rôle in preventive mental medicine.

URINARY ANOMALIES*†

Their Relation to Nephritis and Calculous Formation

A Report on 50 Cases

HENRY SANGREE, M.D., AND DAVID MORGAN, M.D., PHILADELPHIA

Urinary anomalies are among the most frequent anatomic malformations. Nephritis and calculous formations are frequently associated with urinary anomalies. This study is based on 50 cases, some of them operative. All were followed to necropsy with a complete histopathologic examination, and an abstract of the protocols was obtained.

This study includes 5 types of renal anomalies: 24 cases of duplication of ureters on one side

and one of left-sided triplication of the ureters, 3 of bilateral duplication, 4 of horseshoe kidney, 4 of hypogenesis or aplasia of one kidney, and 14 of congenital solitary kidneys which have only one pelvis in the ureter and one ureteral orifice. The frequency of these anomalies among 15,059 necropsies was as follows: Congenital solitary kidney, 14; hypogenesis, 4; horseshoe kidney, 17; bilateral duplication of ureters, 3; unilateral duplication of ureters, 59; triplication of the ureters, one.

Campbell in 12,080 children's necropsies found cases of congenital solitary kidney and hypogenesis, or aplasia, each 21 times; horseshoe

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† From the Departments of Urology and Pathology of the University of Pennsylvania Medical School, Jefferson Medical College, and Philadelphia General Hospital.

kidney, about 34; complete bilateral duplication, 3; and unilateral duplication, 604.

In the most common anomaly, unilateral duplication, 12 cases occurred on the left side and 12 on the right, making a 50 per cent distribution. This would correspond with the findings of Hicks of the Lahey clinic, who reported 6 cases—3 left-sided and 3 right-sided duplication of pelves and ureters. In this series of 24 cases of duplication and one case of triplication, incomplete duplication occurred in 3 cases, fusion taking place about 1 to 1.5 cm. from the bladder and then opening as one ureteral orifice. In the single case of unilateral triplication the ureters fused about 7.5 cm. above the bladder to form one ureter and one ureteral orifice. Three patients had bilateral duplication and each of these presented a severe type of chronic nephritis.

Hyman reports a right nephrectomy and left heminephrectomy done on a patient with bilateral double pelves and double ureters.

Four patients with hypoplastic or hypogenic kidneys are reported, 3 with infantile kidneys on the left side and 1 on the right. In this type the ureter was represented as a thin thread of tissue but each had a separate ureteral orifice in the bladder. These infantile kidneys were 3 to 6 times smaller than the one on the opposite side and, according to Gutierrez, all these cases show a marked decrease in function.

Congenital solitary kidney comprised 14 cases. These were differentiated from hypogenesis or aplasia as they each had complete absence of one kidney, one ureter, and one ureteral orifice. The suprarenal gland was absent in each as was also the blood supply on one side. In 6 cases the right kidney was absent and in 8 the left kidney. Four cases of horseshoe kidney were included in this series. These were of the symmetric type with fusion of the lower pole.

The question is asked, given the same conditions, do normal kidneys show the same percentage of nephritis as renal anomalies? Few renal

TABLE II
INCIDENCE BY TYPE OF ANOMALY

Type of anomaly	Number of cases
Unilateral duplication of ureter	24
Triplication of ureter	1
Bilateral duplication of ureter	3
Congenital solitary kidney	14
Hypogenesis of kidney	4
Horseshoe kidney	4

anomalies have the same conditions as normal kidneys. Concomitant anomalies of position, blood supply, and other genital anomalies make them potentially affected with some chronic disease. One of the clinical cases of fused kidney with a debilitating chronic nephritis followed to necropsy revealed normal ovaries but a complete absence of the Müllerian system.

Collins recorded 338 genital anomalies in 587 cases of congenital solitary kidney. In this series of 50 cases, 86 per cent showed by histologic examination varying types of chronic nephritis. Six showed acute nephritis, and one case had a normal parenchyma. In a previous paper the writer *et al.*, reporting on 25 cases of horseshoe kidney, showed chronic nephritis present in 80.5 per cent. In the most common renal anomaly, unilateral duplication of the pelves and ureters, chronic nephritis was present in 84 per cent of the cases. Perhaps no clinic of any size fails to observe a number of cases of duplication of ureters in a yearly period. Two cases seen clinically, one of chronic urethritis and one of marked cystitis, both rebellious to treatment, presented duplicated ureters on one side.

Bransford Lewis reports a case of persistent urethritis which was promptly cured on discovering an extra ureter containing gonorrheal pus. Crossing of the ureters was also present.

Crenshaw of the Mayo Clinic reports a case of continued purulent cystitis in which duplication was present with pyonephrosis of the upper half cured by heminephrectomy.

Walters and Priestley report a case of tuberculosis of the upper half of duplicated pelves and double ureters in which heminephrectomy affected a cure. In this case the ureters did not cross.

Dourmashkin reports a case of stone in an accessory ureter. Cystoscopy was performed 17 times before the diagnosis was made. The third ureteral orifice was obscured by a small fold of mucous membrane; desiccation of this knob-like projection covering the orifice and dilatation of the ureter caused the calculus to pass and

TABLE I
INCIDENCE BY AGE

Age of patients	Number of cases	Percentage
½ to 1	2	58%
1 to 20	1	
20 to 30	7	
30 to 40	7	
40 to 50	12	
50 to 60	9	42%
60 to 70	9	
70 to 74	3	

effected a cure. He stresses the value of using indigo carmine intravenously to diagnose duplication.

Rathbun reports a case of tuberculosis of the bladder with characteristic lesions about one ureteral orifice. Repeated cystoscopies showed clear urine. Finally, on one examination purulent urine was obtained containing tubercle bacilli, which was explained through the presence of a bifid ureter. He stresses the advantages of making a ureterogram by injecting the pyelographic fluid as the catheter is gradually withdrawn entirely out of the ureter and out of the bladder. With the advent of intravenous and oral urography, descending pyelograms should show more easily many of these obscure anomalies and aid in their diagnosis.

In regard to the search for calculi, we have been handicapped because of our failure to use roentgenography in all the specimens. In this series there is only 2 per cent incidence, this case having both bladder and kidney calculi. Campbell, in 12,080 necropsies on children under age 6, reports 35 cases or .29 per cent.

However, in our series of horseshoe kidneys in which roentgenologic study was made of each specimen, stones were demonstrated in 12 per cent of the cases. In 108 surgical cases of fused kidney Rathbun reported 29.4 per cent of calculi, and in 50 operative cases of horseshoe kidney Walters reported 58 per cent.

The age of the patients varied from 6 months to 74 years. Those with congenital solitary kidney lived longer than those with ureteral anomalies. Eight patients of the 14 with congenital solitary kidney lived beyond age 50, whereas only 9 patients of the 28 with ureteral anomalies lived beyond age 50. This is in accord with the findings of the majority of writers, who state that these types of renal anomalies are nearly always potentially affected with some chronic disease.

TABLE III
CAUSES OF DEATH

Cause	Number of cases
Pneumonia	14
Myocarditis	10
Uremia	6
Tuberculosis	6
Carcinoma of liver	4
Peritonitis	4
Nephritis	3
Cirrhosis of liver	2
Gangrene of foot	1
	50

TABLE IV
TYPES OF NEPHRITIS

Type	Number of cases	Percentage
Chronic interstitial nephritis	14	86%
Chronic parenchymatous nephritis	10	
Arteriosclerosis	8	
Chronic diffuse nephritis	6	
Pyonephrosis	2	
Infarct	2	
Chronic passive congestion	1	14%
Acute parenchymatous nephritis	5	
Acute diffuse nephritis	1	
Normal parenchyma	1	
	50	

Braasch says it is known that an anomalous kidney is more often affected by pathologic complications than a normal kidney. Hydronephrosis and stone are the lesions most commonly found and may be the direct result of anomaly. Among diseases listed in this series, pneumonia represented the greatest percentage—28 per cent. Cardiac conditions were 20 per cent and uremia and tuberculosis each 12 per cent.

SUMMARY

1. An anomalous condition of the urinary tract is nearly always potentially affected by some chronic disease.
2. An anomalous kidney is more often affected by pathologic complications than a normal kidney.
3. Interstitial nephritis, parenchymatous nephritis, pyonephrosis, and stone are most commonly found and may be the direct result of anomaly.
4. In this series the patients with congenital solitary kidney appeared to have a longer life span than those with renal or ureteral anomalies.
5. All patients with persistent urinary infection should have a careful cystoscopic and urographic examination for an anomalous condition.
6. Nephralgia of obscure etiology frequently is observed with urinary anomalies.

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ABSTRACT OF DISCUSSION

WILLARD H. KINNEY (Philadelphia): It is interesting to note the types of renal anomalies. The classifications of Gutierrez and Gerard are divided into symmetric and asymmetric types. The symmetric type is divided into fusion by the lower pole, or the long kidney, and fusion by the upper pole, which is a rare type. The asymmetric type includes the sigmoid kidney, the L kidney, the cake kidney, the disk kidney, the unilateral fused kidneys, and fusion without form. All

these differ from a congenital solitary kidney because they have 2 distinct pelves and 2 distinct ureters. Morgan considers that the malformation occurs between the fifth and seventh weeks of intra-uterine life. The essayists do not agree with many writers in considering that the unilateral fused kidney is composed of the fusion of a large and small kidney late in embryonic life.

All types of nephritis should be most carefully studied. Any form of infection along the urinary tract, infections of the urethra, prostate, seminal vesicles, and bladder, should be most carefully investigated. This can be accomplished only by an exhaustive cystoscopic examination with careful roentgen-ray and pyelographic studies. In this way many obscure and obstinate conditions can be disclosed. One cannot stress too strongly the advantage of coöperation between the internist, the

urologist, the roentgenologist, and the pathologist in successfully diagnosing many obscure cases. No study can be considered complete without a prostatic examination both by palpation and cystoscope. Careful cultural studies of the prostatic and seminal secretions are also important. Many pathologists insist on careful dissection of the kidney for clarifying obscure lesions. It is always well to preserve the kidneys, ureters, and bladder in one specimen. Conservative surgery, such as heminephrectomy, is often attended with excellent results, in preference to total nephrectomy. It is interesting to note the many cases of anomalous vessels. One finds aberrant vessels in about 25 per cent of the kidneys operated upon. These anomalies often cause interference in drainage, and infection ensues with resultant nephritic changes and calculous formation.

ACUTE ENDEMIC SORE THROAT*†

Report of Cases

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The above title was submitted early to the secretary of this section to cover a series of cases of virulent angina admitted to the Geisinger Hospital for treatment. We were at a loss to understand the exact nature of the condition until several cases were studied. It was soon noted that this was an unusual condition and with the aid of the laboratory the disease was found to be fusospirochetal angina.

Fusospirochetal angina has appeared in the literature sporadically for about 40 years, and many investigators have devoted years to the study of the group of organisms found regularly in this condition. In 1893 Rauchfus demonstrated pointed bacilli and spirilla in ulceromembranous angina, and photographs appear identical with those described by subsequent writers. In 1894 Plaut described the organisms in 5 cases of ulcerous angina. In 1896 Vincent described fusiform bacilli and large spirilla in cases of hospital gangrene and stated that the same organisms were found in certain anginas of ulcerative type. In 1897 Bernheim reported 30 cases of stomatitis and angina, in all of which he had found fusiform bacilli and spirilla. He appears to have been the first to point out the etiologic identity of certain cases of stomatitis and angina. These early reports have been followed by a large number of corroborative observations which testify to the occurrence of fusiform bacilli and spirilla in large numbers in certain cases of stomatitis and angina.

The failure to recognize the true nature of

this disease has been due to neglect in making direct examinations of the exudate from the pseudomembranous lesions of the mouth and throat. It has been proved that the outer layers of exudate are made up of debris and many varieties of organisms, but it is in the comparatively clean tissue of the ulcerations themselves that spirilla and fusiform bacilli, one or both, are to be found. These 2 organisms, the spirillum particularly, have been called opportunists. They are always to be found in the forefront of these angina cases, particularly in the crater and along the edges of the ulceration. Therefore, care must be taken to get underneath the superimposed heavy exudate in order to secure smears and cultures.

The controversy as to whether the ordinary types of organisms or the spirilla and fusiform bacilli are the primary invaders still remains unsettled. Nevertheless, the rapid appearance of ulceration with the typical foul, grayish slough leads to the belief that the condition is at least a symbiotic process. Spirilla and fusiform bacilli are rarely found alone. Cocci of various types are present constantly and in our cases the streptococcus invariably has been found, particularly the viridans and hemolytic types.

Smith worked out the bacteriology of these angina patients and found 4 varieties of spirochetes: *Treponema macrodentum*, *Treponema microdentum*, *Treponema vincenti*, and *Treponema buccalis*.

The fusiform bacilli are of 2 types—large rapidly motile and small nonmotile. Sometimes a large spirillum, probably identical with the *Spirillum sputigenum* of Miller, is present in small numbers. There is also usually present a

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small vibrio, cocci in pairs, tetrads, and in chains, with Vincent's spirilla and large fusiform bacilli predominating. Smith concludes that fusospirochetal disease of the lungs can be caused by organisms commonly associated with Vincent's angina and that the pulmonary lesions are probably due to symbiosis of a spirochete, a fusiform bacillus, a vibrio, and a coccus. It would certainly appear that in our own cases the initial lesion was an ulceration due to spirilla and fusiform bacilli with secondary or accompanying invasion by the streptococcus and other organisms.

These organisms occur in abscesses around the mouth, in subpectoral abscess, otitis media, mastoiditis, bronchiectatic cavities, and sinusitis; in fact, no part of the body is free from invasion.

The question of the Wassermann reaction often arises in these cases. The literature would lead to the belief that it is negative unless syphilis really exists. Recently a patient who had extensive involvement of the right half of the roof of the mouth with loosening of all of the teeth on that side gave a positive serologic reaction which has been negative on repeated examinations since recovery from the stomatitis. This case of fusospirochetal stomatitis presented a skin reaction consisting of umbilicated blebs mentioned in the literature as a frequent accompaniment of this disease.

Seven cases have been carefully selected from a group of 20 patients who were treated in the Geisinger Hospital between Jan. 1 and Sept. 1, 1934. There were probably other cases that could have been included, but they lacked one or more of the important findings of fusospirochetal angina.

There were several outstanding features in these 7 cases. The early symptoms were comparatively mild. Sore throat, with occasionally nausea and vomiting, and moderate fever were the chief complaints. The swelling in the neck on one or both sides seemed to be the alarming symptom to both the family physician and parents. Along with this latter condition dyspnea developed rapidly, and 4 of these cases entered the hospital cyanotic and unconscious.

The obstruction was caused by 3 main factors—swelling of the cellular elements of the neck that was not an adenitis although the cervical glands were enlarged, a heavy grayish exudate covering extensive ulceration of the tonsillar region and pharynx, and a tremendous edema of the pharyngeal and laryngeal mucosa. Dehydration due to inability to swallow sufficient fluids was an outstanding factor in practically all of these cases.

The foul odor accompanying this disease is

characteristic of fusospirochetal infection. It pervades the patient's room and can be detected as soon as the door is opened. The decomposing, necrotic slough commonly found is no doubt the chief cause of the offensive odor.

Four of these cases occurred during January, one in April, one in May, and the last reported case in August, 1934. There were 6 deaths in this group, the only patient to recover being one showing a considerably milder type of infection than the others. A short description of one of the cases follows:

CASE REPORT

M. C. N., female, age 18, admitted Jan. 12, 1934.

Chief Complaint: Sore throat, difficult breathing.

Family History: Negative.

Past History: Had always enjoyed excellent health.

Present Illness: Had a head cold and slight cough that began 5 days prior to admission, accompanied by sore throat. This became progressively worse in spite of treatment by the family physician. At the time of admission, patient was unconscious.

Physical Examination: Was very cyanotic, dyspneic, and unconscious. Pulse was weak, irregular, and very rapid. Respirations were markedly labored. There was an extremely foul odor about the body. The neck was swollen and firm on both sides. Mouth hygiene was very poor. There was marked edema of the tonsils, soft palate, and pharyngeal walls. All were covered by a thick grayish membrane.

On admission the temperature was 103° F., the pulse 128, and respirations 36.

Laboratory Data: Blood hemoglobin 84 per cent; red blood cells, 5,400,000; white blood cells, 21,700; neutrophils, 65; small lymphocytes, 6; metamyelocytes, 29. Smears from throat showed many spirilla and fusiform bacilli, gram-positive cocci, and gram-negative bacilli. Diphtheria smears and culture negative. Blood culture negative 10 days.

Course of Illness: Patient was in extremis on admission. A bronchoscope was passed and an orderly tracheotomy performed with relief of the dyspnea. Blood transfusion was done. Patient became conscious, took fluids freely, and cooperated well in treatment. Tube aspirated frequently with the catheter. Arsphenamine was applied locally to the throat. The patient gradually became weaker and died Jan. 13, 1934, 30 hours after admission.

The table which follows gives a graphic picture of the entire group of 7 cases in condensed form.

The only reason for presenting a report of this character is to call attention to the extreme malignancy of this infection when well-established, especially in children under age 10, and to point out some of the probable predisposing factors.

Certainly the end results in this series are not encouraging; in fact, we feel quite sure that the high mortality deterred several other patients from entering the hospital. All or most of them

TABLE SHOWING SYNOPSIS OF CASES

Patient	Sex	Age	Tonsils	Onset	Temperature (Degrees Fahrenheit)	Pulse	Respiration	Blood Studies	Throat Cultures—Smears	Results
L. K.	M	3	Yes	One week previous to admission	101	120	26(a)	Hg—75% RBC—4,270,000 WBC—77,600 N—64 SL—10 Met—12 P—6	Negative diphtheria (no smear) Gram—positive cocci in chains Spirilla and fusiform bacilli	Death in 30 hours Attempt to transfuse
W. K.	M	5	Yes	Few days	100 ^s	110	25(a)	Hg—69% RBC—3,990,000 WBC—35,400 N—82 SL—9 LL—1 Met—6-14	Negative diphtheria (smears and cultures) Gram—positive cocci in chains Spirilla and fusiform bacilli	Death in 2 days
M. N.	F	18	Yes	Five days Sore throat	103	128	36(a)	Hg—84% RBC—5,450,000 WBC—21,700 N—65 SL—6 Met—29	Negative diphtheria (smears and cultures) Vincent's spirilla Gram—positive cocci	Death in 30 hours Tracheotomy Transfusion
J. F.	F	8	Yes	Two days Sore throat	101 104	130 136	32(a) 28(h)	Hg—72% RBC—4,710,000 WBC—19,000 N—85 SL—6 Met—8-20	No diphtheria (smears and cultures) Gram—positive cocci Numerous fusiform Vincent's spirilla	Death in 2 days Tracheotomy
O. S.	M	6	Yes	Few days Sore throat	103	?	32(a)	Hg—80% RBC—4,990,000 WBC—64,650 N—26 SL—48 Mo—2 My—8 Met—15	No diphtheria (smears and cultures) Gram—positive cocci in chains Vincent's spirilla Many fusiform bacilli	Death in 1 hour
M. H.	F	7	Yes	One day Sore throat	102 ^s	120	26(a)	Hg—75% RBC—4,480,000 WBC—11,300 N—79 SL—12 LL—3 Met—6	No diphtheria (smears and cultures) Gram—positive cocci in chains Vincent's spirilla Fusiform bacilli	Recovery
G. N.	F	6	Yes	Two days Sore throat	101 ²	132	24(u)	Hg—69% RBC—3,670,000 WBC—16,800 N—79 SL—11 Met—10	No diphtheria (smears and cultures) Gram—positive cocci Vincent's spirilla Fusiform bacilli	Death in 6 days Tracheotomy Two transfusions

Hg—hemoglobin; RBC—red blood cells; WBC—white blood cells; N—neutrophils; SL—small lymphocytes; LL—large lymphocytes; Mo—monocytes; My—myelocytes; Met—metamyelocytes; P—premyelocytes.

died without definite proof of the true nature of the infection.

All of these cases showed poor dental hygiene. This included crowding of the teeth, dental caries and, last but not least, subgingival infection with or without deposits of tartar. The gum involvement consisted of redness and swelling of the gums with recession of the gingiva and the presence of the fusospirochetal group of organisms.

Not one of these patients had had the tonsils removed, which is perhaps of little significance on account of the low average age—5 years and 10 months for 6 cases, and 7 years and 7 months if the young adult is included. However, it is a fact that there is a reciprocal ebb and flow of

infection of this symbiotic type between these 2 vulnerable areas.

We have had many cases of acute Vincent's angina affecting only the tonsils and pillars, in which an accompanying subgingival infection was always to be found. These infections were fairly easily controlled by local measures, but so long as the tonsils remained it was practically impossible to influence the subgingival condition properly. With removal of the tonsils there was immediately a better response to treatment, and improvement in the condition of the gums could be maintained longer.

From the blood studies of these cases it may not be said that these children were very anemic as the hemoglobin average was 75 per cent, red

cells $4\frac{1}{2}$ millions, and color index 0.8+. The white cells showed an average of 34,700, which is a good response to an acute infection. There never was a leukopenia in any of these cases so that the suggestion that this condition might be agranulocytic angina is without foundation. The relatively high hemoglobin and red blood cell count might have been due in part to a concentration of the blood; but the color index average was 0.8+, showing a good balance in this respect. Briefly, the treatment consisted of maintaining the body fluids either by nasal catheter or intravenous injection, one or both up to a total of 3000 c.c. in 24 hours.

Blood transfusions were given to those patients who lived long enough for preparation. Local treatment of the throat with arspenamine and other drugs was carried out in those patients who were conscious and who did not struggle and resist too much.

Tracheotomy was required in 4 cases and the tube aspirated as often as necessary. It is believed that none of these patients died from suffocation.

All efforts were apparently futile as 6 of the 7 patients here reported died in an average time of 50 hours, and excluding 1 patient who lived 6 days the other 6 had an average residence in the hospital of 31 hours.

In the presence of a well-established subgingival infection the tonsils are almost invariably the hosts of spirilla and fusiform bacilli as well as their commonly found associates. Whether it is the result of the depression with its consequent improper and unbalanced diet, deficient in vitamin C, is not known; nevertheless, in our experience subgingival infection is on the increase. During the past 3 or 4 years many children between ages 3 and 6 have presented well-established subgingival infection with spirilla and fusiform bacilli. We have come to respect this condition as a real potential danger in tonsil work. Every patient showing subgingival infection receives 2 preoperative treatments, one the evening before and the other the morning of operation. These treatments are subsequently repeated in certain cases to protect the throats freshly operated upon from a later implantation of these organisms.

The subgingival and local throat treatments must be given in an efficient and thorough manner in order to reach the pockets which may be found around the teeth and in the depths of the tonsils.

SUMMARY

1. Subgingival infection and Vincent's angina are on the increase in the area served by the Geisinger Hospital.

2. Acute fusospirochetal angina attacking children and young adults is a very malignant disease.

3. As much attention should be paid to the subgingival infections occurring in children and young adults as is devoted to carious and crowded or impacted teeth.

4. Subgingival infections cannot be cured by mouth washes or gargles but must be reached by proper medicaments introduced into the pockets around the teeth.

5. Lack of a properly balanced diet with vitamin deficiency probably plays an important rôle in the development of this disease.

Geisinger Hospital.

ABSTRACT OF DISCUSSION

JOHN R. SIMPSON (Pittsburgh): Dr. Nebinger has presented a group of cases, the clinical cause and bacteriologic findings of which differ from anything with which I have come in contact. We must admit that Dr. Nebinger's cases do not belong to the ordinary Vincent's infection group, nor do they strictly conform to the picture of infections due to the streptococcus.

The problem for solution, however, seems to be bacteriologic. Some of my friends who are bacteriologists were consulted. The best they could do was to refer me to some standard works on bacteriology. I should like to read a quotation from the work by Zinsser and Bayne-Jones:

"Vincent's organisms usually are accompanied by other micro-organisms such as staphylococcus, streptococcus, and not infrequently diphtheria bacilli. This frequent association with other micro-organisms makes it impossible to decide conclusively that the fusiform bacilli and spirilla are the primary etiologic factors in these inflammations. It has been frequently suggested that they may be present as secondary invaders upon the soil prepared for them by other organisms."

The authors quote Smith (also quoted by Dr. Nebinger), who states that he has found evidence that the spirochetes of the mouth can by themselves produce disease in man. They consider them the most important member in a sympathetic group of anaerobic organisms which are capable of imitating a severe and fatal disease.

If we subscribe to the thought expressed in the quotation, then we shall believe that the streptococcus played the major rôle in Dr. Nebinger's cases. If we agree with Smith that fusospirochetal organisms can of themselves cause such a severe infection, then it is reasonable to say that the patients died of a Vincent's infection, or at least from a combination of micro-organisms in which the bacilli and spirilla played the chief part.

Last winter in Pittsburgh we had the privilege of hearing Dr. Smith of Duke University. I understand he has spent some years at Saranac Lake, at the Trudeau Sanatorium, and there became interested in the study of fusospirochetal infections because so many patients were sent there who did not show any tubercle bacilli in their sputum. One case he detailed was rather impressive. A physician, knowing that he was interested in the subject, asked him to see a case of Vincent's infection of the mouth and throat. While the swabs were being taken the patient coughed. Dr. Smith escaped but the other doctor did not, and in 2

or 3 days he was taken with a severe lung infection. Ordinarily it would have been considered pneumonia, but, because of the exposure a few days before, the sputum was examined and some organisms were found similar to those in the mouth of the patient examined. Dr. Smith gave this man arsphenamine, and he began to improve immediately. There must be something about Vincent's infections with which we are not familiar.

After hearing what the bacteriologists have to say we are about as far from the solution of the question as we were before. Perhaps clinicians can give as satisfactory answers as the bacteriologists.

The cases of Vincent's infection which we see usually are insidious in onset and run a mild course, with few

constitutional symptoms. They may be rebellious to treatment, but the patient rarely dies. On the other hand, we have all seen rapidly developing infections due to the streptococcus, with profound constitutional symptoms, terminating in death in from one to a few days. I need only mention Ludwig's angina and the streptococcus infections of the respiratory tract that are sometimes seen in children, so well described by Dr. Lyman Richards, which resist all efforts at treatment.

Dr. Nebinger's description of his cases corresponds pretty closely to the clinical course of infections due to the streptococcus. Still, the fact that there were Vincent's lesions and organisms present cannot be entirely ignored.

PRIMARY GRANULOCYTOPENIA*†

GEORGE J. KASTLIN, M.D., PITTSBURGH

The attention of the profession in recent years has been directed to a disease state which has come to be called agranulocytosis or granulocytopenia. A brief review of the historic development dates back possibly to 1880, when Senator reported a fatal case of severe pharyngitis. Isolated cases of severe illness with decrease in the white blood cell count and decrease in neutrophils have appeared in the literature. These, in large part, were considered as disease curiosities. In 1907 Türk recognized a definite neutropenic blood picture in cases of sepsis and coined the term—sepsis agranulocytica.

In 1922 W. Schultz reported cases of unknown etiology in which ulcerative stomatitis was associated with neutropenia. He called the condition agranulocytic angina. It occurred in women of middle age and terminated fatally. In 1927 I reported 2 cases similar to those of Schultz and reviewed the literature of 43 cases. By this time opinions differed as to the mode of development. It appeared quite definitely that the granulocytic function of the bone marrow was first impaired and that the ulcer formation developed secondarily. Some believed that we were seeing a new disease entity while I and others believed that we were recognizing a biologic phenomenon induced by an unknown etiologic factor.

Since 1927 more than 500 cases have been reported. This wealth of data has resulted in recognition of many variants of the original pattern. It has also been the means of correlating cases of known etiology with cases of unknown etiology. The term granulocytopenia has been suggested to designate the general group of con-

ditions associated with neutropenia. Primary granulocytopenia represents agranulocytic angina and its clinical variations. From a clinical standpoint there is a very definite syndrome and at necropsy the pathologic findings are quite constant. The disease occurs in all age groups, from childhood to old age, and occurs principally in females.

Three quite definite forms are now recognized.

The acute form, which was originally described as agranulocytic angina, is usually severe and the mortality is high. Fever, severe toxemia, ulceration of the mouth and other mucous membranes, and rapid development of neutropenia without changes in the red blood cells or thrombocytes have been characteristic. Recently we have observed 5 such cases, 4 of which were of the acute fulminating type. The duration was from 3 to 15 days, all cases terminating fatally. The fifth case had an acute onset but it was mild in character. The white blood cell count did not fall below 2500 cells per cmm., and after a duration of 36 days the patient recovered. This case has been followed for 18 months, and there has been no recurrence.

The recurrent form was first described by Moore and Wieder. The interval between attacks may be short or it may be years. The individual attacks may be mild or severe, and typical acute attacks may occur. Recurring attacks are usually milder and shorter, and in the interval a low white blood cell count and relative neutropenia are usually present. Careful clinical study of this type of case has established the fact that a decrease in the granulocytes of the circulating blood occurs from 4 to 5 days before clinical manifestations of the disease are noted.

More recently a chronic neutropenia has been described. Kracke believes that approximately

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† From the Department of Medicine of Mercy Hospital, Pittsburgh, Pa.

10 per cent of patients may show such a condition. Symptoms of easy fatigue, weakness, malaise, *etc.*, are frequently present. These cases may develop an acute attack of a severe type. One case in our series is particularly interesting as representing a combined chronic and recurrent form. Five years before the acute illness, the blood count showed an actual decrease in neutrophils. The patient was well during this period. An acute illness with ulceration of the gums developed and was diagnosed Vincent's angina. The white blood cell count decreased to 800 per cmm. with almost complete absence of granulocytes. Recovery took place in 21 days. Recurrence developed in 3 days with a second recovery and then a gradual decline with death 2 months later.

There is a close relationship between the neutropenia of this condition and the blood changes of other clinical conditions such as aleukemic lymphatic leukemia, aplastic anemia, aplastic pernicious anemia, bizarre anemias, and sepsis. The blood response to such drugs as benzol, arsenic, and thorium, and to the roentgen ray is quite similar in some instances. Differentiation must be based on the following: (1) A careful history with special reference to contact with a possible etiologic agent; (2) physical examination; (3) detailed study of the blood with a blood examination daily or more frequently; (4) response to treatment; (5) necropsy examination in fatal cases.

In early reports great attention was paid to pathologic study of cases at necropsy. Absence of specific tissue changes and of demonstrable septic foci, and the presence of the typical acellular bone marrow are most important pathologic criteria. In recent years more intimate pathologic studies are often lacking and frequently a careful classification is not possible. Our present knowledge of etiology, although derived from a study of many cases, is still not well crystallized.

A constitutional tendency toward deficiency of granular cell development in the bone marrow has been suggested. Two such instances have occurred in our experience. One was mentioned previously; the other patient was a slightly built woman who had never been well and who was functionally under par in general. It may well be possible that the bone marrow in such persons is also functionally inadequate.

Chronic infection has been considered a possible factor. Acute neutropenic disease following operation, dental extraction, extreme fatigue, or exposure to infection, may be examples of this possibility. Hueper has suggested chronic gallbladder disease as a factor. One of our cases

is of this type, having been treated for known cholecystitis for 10 years. Bacteriologic studies from ulcers, blood cultures, and necropsy tissues in large numbers of cases have demonstrated no uniform results. Although bacteria or their products may have a definite influence on the development of the condition, bacteriologic studies are made on the organisms which are virtually invaders in the tissues in a secondary or terminal phase of the disease. The invasion of organisms into the blood stream is usually terminal.

Animal experimentation with bacteria from these cases has not clarified our understanding of the problem. The work of Dennis in producing blood changes in the rabbit by introducing a parchment capsule of bacteria in the peritoneum of the animal has stimulated further interest in this field. We have been conducting experiments with organisms recovered from our cases which will be reported later.

Of the drugs which are known to produce inhibition of granulocytic function, benzol is the most damaging. McCord points out that benzene poisoning seldom produces ulceration of mucous membranes and that the bleeding and coagulation time of the blood are usually prolonged. In other respects the acute manifestations are quite similar to granulocytopenia of unknown etiology. Arsenic given in therapeutic dosage may in certain persons produce an aplasia of bone marrow and acute disease with inflammation of the throat and neutropenia. Dodd and Wilkinson have reported such cases. The presence of a benzene ring in the arsenical drugs has been thought to be the damaging agent, although Farley states that many features in these cases are not typical of arsenical poisoning and that there must be other factors operating.

In 1932 Kracke, in a general review, stated that an etiologic factor for this condition might be found in common drugs containing a benzene derivative. Later in that year Madison and Squier reported cases of granulocytopenia following the taking of amidopyrine and certain barbitol drugs combined with amidopyrine or containing a benzene ring. These authors remarked that the frequency of granulocytopenia has increased with the popularity of these drugs in this country and in Germany, where the majority of cases have been discovered. Further, the condition occurs in patients under treatment for ill health and in physicians, nurses, or others who have the drugs readily available. In 14 cases reported by these authors all the patients had taken amidopyrine or barbitol drugs or both from 3 weeks to 10 months before acute illness. When the drug was continued during the acute illness the mortality was high (6), whereas 6 of

the 8 in whom the drugs were discontinued recovered. In 2 instances of recovery second attacks were produced by 5 grains of amidopyrine.

This observation was most important in that it opened a new channel of thought. Numerous case reports have appeared in which a history of the taking of drugs containing a benzene derivative has preceded acute manifestations of granulocytopenia. The drugs are so readily available and are taken so freely by laymen that a history of such drug consumption might be linked with any particular disease state. It appears most likely that we are dealing with a drug idiosyncrasy. Pepper has suggested an allergic factor. More definite clinical data and experimental proof are necessary. There is as yet insufficient evidence to indicate that the drugs are responsible for a specific effect in all of the cases so reported.

A number of interesting points are illustrated by our cases. In 4 cases of acute primary granulocytopenia there was no history of the taking of any drug. In the fifth case, the family physician prescribed 6 tablets of allonal (allylisopropylbarbituric acid with amidopyrine) for an apparently slight illness, to be taken one every third hour. It was only on most careful inquiry that it was learned that the patient, being opposed to the taking of medicine, did not take the first tablet until 2 days after acute symptoms were established. She refused to take the remaining 5 tablets. This case is cited as an example of the necessity of more than usual accuracy in obtaining the history of drug contact. In this instance had the drug been taken as prescribed, it would have been difficult to argue that it had not possibly been a factor in etiology. It is possible that in other cases the taking of a drug may be a coincidental occurrence.

In another case the patient, a physician, had taken a variety of amidopyrine and barbitol drugs habitually for years because of insomnia. At the onset of primary granulocytopenia the usual dosage of these drugs was continued. In spite of frequent daily administration of amytal compound (amytal with amidopyrine) and allonal, the white blood cell count returned from 800 per cmm. to normal and recovery. When recurrence developed and attention was directed to the above drugs, they were carefully withheld. Following a temporary recovery the patient's condition became rapidly worse and resulted in death. In this instance the drug in first analysis might have had a significant influence as an etiologic factor, but in final analysis played no part as an influence on the disease at hand.

In still another case, the patient had taken no

drug before or during a prolonged mild attack until during the period of recovery when allonal was given for restlessness.

These instances point out the difficulties in evaluating the possible effect of barbitol and amidopyrine drugs as etiologic factors in primary granulocytopenia. The use of drugs, which in themselves may not produce specific hematopoietic changes, may indirectly in combination with other factors be harmful to the hematopoietic apparatus. Detailed reports of cases may be of extreme value in correlating data. Until such time when more definite information is available, the prolonged use of amidopyrine and its combination with the barbiturates should be limited to patients under observation. The drugs should be withheld from patients with, or with any tendency toward leukopenia.

Treatment of primary granulocytopenia has been divided into the local care of ulcerative lesions, the general symptomatic care of the toxic state, and specific treatment to restore bone marrow function.

Local treatment consists of usual mouth cleanliness, the use of bactericidal solutions, and local application of an arsenic preparation in glycerine to ulcerated areas.

General care is directed to maintenance of normal water balance by oral, intravenous, or subcutaneous means. Nutrition in severe cases is difficult to maintain. We have used daily transfusions of whole blood to help in maintaining physical resistance during the period of 4 to 5 days required to restore bone marrow function. Blood transfusion is used primarily as replacement therapy for the depleted white blood cell function during the time when bone marrow stimulation is attempted by specific measures.

Pentnucleotide as recommended by Jackson has probably been the most widely used specific marrow stimulant. The preparation frequently produces severe reactions. In 2 cases a definite increase in granulocytes was observed following intense therapy. Roentgen ray, one-twentieth erythema dose, given daily for 2 to 4 days, must be used with caution. In our experience improvement in one case resulted in combination with pentnucleotide. Results in general have not been uniform. Recently whole yellow bone marrow has been prepared by Watkins with reports of unusual responses. Our use of this material has not been attended by success thus far. There appears to be no advantage in the use of small doses of arsenical drugs in therapy, and since the fear of the benzene ring has been raised they should not be used.

The development of a positive blood culture, a manifestation of breakdown of bacterial resist-

ance, defeats all attempts at specific therapy. Could such a breakdown be avoided by blood transfusion, *etc.*, a therapeutic opportunity remains. The evaluation of therapeutic success must be based on the curing of severe cases, for in mild cases spontaneous recovery is frequently seen. We must, therefore, distinguish between acute severe cases, in which the mortality is high, and mild cases, in which a therapeutic agent may appear effective in restoring health.

If the accumulating knowledge of granulocytopenia is to lead from confusion to simplicity, the distortion of function of the leukocytic apparatus must be considered in its relation to the hematopoietic system in general and this in turn to general body function.

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ABSTRACT OF DISCUSSION

BERNARD J. McCLOSKEY (Johnstown): In the midst of great enthusiasm and confusion over this syndrome

of granulocytopenia, we must keep an open mind and not make classifications too rigid in view of the numerous variations of the clinical manifestations and because of the overlapping of groups and the numerous suspicions as to causation.

Some attempt should be made to distinguish the primary agranulocytosis of Schultz from the larger group of cases of granulopenia termed secondary granulopenia, those which result from a rather definite cause such as infection, sepsis, irradiation with radium and roentgen ray, chemical poisoning particularly from benzol and arsphenamine, and various blood diseases.

Too many reports in the literature have been based entirely on clinical findings without due recognition of the bone marrow changes which are usually definite and characteristic in the primary condition.

Richard P. Custer of Philadelphia has described a relatively easy method for bone marrow biopsy and has pointed out the dangers, limitations, and value of the procedure. He prepared a table showing the variations of cellularity in different bones and indicated the liability to error in using certain other bones with a fatty marrow.

This condition will undoubtedly be placed on a more understandable basis when the bone marrow biopsy becomes more popular.

SPINAL CORD TUMORS*

Early Signs in Localization and Diagnosis

TEMPLE FAY, M.D., PHILADELPHIA

The diagnosis and localization of spinal cord lesions have become more frequent and less difficult in view of the more recent technical refinements employed by neurologists and neurosurgeons during the past few years.

There are, however, certain clinical manifestations which, if carefully analyzed, offer the possibility of early diagnosis and frequently recognition and accurate localization of such lesions before paralysis and anesthesia make the condition an obvious one.

Pain and paralysis (or weakness) are the common symptoms that bring the patient under a physician's care. Numbness, paresthesia, and sphincteric disturbance associated with either of the foregoing complaints require that an organic lesion of the spinal cord must be carefully ruled out before a satisfactory diagnosis may be made.

Pain as a root symptom may arise long before any of the other contributory signs of a spinal cord tumor. Its localized root radiation is usually considered by the attending physician as sciatica, renal colic, pleurisy, sacro-iliac involvement, lumbago, rheumatism, gallbladder pain, angina pectoris, brachial neuralgia, occipital neuralgia, *etc.*

In my series all of these diagnoses have appeared in the various lesions encountered, and in several instances fruitless abdominal explorations have been done upon patients, either in undue haste on the part of the surgeon or because of final desperation on the part of his medical confrere.

The group of patients presenting the symptoms of chronic root pain requires, more than any other group, a most detailed history as to onset and distribution of the pain, as well as a detailed physical and neurologic examination. Frequently the examiner will be able to piece together a story of typical spinal root symptoms in spite of the conflicting opinions of friends and former physicians who may have misinterpreted or temporarily altered the usual progressive manifestations of such a lesion.

Root pain is sharp, flashing, tearing, burning, and severe in character. It is anatomically referred to the cutaneous periphery and dermatome supplied by the root or roots involved, or deep into its visceral component. It is aggravated by coughing, sneezing, straining (at stool), and certain positions of extreme flexion, rotation, or extension of the spinal column. It is associated with a vasomotor disturbance (flushing, sweating, change in texture of skin) in the

* Read before the Section on Surgery of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 3, 1934.

peripheral segment supplied, and there may or may not be significant changes in the pilomotor responses, segmental and homolateral to the lesion.

As the violence and severity of the pain varies greatly, depending upon the location and extent of the lesion, the age, activity, and environment of the patient, as well as the individual's threshold for pain appreciation, the clinician must be on guard lest one group fail to impress him with the importance of the focal pain, and another convince him that it is out of all reason and probably functional in origin, or a pure psychalgia.

The following routine may throw much light upon the true nature of a persistent and fairly well focalized root pain.

1. Map out on the patient's skin surface the boundaries and directional radiation of the pain, as the patient demonstrates and experiences the location of distress. (A fountain pen or skin pencil may be used.)
2. Place the patient between the examiner and a good source of daylight (near window or door), so that the light is reflected from the body surface and reaches the examiner's eye at about an angle of 30° to 45°. If the patient is in a horizontal position (body surface exposed), the ex-

aminer will find that standing about 3 to 5 feet from the bed is the best position.

There will appear in the zone of true root irritation a vasomotor flushing, distinctly dusky in color, irregular in outline, sometimes patchy and evanescent, but strikingly different from the skin surfaces above or below the area of involvement. As these changes resemble the familiar flushing of the skin noted at points where restricting belts, irritative surfaces, adhesive, etc., have been against the skin, it is important that the examination be made at an appropriate interval following the removal of the clothing or allowance be made for these obvious local skin reactions.

The vasomotor sign disclosed by this examination may be confined to a single root (Fig. 1), or in cases in which a transverse myelitis has occurred take the form of a band or girdle, denoting the *upper level* of the lesion.

The sign has proved of such early and reliable value that every effort should be made to note and map out the changes seen in the skin color, texture, and appearance by this reflected light method.

The skin below the level of involvement gives a high sheen, like satin, whereas that above the root level involved resembles velvet in the light effect produced. The difference between the skin surfaces may be likened also to the effect of light reflected from a highly polished mahogany table and that which is softened by the use of a wax dressing.

The characteristic distribution of these vasomotor zones of flushing follows the pattern of the surface dermatomes (Fig. 2) and, when carefully mapped out, can be identified with the appropriate spinal roots and segments.

3. With the boundaries of the vasomotor sign marked on the skin surface, the examiner may draw a toothpick or safety pin (held like a pencil) over the skin surface, from below upward. The patient should have the eyes closed and be instructed to indicate any change or increase in the acuity of perception between the lower areas below the vasomotor sign, at the level of the sign, and above. This test is repeated, comparing one side with the other (back and front) as well as the various levels where changes are noted.

Above the level of the root involvement, the scratch (moderate pain) is clearly appreciated and recognized. (Normal.)

In the zone of flushing (vasomotor sign, see Fig. 2), the patient usually winces and

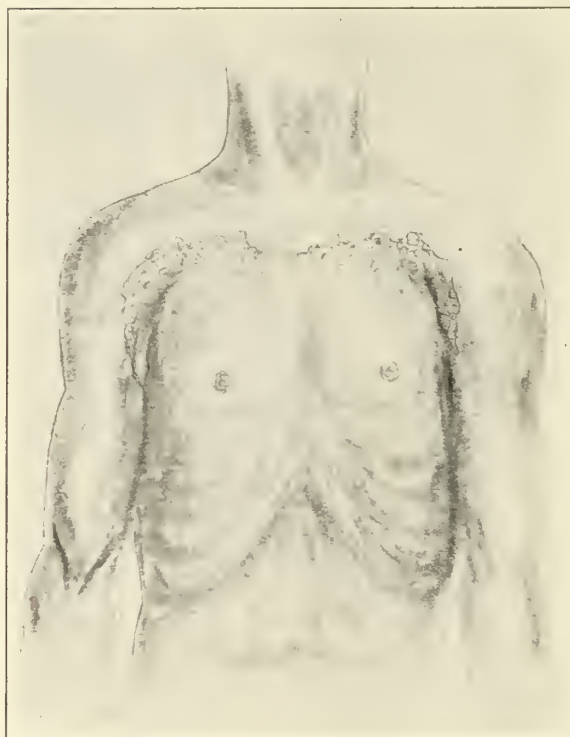


Fig. 1. Vasomotor level as seen on the patient's skin as a dusky zone of hyperemia involving the third thoracic dermatome over the chest surface and into the axilla.

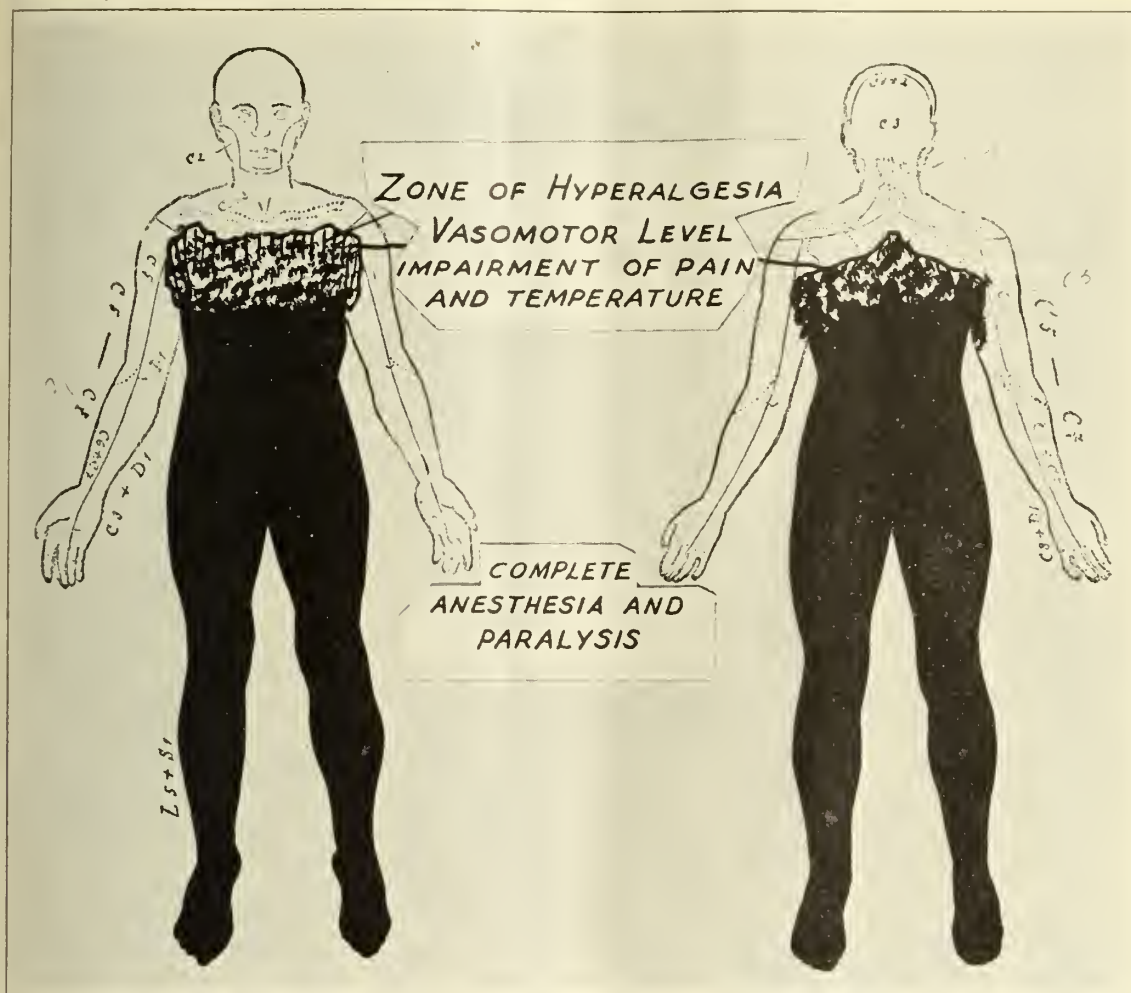


Fig. 2. Showing vasomotor level in relation to neurologic findings. The vasomotor level indicates the point of spinal root irritation and determines the correct level of operative intervention.

expresses the sensation of cutting, sharp pain, increased, scratch, *etc.* (Hyperalgesia.)

Below the vasomotor level, pain sense is usually distinctly diminished.

A pin point used with rapid and repeated slight pricks above, at, and below the vasomotor level will confirm the less painful scratch lines.

The examiner will be astonished to find boundaries of the change in pain sensation correspond to within a finger's breadth of the lines marked on the skin, indicating the vasomotor root zone of flushing and change in skin texture.

4. A study of the scratch line produced in the test often gives a clue to the upper level of the lesion. In the normal area above the lesion, the usual blush of the skin about the scratch line is noted. In the zone of vasomotor disturbance a wide, rather

wheel-like line appears with raised edges, whereas below the level little or no change in the skin is noted.

5. A pilomotor response (goose-flesh) may be obtained, if the temperature of the room is not too high, by pinching firmly the deep structures below the border of the sternomastoid muscle at the base of the neck (Thomas' sign). Following this manipulation, careful inspection will usually show an immediate rise of "goose-flesh" spreading over the trunk, abdomen, and legs. If there is a tumor, with compression of the spinal cord, the pilomotor response will cease abruptly at the level of the upper root involvement (vasomotor level) and the skin surfaces below will remain smooth.

The opposite side of the body is then tested in a similar manner, and the results of the 2 observations compared. It is possible to determine the side affected as well

as the root involved by this test alone if it is carefully carried out and found to be in accord with other signs.

If signs of spinal cord tumor are present and the pilomotor response occurs incompletely or is delayed below the vasomotor level, there is a strong presumption that the lesion lies within the cord substance (intramedullary glioma, syringomyelia, *etc.*) as some of the fibers escape destruction, which is characteristic of invasive lesions.

6. The level of spontaneous sweating or sweating induced by pilocarpin may give a clear zone of demarcation, above or below the level of the tumor. The patient (nude) is wrapped in a sheet and warm blankets for half an hour and then given one-fifth of a grain of pilocarpin hypodermically. When sweat appears on the face (5 to 15 minutes) the body surfaces are exposed and the surface skin areas observed. Sweating above the level of the tumor is profuse and similar to that observed on the face. There may be excessive response at and just above the vasomotor level, whereas below the dermatome level of the tumor the skin remains dry or only slightly affected. This method was used by Horsley and has proved reliable in 84 per cent of cases reported by Craig and Hare. It is a valuable contribu-

tory sign, confirming the upper vasomotor level and hence the highest point of extension of the lesion.

The conventional neurologic examination as to sensory, motor, and reflex disturbance is of accepted importance; but unfortunately from the standpoint of early diagnosis, these fundamental responses of the spinal cord system are late in their demonstrable involvement, and the unquestioned appearance of such signs only testifies to the severity and pathologic existence of the lesion.

The careful testing of temperature (heat and cold) response is by far the most difficult test, yet a most important sensory determination. Disturbances of temperature sense or diminution below the level of the lesion are more easily detected than slight changes in pain response. They hold a similar place with pain sense in the reliability of segmental disturbance and cord involvement.

Touch, vibration, and position senses are not only too widely distributed to be of much localizing value, but the distribution of touch and pressure sense in the cord is diffuse, and loss of these sensations indicates either a profound spinal lesion (transverse myelitis) or the complete destruction of 2 or more nerve roots supplying a given skin area.

Where motor signs exist (weakness, paralysis, increase of deep tendon reflexes, spasticity, a positive Babinski reflex, and clonus), careful testing of the pain and temperature sense on the side of the body *opposite* the paralysis will frequently disclose early signs of a cord lesion.

The fact that all the sensory and motor systems lie on the same side of the nervous structures only from the brain to the lower medulla is often overlooked. In cases in which pain and temperature disturbance exists on the same side as the motor manifestations, the lesion lies above the medulla. Below this point the principal motor fibers cross over in a large bundle to the side of the body which they eventually are to control. In this respect they correspond to the sensory fibers for tactile discrimination, vibration, and position (gnostic sense), whereas the pain and temperature fibers (vital sense) are distinctive in that they maintain a position from the opposite hemisphere of the brain and cord to the level of entry of their spinal root, each group crossing immediately from the root of origin and ascending in the anterolateral column of the cord.

Thus, the common sensations carried by the spinal nerves and roots split apart when they enter the cord (dissociation of sensation); pain

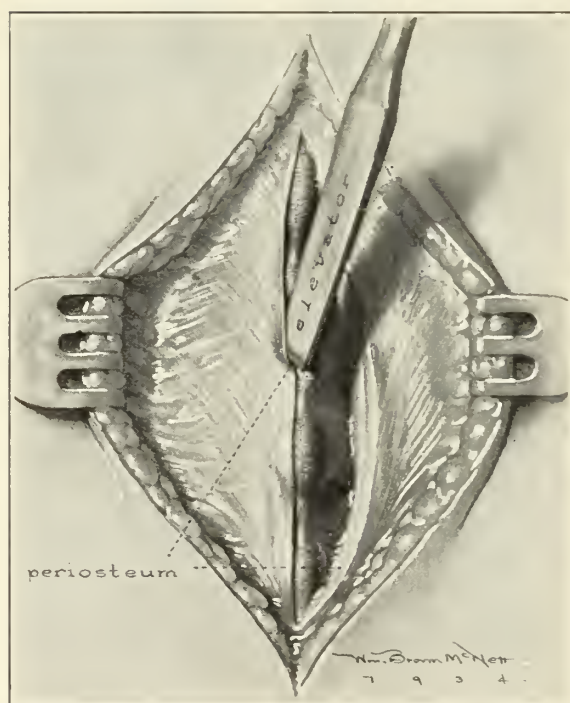


Fig. 3. Exposure of the deep fascia, with incision of the periosteum over the spinous tips. Subperiosteal dissection including muscle attachments to the periosteum, favoring an avascular field with preservation of a firm structure for subsequent reconstruction.

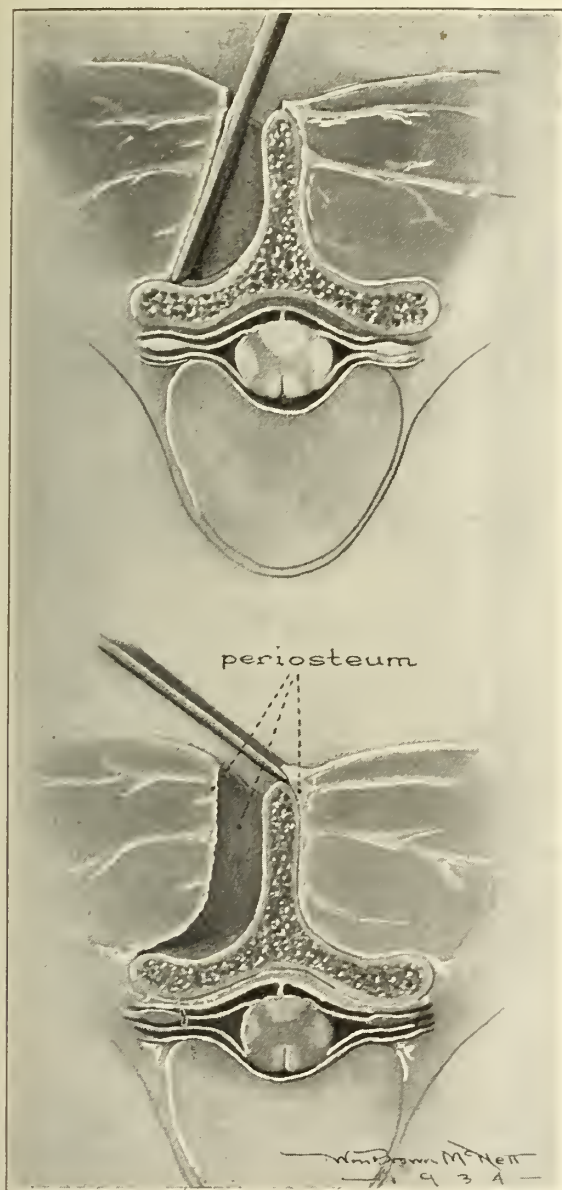


Fig. 4. Subperiosteal exposure of the lamina with preservation of the muscle bed attachments, and lateral extension of the dissection so as to include the laminar base and articular area.

and temperature senses cross immediately to the opposite side, whereas the more diffusely distributed senses (gnostic sense) ascend in the posterior columns of the *same side as that of the body surface* until the medulla is reached, and then cross over to lie not far from their former associates of the nerves and roots.

The fact that one of these systems of fibers may be involved without the other is the neurologist's strongest evidence that a focal cord lesion exists. A focal tumor arising on the left side of the cord, for instance, would be expected to produce motor and gnostic disturbance on the *same side* as the lesion, whereas impairment or

loss of pain and temperature sense would be found on the *opposite* body skin surfaces.

This typical Brown-Séquard symptom-complex may be observed in various degrees, if carefully sought for, in the majority of cord tumors. It is not common to have symmetrical and equal compression of the cord by a tumor unless centrally placed. In cases in which weakness or paralysis of cord origin occurs, careful testing for pain and temperature disturbance about the anal and gluteal skin surfaces of the *opposite side from the paralysis* will often disclose early changes of great significance. The pain and temperature fibers supplying the buttocks are the longest fibers in this system and hence must pass by a lesion in the cord even though it is near the filum terminale; these fibers are also the most superficially placed in the lateral cord substance and therefore are prone to early involvement from compression.

Mechanical adjuncts to localization and diagnosis have been devised. The most commonly used substance is an iodized oil (lipiodol) which is radiopaque when injected into the spinal canal. This may be rolled about the canal to determine the level of obstruction, as it tends to accumulate at the point of spinal block. Roentgen-ray films will then reveal the level of obstruction. There is no question about the value of this procedure in obscure cases, but it is attended by 2 distinct disadvantages. It cannot be reclaimed once injected, and it has been noted unabsorbed in the lower spinal sac, as a dense mass, 8 years following injection. In many cases a severe reaction follows, as it is irritating to the spinal roots. In 2 cases in the author's experience, marked inflammatory changes in the cauda equina were seen at operation more than a year after its initial use.

There is no justification for such a short cut to diagnosis by the use of iodized oil unless all other diagnostic measures fail. Someone has aptly said, "There are 2 diagnostic groups in this field to-day—neurologists and lipiodolists."

When careful neurologic tests are carried out and the focal root signs outlined above have been observed, the use of iodized oil is unnecessary. Spinal air injection is far superior in that it will indicate the true level of root involvement by pain reference and vasomotor reaction; it is harmless and quickly absorbed (48 hours), and can demonstrate the level of spinal block if stereoscopic roentgenograms are taken with a fine focus tube.

The Queckenstedt test is of distinct importance in order that a spinal block may be definitely established. Partial block and complete

block can be deduced from the manometric readings of spinal pressure taken simultaneously from the cisternal and lumbar sac, or frequently from the lumbar sac alone. Response to coughing and straining is present to some degree in obstruction of the lower lumbar cord, but the response becomes more nearly normal as the distance of the block increases; that is, high cervical cord lesions show practically no abnormal response of pressure through coughing and straining reactions.

When the jugular veins are compressed, intracranial pressure rises, and this should be immediately transmitted to the lumbar sac. If the pressure rises slowly or if there is no rise in pressure to jugular compression, a spinal block may be said to exist, providing technical procedure has been properly carried out.

The combination of these 2 tests gives evidence not only as to the degree of obstruction in the spinal canal, but frequently indicates the distance of the obstruction from the lower needle.

Elsberg and Dyke have pointed out the change of angle and position of the laminar facets observed in slow-growing compression types of

tumors of the spinal cord. Careful roentgen-ray studies, indicating the size and position of the laminar facets, and the measurements, when compared with the normal, may give a clue as to the location of an expanding lesion that does not involve the vertebral bodies or bony structures directly.

If pathologic involvement of the spinal cord is suspected, stereoscopic roentgen-ray films of the suspected area will frequently reveal changes in density of the vertebral bodies, such as demineralization, erosion, or increased lime-salt deposits. Such changes are familiar to the roentgenologist in cases of primary or metastatic pathologic involvement.

Careful study of the contour of the spinal canal, the laminae, and the spinous processes, however, may indicate compression erosion, which otherwise would escape ordinary detection (Fig. 6).

SURGICAL CONSIDERATIONS

In cases in which surgery is indicated and an exploratory laminectomy required, several important technical points should be emphasized.

Following the exposure of the posterior spinous processes by a midline incision, the muscle attachments to the spine should not be cut, torn, or pried away unless the operator is prepared to face much hemorrhage and subsequent shock to the patient. Too frequently an exposure of the lesion is obtained, but the time-consuming and careful removal of the tumor is handicapped or prevented by signs of shock in the patient and added bleeding from the tumor.

If the operator is willing to exercise more time and care in the early stage of the operation, by careful splitting of the periosteum over the tips of the spinous processes, and to carry out a subperiosteal separation of the muscle attachments, keeping exactly in the midline, practically no hemorrhage results and a clear exposure of the laminae is obtained to their lateral basic attachments.

If the patient is given 50 c.c. of 50 per cent glucose solution by vein just prior to the operation and if this initial stage is carried out by subperiosteal separation, subsequent shock does not occur.

This method of approach has an even more important consideration in the technic of closure. After the laminae and spinous processes have been removed, the reapproximation of the deep muscle layers is rendered easy and strong as the tough, dense periosteal surfaces may be brought together and with them the normal muscle attachments.

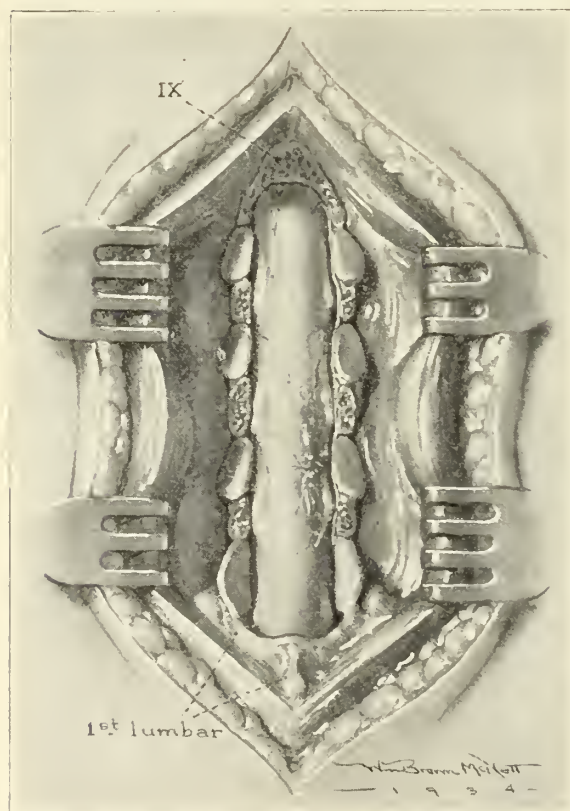


Fig. 5. Exposure following laminectomy, showing disarticulation of the lamina, with resection of the base pedicle, permitting a wide exposure of the dura and points of root emergence. Note change in angle of facet surfaces in thoracic vertebra as compared to lumbar vertebra. Location of tumor indicated by dural involvement.

Such a reapproximation makes a postoperative cast unnecessary at any time; drainage of the wound (except in abscess) is not required; and with the gradual new bone formation in the periosteal layers approximated, braces are no longer needed even for the cervical types encountered.

This single consideration in the first stage of the laminectomy approach is attended by so many favorable aspects that the additional time required for a careful subperiosteal separation of each lamina outweighs all other considerations of the rapid and mutilating methods frequently employed.

Another point of great importance to the operator is the space which he is able to obtain for inspection and exploration of the dural sac and cord after the laminae have been removed. Cutting through the arches is frequently followed by sharp bleeding from the paravertebral venous network over the dura. The use of a rongeur is slow and frequently unsatisfactory unless specially shaped instruments are at hand. Persistent bleeding at this stage occurs with each bite of the rongeur forceps. Saws present the danger of injury to the cord or vessels.

A study of the skeleton and articulating laminar facets permits the operator to expose these areas close to the transverse processes. By the use of the subperiosteal method these points are easily recognized. Disarticulation is simple with a pair of pointed laminectomy forceps, and rotation of the spinous process downward assists in this procedure. The base of the lamina can then be cut diagonally away from the axis of the spinal canal, permitting a wide exposure in a rapid and practically bloodless method. The lateral surfaces of the dura are exposed as well as the conical emergence of the root sheath. The cord can then be inspected, even on its anterior surfaces.

This method yields the maximum amount of exposure within the minimum amount of time as well as freedom from important vascular fields. It is important that the operator be familiar with the angle of the articulating facets to be encountered. In the lumbar area these facet surfaces present their edges directly upward, almost parallel to the spinal axis, whereas in the cervical and upper dorsal area they are flat and the direction of disarticulation must be almost at right angles to the cord. The facet surfaces change abruptly at the twelfth thoracic lamina from almost the perpendicular, in a slow progression to the horizontal plane, characteristic of the upper dorsal laminae. The cervical facets reach an angle even below the horizontal.

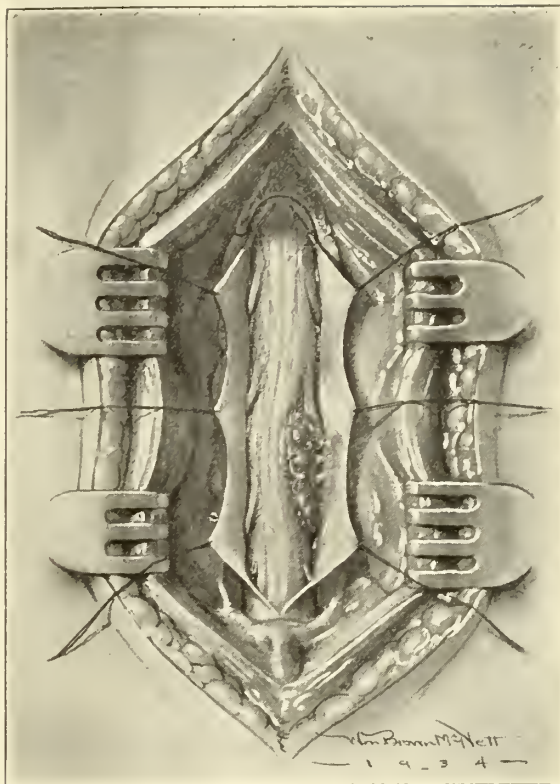


Fig. 6. Wide exposure obtained by this method, permitting an inspection of the anterior and posterior spinal roots, as well as lateral and anterior surface of the cord, facilitating removal of the tumor with its attachments.

SUMMARY

Certain important features in the early diagnosis and localization of spinal cord lesions have been stressed briefly. Aside from the routine and conventional studies undertaken in such cases, the considerations noted above stand out as factors which experience has shown frequently determine the successful outcome of the problem. In cases in which surgical intervention is required, much depends upon an adequate exposure with protection of the patient from hemorrhage and shock, as well as proper regard for postoperative complications and readjustments, by anatomic reconstruction of the muscle attachments.

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ABSTRACT OF DISCUSSION

ARTHUR E. DAVIS (Scranton): My discussion of this problem is from the standpoint of the general practitioner and it therefore concerns diagnosis. I should like to emphasize the one test that Dr. Fay spoke of as vasomotor phenomena because it relates to clinical medicine. I have observed 2 cases but only after he had pointed out the phenomena to me in the first case. I think I should probably be able to recognize the condition again without difficulty. It behooves me as a gen-

eral practitioner to say that we should examine our cases a little more closely. We should be able to recognize this condition if we make a greater endeavor to

do so, and consequently the patients will be sent to the neurologic surgeon a little earlier, in time to be relieved of their symptoms.

THE MANAGEMENT OF DIABETIC CHILDREN*

JOHN A. O'DONNELL, M.D., PITTSBURGH

Juvenile diabetes is still a rare condition but the total number of cases is increasing. It has been estimated that there are at least 1000 new cases each year among children in the United States.

Hospital experience makes one feel that this estimate is low because the majority of cases admitted to a general hospital are referred with other diagnoses and the diabetes is discovered during routine examination. One of our patients, admitted in coma, was referred with a diagnosis of pneumonia; 2 others were diagnosed acute appendicitis, a rather frequent error, because a common symptom of diabetic acidosis in children is severe pain in the abdomen.

The greatest advance in treatment was the discovery of insulin. This is shown by statistics reported by Joslin in 1931. In his group of cases the mortality rate in children seen before 1914 was 98 per cent; those seen from 1914 to 1922, during the period of undernutrition, showed a decrease to 69 per cent; while during the insulin period it was markedly reduced to 7 per cent.

In the control of juvenile diabetes heredity is an important factor. Although it has been very difficult to establish this rôle in our own small group of 23 cases, it has been fairly well established in the recent work of Pincus and White. In our group of 151 older patients there are 4 adults in the same family with diabetes. Both the father and mother of these patients succumbed to the disease. That the one sister is married to a nondiabetic and has 3 nondiabetic children merely proves the thesis that diabetes is a recessive mendelian characteristic and can be prevented if a diabetic is paired with an individual with no diabetic taint.

DIAGNOSIS OF JUVENILE DIABETES

The diagnosis of diabetes in childhood as in adult life is made on the basis of a persistent glycosuria and a hyperglycemia. The diagnosis is established on a fasting blood sugar determination of 0.14 per cent with a postprandial rise to 0.16 per cent accompanied by a glycosuria.

In children who have a persistent glycosuria with no rise in the fasting blood a blood sugar determination is taken one-half to one hour after a mixed meal or after a meal containing 50 gm. carbohydrate. Glucose tolerance tests are of definite value, but one must be careful because of the harm they may do and because the child before being referred has usually been restricted by the family physician which results in abnormal curves.

The differential diagnosis between uremia and diabetic coma is rather difficult to establish at times, for in both cases the nonprotein nitrogen is high; the blood sugar is moderately increased in uremia and markedly increased in diabetic coma. To illustrate, one patient was referred to the hospital with a nonprotein nitrogen of 150 and a blood sugar determination of 0.16 per cent. She had an anuria and subsequent necropsy proved that a very severe acute nephritis caused the uremia. The few drops of urine obtained at necropsy showed no glycosuria.

DIET OF DIABETIC CHILDREN

The diabetic child fared poorly on a diet with abnormal restriction of carbohydrate and the full allowance of protein and fat during the Naunyn period. He fared better during the period of undernutrition with restriction of carbohydrate, protein, and fat. During the insulin period he has done fairly well on the diets of Petró, Woodyatt, Priesel, and Wagner, which are commonly called the high fat diets, and on the diets of Sansum, Geylin, and Rabinowich, which are commonly called the high carbohydrate diets. There is a controversy at the present time about the value of these different types of diet, but it is sufficient to say that all these men claim fairly good results. Their value in the future will be determined. In our experience it has been found wiser to give the patient a reasonable amount of carbohydrate, constantly increasing it so that they may eat as nearly a normal diet as possible with sufficient insulin to maintain them. The types of degenerative lesions commonly seen in the older diabetic, if prevented in the child by any dietetic method, will inevitably determine the type of diet to be used.

* Read before the Section on Pediatrics of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 2, 1934.

Caloric Requirement.—The caloric requirement of the diabetic child runs parallel with the caloric requirement of the normal child. The total food given to any child must be adequate for basal metabolism, growth, and muscular activity. Basal heat production in this instance is usually expressed in total calories per 24 hours. Talbot estimates the basal metabolism for infants at birth at 50 calories per kg. of body weight and says that it decreases with age so that at age 13 it is 30 calories per kg. of body weight.

Holt and Howland estimate that 10 to 15 per cent must be added to the basal requirement for growth. Talbot believes that for the quiet child 15 per cent must be added to the basal requirement, whereas the normally active or extremely active child requires 25 to 40 per cent above the basal requirement for activity. White states that normal growth has occurred when her prescribed diets were from 30 to 50 per cent above the basal requirement. She estimates 10 per cent less for slight activity and 10 per cent more for extreme activity.

Practically, it might be stated that the average normal child during the first year of its life requires about 100 calories per kg. of body weight, from the second to the sixth year about 80 calories per kg., and from the sixth to the sixteenth year about 40 calories per kg. This takes care of the growth and activity factors in addition to the basal requirement. The average diabetic child grows and maintains itself well on a diet lower than would suffice for the normal child. We do not advocate undernutrition but we change the diet frequently so that the child is not too much overweight. The monthly visit of the diabetic child to the office or clinic gives us a better insight into the caloric requirement because all figures given for it are merely arbitrary and must be different for each individual.

Protein Allowance.—The protein allowance given the diabetic child must be sufficient to maintain nitrogen balance and therefore sufficient to insure growth. This amount is variable, but the consensus of opinion is that the child, age 1, requires 4 gm. protein per kg. of body weight and the child, age 15, requires about 1½ gm. protein per kg. of body weight. The child, age 4, requires 3 gm. and the child, age 8, about 2 gm. protein per kg. of body weight. The complete proteins are milk, eggs, fish, cheese, and meat whereas the incomplete proteins are the vegetables. In some clinics because of deficiency in amino-acids the vegetable protein is not counted; we count them in our diets as protein.

Carbohydrate Allowance.—The diabetic child does well on both low and high carbohydrate diets in different clinics. Our minimum diet for children is about 100 gm. carbohydrate and our maximum about 150 gm. carbohydrate for 24 hours. Previous to 1930 we used the type of diet advocated by Newburgh and Marsh, i. e., high fat; but one patient we came in contact with who was being treated by Drs. McKelvy and Mitchell and a visit to Joslin's clinic changed our opinion in this regard. This child on a low carbohydrate, high fat diet, although age 14, was 53 inches tall and weighed 72 pounds. The first year after the inauguration of the moderately high carbohydrate diet (150 gm.), he gained 22 pounds and added 4 inches to his height. Since its inception he has gained 13 inches in height and 60 pounds in weight. To-day he is 5 feet, 6 inches tall and weighs 132 pounds. This child is still underheight, but the change is remarkable when it is considered that he was 10 inches under the average height for his age when the diet was changed. The protein in this case was elevated, and this was also a factor in the increase in height.

In considering the question of tolerance for carbohydrate it has been our experience that immediately after adjustment there is a rise in tolerance which lessens after the first year. Two of our cases of apparently severe diabetes required no insulin the first year but, with increase in height and weight and caloric requirement, required it in increasing amounts. White feels that the increase in insulin ingestion or the decrease in carbohydrate tolerance is apparent only because the increase in growth must be taken into account.

Fat Allowance.—"High fat diets for the normal child lead to defective absorption, excretion of calcium, and retention of cholesterol. Deficiency leads to infection and rickets. In diabetes faulty utilization leads to acidosis, hypercholesterolemia, xanthoma, fatty infiltration of the liver, spleen and reticulo-endothelial system, and subintimal deposition. Before the advent of insulin the high fat diet was necessary; since the discovery of insulin the relative value of this diet has definitely diminished."¹

The fact that children develop the degenerative lesions of diabetes, such as xanthoma and arteriosclerosis of the extremities, and are more susceptible to acidosis leads to the belief that the faulty metabolism of fat is a definite factor in their causation. Diabetic coma is also associated with hypercholesteremia in juvenile cases, as is the case with xanthoma, cataract, and in the majority of the combinations of juvenile diabetes

and tuberculosis. Exogenous cholesterol is derived from ingested animal fat, and the complications noted are less apt to occur in the presence of low fat ingestion. For obvious reasons, therefore, we attempt in our diets to keep fat below 100 gm. per 24 hours.

Summation of Diet.—As protein is the most constant factor in all diets we estimate its amount first. The average diet for a child, age 5, taking all factors heretofore mentioned, should contain, if the child weighs 44 pounds, or 18 kg., approximately 44 gm. protein, 100 gm. carbohydrate, and 56 gm. fat with a total caloric value of 1080 calories. The child, age 10, who weighs 66 pounds requires eventually about 60 gm. protein, 120 gm. carbohydrate, and 87 gm. fat, with a total caloric value of 1503 calories.

USE OF INSULIN IN JUVENILE DIABETES

Because juvenile diabetics fared poorly on any type of diet before the discovery of insulin most pediatricians are still advocating too much their special fad in diet. It has been proved that any type of diet, if it meets all the rules of good nutrition, will work well in juvenile diabetes. If a child must take insulin it is just as easy to give him 20 units as 10 providing this amount is given in divided doses 2 or 3 times during the day; consequently, we prefer the higher carbohydrate feedings.

It is a safe rule to give all diabetic children insulin, and that is our practice at the present time. During the first year it is usually sufficient to give 2 doses, one before breakfast and one before the evening meal; but after the first year it is necessary to give a very small dose at bedtime if the fasting blood sugar determination is to be kept below 0.20 per cent.

In order that the hospitalization period may be lessened, we start the children on insulin the day of admission. The dose is at first very small, from 1 to 3 units before each meal. The urine is carefully collected and divided into 4 specimens for the 24 hours, the specimens paralleling the 4 insulin periods; that is, from breakfast to lunch, from lunch to dinner, from dinner to bedtime, and from bedtime to breakfast. These specimens are examined qualitatively and the insulin is increased if necessary. It requires about 2 weeks for adjustment. When it is complete the child is usually on 2 doses, but occasionally it is necessary to use 3 doses of insulin. When the total quantitative sugar for the 24 hours amounts to 0.5 per cent the patient is discharged.

The variability of activity in diabetic children when they are ambulatory makes their treatment

much more difficult than the treatment of adults. It is more difficult to keep them adjusted during school time because of this fact. With the diet definite the parents are usually instructed to vary their insulin slightly, depending upon their daily program in school.

RESULTS OF TREATMENT

The juvenile diabetic, if properly managed, lives a very normal life. He does not oppose the daily insulin injections, nor does he object to the discipline and routine of the type of life he must lead. Because of this discipline and routine he looks better than the normal child of his own age. He maintains a high standard mentally because he is usually of the intellectual type.

The 10 per cent of colored children in our group do not do as well as the other children; they are more difficult to manage and, if they are not kept under very close supervision, develop acidosis.

The diabetic children at puberty are also difficult to manage and it is best to permit them to work out their own problems to a certain extent. With a certain amount of encouragement they survive this period very well.

The ideal is to keep them constantly sugar-free, normal in height and weight for their age, and their blood cholesterol below 230 mg. per 100 c. c. of blood. The first factor is difficult of attainment but is frequently accomplished. This depends not only upon the full coöperation of the child himself, but also upon the coöperation and sympathy of the parents. Adjustment is not complete until the fasting blood sugar determination is less than 0.20 per cent.

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ABSTRACT OF DISCUSSION

JOHN M. HIGGINS (Sayre): Of particular importance is the question of relatively high carbohydrate diet. The average child can be better satisfied if he is given this type of diet, and that in itself is a point of great importance.

HOWARD ROOT (Boston, Mass.): The question of increase in the frequency of diabetes in childhood brings up the whole problem of the new social significance (the social economic aspect) of diabetes.

As to heredity, so many investigators have shown clear evidence that the predisposition to diabetes is inherited as a recessive characteristic according to the definite mendelian pattern that diabetes must be considered in terms of that scheme. The implication is that if a diabetic marries a diabetic, all their children will develop diabetes, provided they live long enough. I was interested in one case that Dr. O'Donnell men-

tioned, in which 2 diabetics married and had 4 children, all of whom are diabetic.

If a diabetic marries a carrier of the diabetic tendency who is not herself a diabetic at the time, one-half the children will have the predisposition. If 2 carriers of a diabetic tendency marry, one-fourth the children carry the predisposition. And if a diabetic marries a truly nondiabetic who has none of the diabetic disposition, none of the first generation will have diabetes although the next generation will carry it.

In a family with diabetes, if there are 5 children and one of them has the disease, which of the other 4 will carry the predisposition to the next generation, and how many of them will carry it? We do not know how to answer these questions, but it can be seen that the implication brings into the range of the problem a much larger number of people than have heretofore been considered. If we grant that there are between 400,000 and 500,000 actual diabetics in the United States and consider the children of those individuals, there are between 1,500,000 and 2,000,000 who will develop diabetes before they die. If that number is multiplied by the number of brothers and sisters, some idea is secured of the number of persons in the United States who are directly concerned with the problem regardless of whether they are themselves diabetic. They are directly concerned, and no one knows better than the pediatrician how much the mother of a diabetic is concerned or how much the child of a diabetic mother is concerned in this problem. Then, the number of people

who are directly concerned in this diabetic problem reaches 10,000,000, conservatively estimated.

Diabetes was once regarded as a disease of old age, due largely to arteriosclerosis and degeneration. There are people who still harbor that idea. Yet when recently, in the *American Journal of the Medical Sciences*, an analysis of 10,000 cases was made and studied by modern statistical methods, it became clear that the development of diabetes does not increase with age. Diabetes reaches a peak in the fifties, then the incidence declines. In other words, the susceptibility to diabetes does not increase but actually decreases with age, and a person is no more likely to get diabetes at age 70 than at age 20. Diabetes is becoming more and more a disease of youth. The time soon will come when, instead of using the cumbersome, indelicate method of urinalysis and blood and glucose tolerance tests, we shall be able to recognize diabetes in incipency before symptoms have developed. Then pediatricians will recognize the incipient cases so early that the era of the cure of diabetes will be at hand.

In Massachusetts it was found, in studying some 800 diabetic children, that tuberculosis develops more than 10 times as frequently in diabetic school children as in the nondiabetic school children, and in adolescence some 18 times as frequently. Here is an opportunity for study of the nutritional, chemical and metabolic factors in tuberculosis, and the susceptibility, change and resistance to tuberculosis which come in the child who develops diabetes.

INFECTION OF THE LUNG WITH ACTINOMYCES GRAMINIS*

Case Report

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The following case of actinomycosis of the lung is reported because of the relative rarity of the disease and because the patient was under observation throughout its course, from good health until death 3 years later. The progression of the disease by recurring short bouts of bronchopneumonia was striking, and in spite of repeated hospital admissions the diagnosis was not definitely made until necropsy.

COURSE OF THE DISEASE

The patient, an iron molder, first came under observation on admission to the Lancaster General Hospital, Sept. 5, 1930, at age 38, for a large traumatic abscess of the right leg. Recovery after incision was uneventful. There were absolutely no pulmonary symptoms and the blood count was normal at this time. He gave a history of gonococcal infection 20 years before, an attack of abdominal gripe lasting 8 weeks 7 years previously, and an attack of pleurisy 4 years previously, which confined him to bed for 2 weeks. His wife had diabetes but had borne 7 children, all of whom were in good health.

He was readmitted to the Lancaster General Hospital 9 months later, this time with severe cough, blood-

streaked expectoration, and drenching night sweats. He was weak and underweight. There were a few fine râles at the base of the left lung posteriorly. Roentgenograms of the lung showed increased root shadows especially on the left (Fig. 1). Tuberculosis was considered unlikely. Roentgenograms of the chest 2 weeks later were reported as showing a decided improvement in the left centralized density. The blood count was: Hemoglobin 75 per cent, red cells 4,250,000, white cells 15,850; differential count—polymorphonuclear cells 84 per cent, lymphocytes 13 per cent, monocytes 2 per cent, and eosinophils 1 per cent. With rest in bed the cough rapidly subsided, and the temperature, which had never risen above 100° F., had dropped to normal in 9 days.

There were 4 more admissions, hospitalization totaling about 6 months during the succeeding 18 months. The progression of the disease was by bouts of fever lasting from 4 days to 2 weeks, each one of which would leave the patient weaker, more emaciated, and less able to take proper nourishment. Clinically the attacks resembled severe bronchitis or bronchopneumonia with drenching night sweats, cough, and expectoration of a thick yellowish green sputum which was occasionally slightly blood-tinged. The highest temperatures during these attacks were usually 101° F., but during several attacks they reached 102° F. For the last 3 days of his life the temperature was not over 99.2° F. Pain persisted in the left side of the chest over a period of years, in fact ever since his first attack of pleurisy 8 years before death. A striking physical finding was

* Read before the Section on Medicine of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 2, 1934.



Fig. 1.—Roentgen ray of chest showing very early hilar involvement, June 30, 1931.



Fig. 2.—Lesion advanced. Snowflake lipiodol infiltration of right lower lobe, but no bronchiectasis, Oct. 28, 1933.

marked and progressive clubbing of the fingers and toes, with so-called "floating nail beds." These were quite noticeable as early as 14 months before his death. A year before death the patient had an attack of acute arthritis of a month's duration, affecting the ankles, wrists, elbows, and shoulders.

On Aug. 26, 1933, a single culture of the sputum showed mycelia but the type was not determined.

The patient was seen by many physicians and since all at first sought to rule out tuberculosis, a total of 41 specimens of sputum were examined for tubercle bacilli, all with negative results. Culture of the sputum

for tubercle bacilli was negative. The blood Wassermann reaction was negative on 3 different tests. The sedimentation rate was very rapid, quite similar to that in any acute infection. An agglutination test for undulant fever was negative. The urine was negative throughout except for an occasional faint trace of albumin and white cells from 0 to 40. During the last month there were a few granular casts. The blood count showed a progressive anemia, a month before death being as follows: Hemoglobin 63 per cent, red



Fig. 3.—Remains of lipiodol in right lower lobe and recent lipiodol in left lower lobe, Oct. 31, 1933.

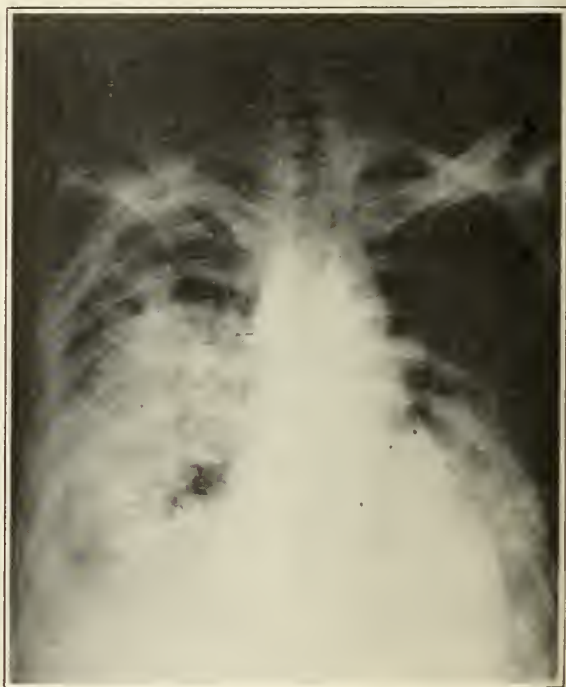


Fig. 4.—Massive actinomycosis of both lungs, Feb. 20, 1934. (Death March 18, 1934).

cells 3,320,000, white cells 16,700; differential count—polymorphonuclear cells 90 per cent, lymphocytes 9 per cent, and monocytes 1 per cent. There was a continuous slight leukocytosis, the highest count being the one just given and the lowest 11,200.

Roentgen-ray examinations of the chest showed prominent root shadows with variable central densities indicative of the mild recurring bronchopneumonic processes. Lipiodol injections into both lungs showed no bronchiectasis but unusual snowflake-like accumulations of the lipiodol at the terminations of the small bronchioles, evidently due to multiple small confluent abscess cavities of the air sacs themselves (Figs. 2 and 3). A later roentgenogram showed massive actinomycosis of both lung fields (Fig. 4).

Following progressive weakness the patient died from toxemia March 18, 1934.

NECROPSY EXAMINATION

The body at necropsy was much emaciated, with striking clubbing of fingers and toes. Both lungs were densely adherent to the chest wall. Numerous small pockets in the pleurae were filled with thin yellow fluid. It was estimated that the aggregate of the contents of these pockets was about 500 c.c. on the right and about 200 c.c. on the left side. The lungs could be removed only by stripping away large areas of the parietal pleura. Both lungs were consolidated and cut with increased resistance, the cut surfaces being studded with irregular but fairly sharply demarcated cavities averaging 1 to 2 cm. in diameter and filled with thick greenish-yellow material. No normal-appearing lung tissue was found anywhere except in the upper portions of both upper lobes. The bronchi contained considerable purulent material but the mucosa was pale and intact. The heart and abdominal contents showed the evidences of passive congestion but no other pathologic lesions of note.

BACTERIOLOGIC CHARACTERISTICS OF THE ORGANISM

Although mycelia were cultured once from the patient's sputum during life, the following observations were made on material obtained from the small abscess cavities found in the bases of the lungs at necropsy. Corn-meal agar cultures showed, after 48 hours at 37° C., many small dull opaque colonies which were very adherent to the surface of the media. On crystal-violet glycerine potato media after 6 days, there appeared a scant slightly elevated chalky-white growth, which after 2 weeks turned a light orange color. The organism obtained from these cultures was aerobic, nonmotile, gram-positive, not acid-fast, and did not form spores.

On subcultures the following characteristics were noted. There was a good growth in 24 hours on Löffler's blood serum, the color becoming yellowish-orange in a few days. Litmus milk

was turned very slightly alkaline in a week. There was no hemolysis on human blood agar. After 24 hours in broth there was a moderate growth with a granular sediment; after 72 hours there was a definite surface pellicle which was dull and scaly. There was no fermentation of glucose, lactose, saccharose, maltose, mannite, or levulose. Definite ray forms with radiating branching filaments were found in the gram stain of the Krainsky agar cultures (Figs. 5 and 6). Gram stains of other subcultures showed coccoid, mycelial, and bacillary forms. The surface growth from 72-hour cultures on Cornell agar was emulsified in saline and injected subcutaneously into a guinea pig. After 10 days no



Fig. 5.—*Actinomyces graminis*, low-power, Krainsky agar culture (X 200).

abscesses or other ill effects were noted. A similar injection was then given intracutaneously. Although no ill effects were noted, the animal was killed after 7 days and numerous small abscesses were found in the liver and mesentery. Cultures from the liver abscesses showed *Actinomyces* similar to those isolated from the patient's lung. From the cultural and morphologic characteristics it appears that the organism isolated from the lung was *Actinomyces graminis* as classified by Topley and Wilson.

TERMINOLOGY AND DISCUSSION

There has been some confusion regarding the classification of the fungi, especially the *Actinomyces*. In a report in 1920, the American Committee of Bacteriologists created a separate fami-



Fig. 6.—*Actinomyces graminis*, high-power, Krainsky agar culture (X 1200).

ily of Actinomycetaceae, to contain the genera *Actinobacillus*, *Leptothrix*, *Actinomyces*, and *Erysipelothrix*. Such generic terms as *Streptothrix*, *Cladothrix*, *Discomyces*, and *Nocardia* were eliminated. The most commonly described *Actinomyces* is the anaërobic type first isolated by Wolff and Israel in 1891, which is the "ray fungus" pathogenic to both man and cattle. It is easily recognized by the macroscopic sulphur granules exuded in pus from the thick fistulous granulation tissue characteristic of the disease. The fatal case reported is of interest because the

non-acid-fast aërobic type, first isolated from human actinomycosis by Bostroem in 1891, has been considered by Wright and others to be merely a saprophytic contaminant of actinomycotic lesions and not pathogenic. One of us (Klemmer) has reported elsewhere a fatal actinomycotic abscess of the cerebrum, which apparently originated as a pulmonary infection. Although not successfully cultured, this organism also was probably *Actinomyces graminis*. Biggart has recently reported a fatal case of primary infection of the lung by *Actinomyces graminis*. Although actinomycosis, when it has definitely invaded the lung, is practically always fatal regardless of the type of *Actinomyces* involved, it is interesting to note a recent report of recovery from pulmonary infection by *Actinomyces necrophorus* following operation and potassium iodide therapy.

SUMMARY

We have reported a fatal case of *Actinomyces graminis* infection limited entirely to the lung. The symptoms were entirely pulmonary and the organism was presumably aspirated. Clinically the case in many respects suggested tuberculosis and bronchiectasis, but both these conditions were positively excluded. The matter of diagnosis was important because it is possible that benefit might have resulted from the use of large doses of the iodides. Due to the fear of the possibility of concurrent tuberculosis, iodides were not employed. The *Actinomyces* recovered from the lung at necropsy were injected into a guinea pig and again obtained from abscesses in the animal's liver and mesentery.

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SECONDARY GLAUCOMA*

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There have been many notable contributions to the literature of ophthalmology on secondary glaucoma. Especially worthy is that of Priestly-Smith, published in 1891, which still remains a classic on this subject. Other excellent contributions have been made by Melville Black, George Coates, Treacher Collins, Feingold, Emil Fuchs, A. Fuchs, Parsons, Elliott, Wilder, and many others. However, far more attention has been given to primary glaucoma and, therefore, it seemed that a brief résumé of some of the more

important morbid conditions that give rise to secondary glaucoma might be of interest.

Priestly-Smith has referred to the fluctuations in the intra-ocular tension induced by the pulse beat, contraction of the lungs, contraction of the extra-ocular muscles, the forces of the blood stream, and the innervation of the fifth nerve. These fluctuations are, of course, temporary in character and are quickly compensated for by the out-flow through the filtration angle. He has further pointed out that the persistent excess of pressure is always due to an obstruction to the out-flow through the excretory ducts.

* Read before the Section on Eye, Ear, Nose, and Throat Diseases of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 4, 1935.

Elliott states that "there is no essential difference between primary and secondary glaucoma; that, in a case of increased tension, if we note some local antecedent disease, we refer to it as a case of secondary glaucoma; otherwise, as primary glaucoma. There is, unquestionably, a close association between primary and secondary glaucoma, and if a closer study were made many of the cases of so-called primary glaucoma would be relegated to the secondary group."

The following are a few of the morbid conditions that tend to bring about secondary glaucoma:

Iridocyclitis.—In most cases the secondary glaucoma is caused by adhesion of the iris to the posterior corneosclera. There are many instances in which inflammation of the uveal tract is apparently the one and only cause for the secondary glaucoma. It may begin as a choroiditis which advances forward, involving the ciliary body and the iris. This is one of the subtle conditions suggesting a strong connecting link between primary and secondary glaucoma. The diagnosis is made with the slit-lamp, by which deposits are noted on the posterior surface of the cornea and the anterior surface of the lens. Furthermore, the aqueous beam may show reluctance. In these cases the change in the composition of the aqueous or the presence of inflammatory cells and pigment granules provokes a blocking of the filtration angle.

The iridocyclitis is caused by a germ invasion, due perhaps to a focal infection or to some constitutional disease such as influenza, herpes zoster, syphilis, gonorrhea, or tuberculosis.

The treatment for this condition is to seek the cause and to combat the congestion by antiphlogistic measures such as daily sweat baths, irrigation, inunctions of mercury, and typhoid vaccine. Locally, hot fomentations and dionin seem indicated. Eserine and atropine are of doubtful value and we are inclined to use neither until the congestion is relieved. Should atropine be decided upon, be prepared to operate if the tension increases.

The search for the cause of iridocyclitis should be thoroughly carried out—constitutionally and serologically. Roentgenograms of the sinuses and teeth should be made and the throat examined for diseased tonsils.

Iridocyclitis with peripheral anterior synechiae.—In most instances, however, the glaucoma is secondary to a plastic iritis of traumatic origin. With exudation from the iris, organization takes place and fibrous tissue welds the anterior surface to the posterior corneosclera, producing anterior peripheral synechiae.

The surgical treatment of peripheral anterior synechiae, in addition to constitutional and local treatment, is a fistulizing operation—Lagrange or trephine—preferably the former.

Annular or complete posterior synechiae.—Repeated attacks of iridocyclitis may bring about this condition, thus presenting an impermeable barrier between the posterior and anterior chambers. The lymph secreted by the ciliary body cannot reach the anterior chamber and, by pressure, the iris is pushed forward to form an iris bombé. In addition, anterior periphery synechiae will be considered. Under the circumstances, the fluid cannot pass out through the filtration angle and the tension will rise. To overcome this condition, transfixion, complete or in part, iridectomy, or iridotomy is frequently helpful.

Perforation of the cornea from wounds or ulceration.—With perforation of the cornea from wounds or from ulceration, the iris may become entangled in the corneal opening. If the wound is large and irregular, the chamber may continue to leak, permitting the capsule of the lens, the ciliary body, and even vitreous to become matted to the corneal wound. The anterior chamber is shallowed and organized exudate blocks off the filtration angle.

Perforating wound with involvement of the lens.—With perforating wounds, in which the lens is injured, the swollen and disintegrating lens masses are extruded through the capsule and tend to block the filtration angle. Accidental rupture of the capsule of the lens in an iridectomy for glaucoma or preliminary to cataract extraction is occasionally seen and by the intumescence of the lens and pressure against the base of the iris, secondary glaucoma is produced. In this latter instance, an expression of the lens should be done at once to prevent peripheral anterior synechiae.

In the treatment of these cases, prophylaxis should be the first consideration. An early iridectomy, by lessening the drag on the imprisoned iris, might prevent the development of secondary glaucoma. Division of the synechial attachment is generally futile and possibly dangerous in the presence of sepsis.

With glaucoma established, the treatment already referred to in iridocyclitis should be carried out. With the eye quieted, either a large iridectomy—especially if a drag on the iris is suspected—or possibly a filtration scar operation should be performed. With involvement of the lens, the lens must be removed at once. If the pupil is blocked, an iridectomy should pre-

cede the extraction. A linear extraction generally proves acceptable.

Secondary glaucoma following cataract extraction.—Secondary glaucoma following cataract extraction is perhaps one of the most annoying conditions. It may be due to:

1. A down growth of epithelium along the track of the wound into the anterior chamber, which it lines completely, thus blocking all escape of fluid through the filtration angle. A filtration scar operation would probably prove ineffective.

2. A condition in which the angle of the anterior chamber remains widely open and the presence of an iridocyclitis in the usual manner.

3. Incarceration or adhesion of a portion of the iris or capsule to wound closes only a part of the filtration angle. Other factors must produce the glaucoma.

(a) If incarcerated in the wound, the wound is weakened and, by leakage, pathogenic germs may enter the anterior chamber producing an iridocyclitis; furthermore, with advancement of the cicatrization, a drag may be placed upon the ciliary body.

(b) With adhesion to the posterior lips of the wound, the wound may heal perfectly but a mechanism is provided to cause a drag on the ciliary body; as with incarceration, the plane of the iris and the capsule as well is drawn forward, rendering the filtration angle more acute and subject to closure, especially if the synechiae are far forward.

(c) Furthermore, one or both lips of the tear in the anterior capsule may become adherent to the wound.

(d) Annular posterior synechiae.

Toilet of the wound should be carried out with the greatest care (Knapp method). Treacher Collins points out the advantage of doing a sclerocorneal section instead of a corneal section as "there is less danger of advancing the iris and capsule and thus causing a synechia of either or both."

Division of the capsular synechiae and atropine are generally futile. The synechia, except on rare occasions, reforms at once. An iridectomy in the neighborhood of the impaction may be helpful. Posey advised that, if glaucoma comes on in a few days following the extraction, the section should be reopened and the impacted iris replaced.

In after-cataract the integrity of the vitreous is interfered with and secondary glaucoma induced by:

1. Liquid vitreous in the anterior chamber which cannot pass through the filtration angle. The anterior chamber should be tapped.

2. Vitreous streamers that reach into the filtration angle, blocking it. Eserine should be employed to draw the streamers from the angle by contracting the pupil.

3. Rupture of hyaloid membrane pushes vitreous forward, pressing against base of iris and thus blocking the angle. Filtration operation.

4. Bulging vitreous causes adhesion to margins of pupil. Laceration of occluding membrane and atropine.

Dislocation of lens.—Dislocation of the lens is due to indirect violence or to a penetrating injury. Removal of the lens is fraught with the greatest danger.

Dislocation of lens anteriorly.—Dislocation anteriorly is usually partial, with the lens remaining in the pupil, and due to a severe blow. The secondary glaucoma is due to pressure of the lens against the iris on one side and displaced vitreous on the other, and is very dangerous to remove. A trephine operation is probably the best procedure.

Dislocation of lens posteriorly.—Dislocation posteriorly may be due to an injury or to a couching operation. The lens is reclined backward, making direct pressure on the iris base below, thereby closing the angle. The fluid contents of the eye are displaced and caused to bulge forward above this, indirectly blocking the angle of the chamber in the neighborhood. Removal of the lens is extremely hazardous and it is advisable that it be left alone unless secondary glaucoma develops, in which case enucleation must be carried out.

1930 Chestnut Street.

ABSTRACT OF DISCUSSION

LEO F. McANDREWS (Philadelphia): The majority of cases of secondary glaucoma are due to lesions of the anterior segment of the eyeball such as perforating wounds and ulcers of the cornea. It often follows the operative wounds for cataract extraction.

In cases of prolapse of the iris the treatment advocated by Dr. Shannon offers an excellent prognosis. An O'Brien injection of novocaine into the orbicularis branch of the facial nerve prevents any pressure of the lids on the globe and hastens the formation of the anterior chamber.

Secondary glaucoma occasionally is seen in cases of interstitial keratitis, in ulcer serpens, and in herpes zoster ophthalmicus. The cases which cause the greatest worry and anxiety are those which follow iritis and iridocyclitis. The eyeball is red, painful, and hard. In some cases it is difficult to say on first examination whether the condition is a primary or secondary glaucoma. In these cases the slit lamp is of value. The

presence of descemetitis and the posterior synechiae and the history of the case aid in making the correct diagnosis.

The important question is: "Should mydriatics or miotics be used?" In such cases a study of the depth of the anterior chamber is recommended. If it is of normal depth, atropine should be used. The use of adrenalin packs under the upper lid and instillations of levoglucosan have not been satisfactory. We hesitate to use eserine because miotics increase the pain and hyperemia of the iris and ciliary body, and cause more exudate formation in the anterior chamber. In some of the cases at Jefferson Hospital the repeated use of typhoid vaccine intravenously, mercurial inunctions, and hypertonic solutions of glucose intravenously have caused the pupil to dilate, the pain to disappear, and the tension to drop to normal. Miotics are used only in cases of posttraumatic glaucoma with dislocation of the lens and intra-ocular hemorrhages.

In cases in which operative interference is imperative, the LaGrange sclerectomy has given excellent results.

CHARLES R. HEED (Philadelphia): In cases of occluded pupil with iris bombé, transfixion offers permanent relief of the glaucoma.

Last spring I had a woman patient, age 59, with a history of an attack of iritis in the right eye 10 years previously. The attack subsided under treatment, leaving a permanently dilated pupil. She had had no apparent pain or increased intra-ocular tension until a few weeks before I saw her. In this case there was an active descemetitis with deposits on the posterior surface of the cornea. The tension was not extremely high—32 by the Schiötz tonometer. The pupil was widely dilated, with 2 or 3 old posterior synechiae. I considered that such a case should receive atropine or duboisine in full strength. She received this 4 times a day, together with dionin, hot compresses, and sweats, and in a few days the tension decreased. She was discharged at the end of one week to continue active treatment at home and return for an iridectomy when all evidence of activity had subsided.

Several years ago I had a case of secondary glaucoma. The keratome struck the anterior capsule and a few days later secondary glaucoma developed. In such a case the procedure is to extract the lens as soon as possible and relieve the tension.

Another case is most interesting. This woman, age 54, had the right eye operated upon for senile cataract in 1930, without complications. The left eye showed incipient changes one year later. A mature opacity was noted in November, 1933, and preliminary operation was advised in June, 1933, but owing to her mother's illness the operation was postponed until fall. In December, 1933, a small iridectomy was performed without injury to the capsule of the lens, and the patient was discharged 4 days later. Two days later she developed an increased tension. I did not strike the capsule at this time. There was marked swelling of the lens without any evidence of a scratch on the capsule. She did not respond to medical treatment and returned to the hospital, where a posterior sclerotomy was performed with temporary relief. A few days later extraction was attempted. Before the section of the cornea was finished an unusual quantity of blood appeared, apparently from the pupillary region. She was returned to bed without the operation being completed, and a few days later, when the tension of the eye was down to normal, the extraction was completed without a drop of blood in the anterior chamber.

This case illustrates the advisability of not persisting

in doing a complete radical operation when you are not entirely certain of the possibility of hemorrhage, which appeared imminent in this case. This patient had a perfect recovery with good visual acuity.

ALFRED COWAN (Philadelphia): Many of the so-called primary glaucomas are really secondary. There is a great similarity between the appearance of certain types of chronic uveitis and chronic glaucoma, and the picture is so similar in many instances that nobody can tell the difference. These fatty exudates are found on the posterior surface of the cornea in true secondary glaucoma due to active uveitis, but exudates are found on the posterior surface of the cornea in all patients with glaucoma—exudates that sometimes look very much like the exudates in secondary glaucoma. Many cases of glaucoma are really secondary to chronic uveitis. When in doubt we should call them secondary glaucoma.

I have not heard anyone mention the use of adrenalin. If it is used subconjunctivally or in packs for true secondary glaucoma, a dilatation of the pupil and reduction of the tension will often result.

L. WALLER DEICHLER (Philadelphia): One type of secondary glaucoma has not been mentioned—that following hemorrhagic retinitis, secondary to high blood pressure. In a typical case, the pupil is semidilated and the intra-ocular tension increased. With the slit lamp no abnormality of the aqueous or iris is discovered. Later, the tension progressively increases, the cornea becomes hazed, the iris frequently involved with the development of posterior synechiae, and finally absolute glaucoma develops with complete blindness.

Should one use eserine or atropine in such circumstances? I use eserine, with the thought of improving the drainage at the angle of the anterior chamber. This is already lessened, and I have always been afraid that atropine would increase the difficulty. Adrenalin packs are ideal to break up the synechiae, but can they be prevented from reforming? A basal iridectomy performed early will save a number of eyes that would otherwise be lost.

J. MILTON GRISCOM (Philadelphia): There is no clinical condition more difficult to combat than secondary glaucoma. In recent years there seems to have been an increasing number of cases of this disease, and each patient presents a different problem. On the one hand we are confronted with the necessity of reducing the tension, and on the other with the possibility of inducing much more marked inflammatory reaction by an operative procedure. The underlying causes make the treatment difficult and the results uncertain.

GEORGE H. CROSS (Chester): It was my very good fortune 2 or 3 weeks ago in Chicago to see a large specimen, a wax model, which Dr. Georgiana Theobald had made of Schlemm's canal. If you have read her article, I am sure that you have been impressed with the work she did (some 700 sections), which is of great interest in studying the tension in glaucoma.

DR. SHANNON (in closing): In replying to Dr. Cowan's reference to the difficulty of differentiating secondary from chronic glaucoma, from a pathological standpoint, I might say that the American Ophthalmological Society, in 1919, insisted that "deposits on the back of the cornea in connection with signs and symptoms of glaucoma are an almost certain indication that the rise of tension is secondary."

In regard to the use of adrenalin in glaucoma. Duke-Elder and J. C. Cole (*British J. Ophth.*, Feb., 1932) concluded from their experiments that the results were

variable and that in a certain number of cases hypotension was secured, but that in others the tension was raised. Vannas has decided that adrenalin should be given only in cases of chronic simple glaucoma. In our case in which its use was attempted the tension was distinctly elevated, and I have since been hesitant about employing it in this condition.

In reply to Dr. Deichler, a case of intra-ocular hemorrhage giving rise to secondary glaucoma is of great concern to the ophthalmologist. A venous hemorrhage from the retinal vessels pouring into the vitreous may not give rise to hypertension, but if the hemorrhage is

subchoroidal there is bound to be a rapid rise of tension, necessitating in all probability enucleation of the eyeball, although a trephining operation may be considered.

Dr. Griscom referred to trauma as producing glaucoma in a number of cases. Curiously, I have recently had several cases of this character, but with sweat baths, mercurial inunctions, and typhoid injections the tension was reduced satisfactorily.

The treatment of secondary glaucoma frequently taxes the ingenuity of the oculist, and despite all efforts the outcome may be unfavorable.

HIGH BLOOD CALCIUM*

Case Reports

JOSEPH S. BROWN, M.D., LEWISTOWN, PA.

Three case reports are presented, but for brevity only one history and physical examination will be given; reference will be made only where-in they differ.

The patients were ages 18, 14, and 13 months; 2 are girls.

CASE 1.—Betty H. was seen in February, 1932, at age 18 months. She had had a normal birth but was believed to have been only 8 months in utero. She weighed about 4 pounds at birth but seemed to be of full growth and development, having hair, fingernails, *etc.*, and was considered by the obstetrician to be a full-term child. As she would not nurse, she was fed by means of a medicine dropper, later becoming a bottle-fed baby.

The child was brought to me because she had not developed properly, did not do what other children of her age usually do, apparently did not hear nor see, would take only liquid foods and with difficulty, would not chew food of any kind, would not hold her bottle, would not raise her head from the pillow nor hold it up, would not sit, and would make no effort to stand on her feet.

Her color was poor. The entire body was limp, except when having a convulsive seizure, which occurred many times each day, when she would stiffen the arms and legs and turn her head to the left as though looking at her left hand. This would last for only a short period, probably one-half minute. These seizures were nothing like those seen in tetany. She made no attempt to talk, could cry, but was not troublesome. She made an indescribable noise.

Urination was normal and she was not constipated.

The family history was negative.

Physical examination showed the color to be poor and the head peculiar in shape. The fontanels were entirely closed and the sutures not in evidence; the cranium felt as hard as that of an adult. The pupils of the eyes reacted to light, but there was no attempt at accommodation and they did not follow a light or other bright objects. There was a convergent strabismus. There were no infections and there was no rigidity of neck muscles. She could rotate the head but was unable to raise it from the pillow. The tongue was

negative. She had 4 teeth—2 upper and 2 lower incisors. Swallowing was difficult, with no actual paralysis. There were abundant adenoids but no glandular enlargements. The chest showed no rosary nor Harrison's groove, and the lungs were normal. The abdomen was flat with no masses, and the liver, spleen, and kidneys were not palpable. The arms and legs were not developed, and she could not hold a bottle or any object. She could flex and extend both arms and legs, but did not seem to have any power although no actual paralysis existed. She was unable to support her head, could not sit, and did not make an effort to stand on her feet. Kernig's sign was negative; the reflexes were hyperactive, especially the plantar, but there was no ankle clonus.

Both the eyes showed the same findings and moved freely in all directions. The pupils reacted and were equal; the corneal reflexes were delayed and weak; the anterior media and structures were clear; and the view of the fundus was good, showing partial atrophy of the nerve with paleness, moderate cupping of the disk and small retinal vessels. Each eye had 4 diopters of hyperopia. The loss of vision was due to a descending optic atrophy and loss of function of the cerebral centers.

There was very little recognition of sound. The palpebral reflex to high-toned fork was absent, but when a Barany noise producer was used there was delayed recognition of the sound, indicated by the turning of the head toward the noise. Examination of the labyrinth by the caloric test, using cold water, gave the following results: In douching the right ear there was a slow but powerful turning of eyes to the left with a quick component to the right. Douching the left ear gave the same results in both directions and strength of reflex, which indicated a perverted nystagmus, with probable intracranial etiology. The ear drums were normal.

The roentgenogram showed pre-ossifications of the sutures, also total closure of the fontanels, but no decalcification of bone.

For 2 years and 8 months there has been some little improvement. She has grown, increased in weight and in muscle tone, can see a little better, and the blood calcium is reduced. She does not sit, cannot hold her head erect, will not stand nor make an effort, cannot feed herself, will not hold objects, cannot hear any better, and will not chew any kind of food.

* Read before the Section on Medicine of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 2, 1934.

CASE 2.—C. H., male, is no better, his blood calcium being not only the highest in this small series of cases but the highest I have seen recorded, and the symptoms are more pronounced in every respect. He is entirely blind but can hear a little.

CASE 3.—R. A., female, is very much like Case 1.

These cases are all idiots, reported for their extremely high blood serum calcium. In Case 1 the blood calcium varied from 12 to 21 mg. per

100 c.c. blood serum; in Case 2, from 20 to 42 mg.; and in Case 3, from 16 to 18 mg.

CONCLUSION

Possibly beginning in utero, there is a hyperactive parathyroid gland with, later, a dietary deficiency due to the inability of these children to swallow and masticate food.

FOREIGN BODY IN THE URETHRA*

Case Reports

STANLEY Q. WEST, M.D., PHILADELPHIA

The reason for reporting this series of cases of foreign bodies in the urethra is the ease with which they were removed. Any foreign body in the urethra that can be palpated can be grasped and removed easily.

CASE 1.—W. H., male, age 42, was referred to me for acute retention of urine. He had had no urinary symptoms of any kind until 2 hours before I saw him. He had last voided normally at 8:30 p.m. the day before, had retired early, and on awakening at 6:30 a.m., a futile attempt was made to pass urine; by 9 a.m., when I first saw him, he had severe pain over the bladder and in the urethra. He stated that the urine would proceed just so far, and no further. On examination a round object could be palpated in the perineum.

After a preliminary meatotomy a well-lubricated Kelly hemostat (curved) was passed into the urethra to the foreign body. The instrument was opened and the object was gently forced into the grasp of the hemostat and removed. It was found to be a stone, rather smooth, and about the size of an olive stone. The patient then voided normally.

CASE 2.—G. S., male, age 36, single, stated that he had had pain and a sticking sensation in his urethra, accompanied by pain and some difficulty with urination, for 3 weeks. The object could be palpated in the distal part of the penile urethra. There was no history of a foreign body having been placed in the urethra.

With a Kelly hemostat (curved), the foreign body was removed. It proved to be a sewing needle, encrusted with urinary salts. The point of the needle was directed toward the meatus.

The patient would give no information about how or when it had been placed there.

CASE 3.—T. V., male, age 67, was seen in the genito-urinary outpatient department of the Jefferson Hospital.

The history was that he had been advised by his physician to make local applications of mercurochrome to the urethra which was considerably inflamed. There was a penile hypospadias with marked induration along the entire urethra.

The glass applicator had been passed into the urethra the night before and was broken in an attempt to remove it. The patient stated the end was in the urethra

and he had the top with only a small portion of the applicator attached.

Because of the induration along the urethra, it was impossible to palpate the foreign body.

A Kelly hemostat (curved) was used to remove the foreign body, which was grasped after some manipulation. The patient was permitted to go home with instructions to return in one month.

6043 Germantown Avenue.

THE TREATMENT OF DIARRHEA IN YOUNG CHILDREN BY RAW APPLE DIET*

(Translated from the Russian and abstracted by
Sonia Cheifetz, M.D., Greensburg, Pa.)

In 1930 Moro reported 52 cases of diarrhea treated by raw scraped apple. Following Moro, Wolf reported 150 cases treated at the Zurich Children's Clinic. Other German pediatricians and clinics promptly followed suit. In 1932 Melentyeva reported good results in the Children's Clinic in Kazan, Russia.

Moro's diet consists of 100 to 140 gm. of scraped raw apple 5 times a day. Apples are pared and cored; no sugar is added. No other food is given. Water is unrestricted.

Return to the usual diet should be gradual over a period of 2 or 3 days, as sudden changes from the apple may result in relapse. Small amounts of bread, meat, cheese, and sugar are allowed, with or without some milk. A full mixed diet is reached in about 2 weeks, but with scraped apple or scraped banana still included. Loss of weight is negligible and there is no fear of starvation.

Although some do not consider the diet to be applicable to infants under age 9 months, others report success with infants age 6 months.

Palladina states that 100 gm. of apple furnish 56 calories, and contain 13.14 gm. of carbohydrate, part glucose and part starch.

Moro supposes the effect to be due largely to tannic acid and the mechanical factor in that large quantities of foamy material passing through the intestines, bathing the intestinal walls, would engulf and absorb toxic and irritating contents of the tract. Others consider

* Read before the Section on Urology of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 3, 1934.

* Read before the Pediatric Society, Moscow, June 16, 1933, by S. L. Doub and published originally in *Sovetskaya Pediatriya*, IV, 1934.

that tannic acid is too unstable and is hydrolyzed in the preparation of the puree by the ferment, the resulting compounds no longer possessing combining qualities. The percentage of tannic acid in apple is small in amount. Other authors attribute the therapeutic effect to other apple acids which amount to about 0.59 per cent.

Malyoth considers that pectin, a carbohydrate amounting in apples to about 5 per cent (Russian authors say 2 per cent), with its large molecule colloid containing calcium and magnesium salts, is able to combine readily with large amounts of water. Pectin, closely combined with the apple cells, can attract any bacteria which enter them. It can also absorb the amino-acids usually found in intestinal dysfunction. Furthermore, calcium is easily liberated from pectin in an acid medium, and the favorable action of calcium in diarrhea is well-known. Finally, it is supposed that by further breaking down of the apple acids, other disinfecting acids are liberated.

There is very little available evidence to show whether the apple diet changes the intestinal flora.

Whatever the explanation, there is the incontrovertible fact supported by numerous observations that apple diet, formerly considered as a poison in such cases, cures diarrhea more quickly and more easily than many other methods.

For nursing infants and older children who do not relish the apple diet a powdered derivative containing a larger quantity of pectin (Malyoth) than fresh apples has been used successfully by Coleman in Augsburg Children's Hospital.

245 S. Main Street.

ABSTRACT OF THE MEETING OF THE PENNSYLVANIA CHILD HEALTH COMMITTEE

(Continued from the April, 1935, issue.)

AFTERNOON SESSION

DR. HAMILL presented Dr. Ellen C. Potter, former State Secretary of Welfare of Pennsylvania. Dr. Potter is at the present time Director of the Division of Medicine, Department of Institutions and Agencies of the State of New Jersey, and has just recently been elected president of the New Jersey Conference of Social Work.

DR. POTTER: Just before leaving New Jersey I received a call from the president of our State Medical Society asking me to extend his greetings to the members of the profession and this committee, and he instructed me to bring back to the State Medical Society of New Jersey ideas to be used in connection with the program in that state.

It was in 1920 that I first began public service in Pennsylvania in the field of child health.

The man who was responsible for the development of child health consciousness in Pennsylvania at that time is the same man who has been instrumental in developing this program in which you are now participating—Dr. Hamill. He accomplished a splendid piece of work which stimulated the Health Department of the State of Pennsylvania to a consciousness of the fact that among all its health activities it certainly needed a division which dealt with child health in particular, so that out of that first great movement came the creation in the public service of an instrument on behalf of child welfare which has continued to function to this day.

Among the things I learned with considerable gratification is that the germ of the medical organization that Pennsylvania has adopted did have its early growth

in New Jersey. That is, we had in a sense evolved among our medical men the need of setting up the medical practice in the State of New Jersey in such fashion that it might make itself available in the public health field to persons who needed it. But you have gone far beyond anything that has been accomplished in New Jersey.

Just a word in connection with the Public Health Committee of the State Medical Society of New Jersey so that you may sense a certain effort we have been making there to correlate the Department of Education, the Department of Welfare, which we call by the very awkward title of "Department of Institutions and Agencies," and the Department of Health, together with the State Medical Society for the promotion of the public health service by the medical profession in their own offices. That tie-up of the 3 departments with the State Medical Society has certain very definite virtues. As already stated, you improved enormously on any idea that the New Jersey medical organization had in mind 2 or 3 years ago.

One of the reasons you have been able to do so is in part due to the fact that you had in your Governor a man who had the vision to see the need in this field and who was willing to put a modest sum of public monies at your disposal. You have been so economical that you have not spent the total amount in that budget to enable you to promote by field service an understanding of the program undertaken, particularly this program of safeguarding the nutritional development of the children of the state. You have had an advantage which has not been ours in that you have had an emergency relief administration which had a sense of its obligation in that field and placed some secretarial service at your disposal in the various counties. In addition you have had a great advantage which we have not had, and this is one of the ideas I shall take back home. We have not had the nutrition experts who have made such a practical contribution to the army of individuals whose children you seek to serve.

An analysis of the plan and the performance in Pennsylvania shows that you have developed one of the most outstanding experiments of social cooperation in the medical field, which has brought together doctors, nurses, dentists, laymen, and public officials focusing on one given project—perhaps the most neglected project in the field of child welfare. Having made such a splendid demonstration, it seems to me you are at the point now, with adequate support from the incoming administration, to carry forward the experiment still further to a logical conclusion of demonstrating how much can be done in a state organization with professional leadership on the one hand and disinterested private volunteer cooperation on the other. It is a great demonstration of community cooperation in a highly technical field, with the acceptance of professional leadership by the volunteer and with the acceptance on the part of the professionally trained group of the general proposition that there is much that the volunteer and the other allied fields of medical service can give to the projects as developed under the guidance of the medical profession.

The title of my topic is "Future Planning in the Field of Child Health." What I shall say is in relation to the planning in the field of child health and welfare for the United States.

One of the great advantages we have in our union of 48 states with their separate entities is that a state can undertake a social experiment, demonstrate whether or not it will work, modify it in the light of experience, and have something that can be presented as a bit of

social development which other states may use without loss of time in experimentation.

As I look back to 1920, when I became Chief of the Child Health Division of the Department of Health of this state, and compare the infant mortality rate of that year (97) with that of 1933 (53), it is proof-positive that there has been a consistent interest on the part of Pennsylvania citizens and the Pennsylvania Health Department to provide safeguards in the field of child health.

In 1920 there were only 23 child health stations in the state under the auspices of volunteer workers and to-day there are 510. If your program develops to its logical conclusion, there will be a child health center in every doctor's office in the state; you can realize what that will mean for child health in this commonwealth.

In considering the figures presented this morning, we realize that we are in a dangerous predicament in respect to the children of this generation who will be parents 25 years from now, and that the program we contemplate, while including the things we used to do, will have to include things we never thought of doing in those early days.

Child health and sickness service cannot be planned for and rendered by itself alone; neither the layman, the medical man, nor the consumer of the medical or health service can evolve the plan. They are all impinged upon by the cross currents of each other's aspirations and desires, and they are also impinged upon by economic conditions and physical limitations over which they have no control, and by all sorts of tangible and intangible forces that make for health or sickness as the case may be.

One of the most significant things about the State Emergency Child Health Committee is that it has brought together a large number of socially minded and health-minded persons, who have attempted to think through the method of rendering the kinds of service the people need where they need it. It is a good educational movement and it is particularly a demonstration in adult education. The doctors have received as much education from the impingement of the lay people upon them as have the lay people from their contact with the medical profession. The thing we all have to do, irrespective of the commonwealth in which we live and work, is to resolve all these forces which make for health into a unified program which can be carried through consistently. We must serve not only the indigent, which is practically what you are trying to do now, but also the poor little rich girl, who often is just as badly off in the matter of health as is the child of the man who is on relief.

Any future planning in the field of child health or welfare has to take into consideration the changes in the social structure and in the social forces that are moving to-day.

We are in the midst of a diminishing birth rate, there are fewer marriages, there are delayed marriages, and we are in the midst of a program of birth control which is very widely accepted, all of which will have an influence on the birth rate of the future. Next year in the first grades of the public schools of this country we shall begin to note the effect of this diminishing birth rate. Very few realize that in less than 5 years, that is by 1940, there will be a million less children in the grade schools than there are to-day. In the past 6 or 8 years there has been such a reduction in the birth rate that by 1940 there will be a very definite change in the volume of preventive child health work to be done. Probably there will also be a change in the type of work.

There is an increasing trend toward divorce and separation, which means increased mental tension for the children that are born into families that do not have the stability to stay together in harmony and to give those children an environment of stability and happiness. That means an ever-increasing mental hygiene problem which must be met in large part by the family physician. If we could bring to the medical profession a realization of that need and the technics necessary to meet it, what a service we could render not only to the problem child but to the problem parent as well.

We may find ourselves needing to make other adjustments in our program for child care that relate to the children who, under the child labor laws, will not be at work during their adolescence. Since many of them will not be in school, they will have extended leisure time for which there will be no outlet. The family physician has a responsibility in this connection, sometimes with the family itself and sometimes with the public agencies which are working in this field.

There is an ever-increasing percentage of the aged in our society with all the problems that are bound to be created when industry shuts a man out because he is over age 45, and will not give a woman a chance because she is over age 40.

These facts indicate that future planning must be based upon the knowledge of a diminishing volume of a certain type of service we have rendered in the past and an increasing demand for a type of service which we have never rendered heretofore. In this new type of service, however, the need for the leadership of the physician will be even greater than it was in the past. That does not mean that we should decrease our attempts to prevent diphtheria, smallpox, tuberculosis, and malnutrition, but it does mean that we should add to our good works these other activities which relate to the mental field, chronic illness, and the social adjustment of families in a new order. All these services are within the power of the medical profession to render. As a matter of fact they cannot be rendered without the medical profession.

I hope that out of this movement will come that experimental thinking and leadership which really will build up a social, health, and welfare service that is needed not only by the indigent but also by those above the level of indigency.

You have participated together in meeting a need of childhood below the indigency level. You heard this morning from Dr. Crumrine that the individuals who had suffered the greatest drop from reasonable comfort to indigency or approximate indigency are the persons who really have suffered the most in illness, in mental disorder, and in many other ways. A member of that group, until he does say, "I have not the wherewithal to go on," is not eligible to the service that ought to be available to him. Society has assumed that the medical profession would take care of that problem, not realizing that very often these persons hide in their own homes and will not confess their need because of their pride. The future development of a program must include a method by which all children and all adults will have the kind of service they need. How that is to be brought about remains for an organization such as this to say. There are certain factors in social development in which the participation of the physician is needed in order to make society realize its obligation.

Studies of the Federal Children's Bureau and special studies in other fields have shown that the incidence of illness is greater in the low-income groups and in the group of those who are without a wage. That being so,

do you not have just as much obligation, although your primary interest is in health, to be interested in unemployment insurance or some form of social mechanism that will provide to men and women a living wage? Do you not have the right to participate in the thinking of society to relieve the family of the dead father so that it will be easier for the children to live happily and develop normally? Is it not advisable for us to think through all those various allied social helps that will make sickness service possible not only for the indigent but for all those who need it and want to pay for it but cannot do so?

You are working on an intellectual and technical experiment in the field of health. It has in it the germs of something very real in the way of a contribution to the whole field of social thinking and health practice in the United States. The layman has an obligation to find a method by which the doctor will not be called upon to carry not only the full weight of the technical services but the full financial aspect as well. On the other hand, the doctor has an obligation to think in terms of social needs and to influence public thinking in the fields of social security, wages, pensions, and recreational and educational programs with special emphasis on health to the end that the very great need of the American people with regard to education, health, and social services will be met.

DR. HAMILL: In the absence of Dr. Marjorie Batchelor, who was to have represented the child health committee work for the State Federation of Pennsylvania Women, Mrs. Phillips, president of the State Federation of Pennsylvania Women, will make the presentation.

MRS. PHILLIPS: I should like to pay tribute to the doctors of Pennsylvania. The family doctor has been one of the greatest institutions in the upbuilding of this nation. If we can get back to the family doctor, we are going to accomplish a great deal more for the health of little children. They are not going to be so fearful, so hesitant, so reluctant to go to him. A fine thing coming from this movement is a new confidence in the doctor. People are also getting a new understanding of the hospital.

The State Federation of Pennsylvania Women has done all it can to help and we will continue to do so. The women of this Federation helped with that first movement to put milk in the schools and continued to have benefits to provide money for the purpose until the state took it over; then the women helped with the distribution of the milk.

The General Federation of Women's Clubs, with headquarters in Washington, and of which we are a part, has made a survey of 67 cities in 45 states to find out how much milk is provided for a child and the average was one-sixth of a pint per child. Now the slogan of the General Federation is "A pint of milk for every child in the United States every day."

The women's clubs are interested in seeing that school nurses are put in the schools. Mrs. Isaac Keister of Reading provided the first thousand dollars to try out an experiment in Westmoreland and Wayne counties to show the advantages of having school nurses. The results are very satisfactory.

The Welfare Department of the State Federation will be under the direction of Mrs. Stacey Peters of Lancaster. Under her division we have certain projects. The first activity is in public health work, and it will be our object to try to have every woman of the 50,000 in our organization have a health examination once a year. As to the cost, the State Medical Society should

recommend a plan whereby for a very nominal sum every woman can have at least one examination a year. We will send you the patients if you can adopt a plan. There may be some who can pay \$25, but the average woman cannot do so. We must have healthy women to have happy, healthy children.

We want to create an enthusiasm to have women go to the doctors to be examined for cancer, not just to save them individually from that suffering but to save mothers so they will be able to take care of the children. We want to campaign against cancer.

We are going to try to help eliminate blindness. There are 20,000 children in the State of Pennsylvania in our rural districts who have impaired vision of less than 70 per cent. If we can improve their vision, we might be able to do something for their health.

We will also cooperate in the campaign against venereal diseases.

DR. HAMILL presented the vice-chairman of the Clinton County Emergency Child Health Committee, Mrs. Frank P. Dwyer, whose subject was "The Functions of the Vice-chairman of an Emergency Child Health Committee."

MRS. DWYER: We were advised that our first aim was helpfulness to the chairman so that he could be relieved of the details of organization and coordination. We were also advised to help the individual physicians to the utmost degree so as to relieve them as much as possible of all routine details during examinations.

It was the vice-chairman who contacted the parents and who made sure that the report of the physician's recommendations reached the parents. It was necessary for the vice-chairman to get the child safely and comfortably to the examination place. The children turned out 93 per cent at the first request. To date 810 children have been examined in Clinton County, the work being done by 22 physicians.

It was the duty of the vice-chairman to form corps of nurses to help. We were able to get volunteer nurses without work and married nurses willing to help.

When these examinations were completed a vast amount of corrective work was required beyond our power to give. However, we shouldered the burden to the best of our ability and unraveled this mass of detailed information.

We have received clothing to be distributed among those who needed it. Food has been donated for the demonstrations, light and heat for examinations, cars and chauffeurs to carry the children to and from examinations. The courtesy and generosity of our physicians and dentists cannot be overemphasized. We have asked our hospital 210 times for the use of the operating room with complete service of physician and assistants. All this has been accomplished without one cent of capital. Our assets have not been tangible; they have been the good will of the community, the loyalty of our committee, and the generosity of our professional men.

DR. HAMILL presented Mr. Eric H. Biddle, executive director of the State Emergency Relief Board, who spoke on "How the Work of the Emergency Child Health Committee Supplements that of the State Emergency Relief Board."

MR. BIDDLE: As far as the Relief Administration is concerned, one of the important facts to remember is the great unpreparedness with which this country faced the depression. In the early days of the depression hastily thrown together relief organizations operated what now is the largest activity in the state by way of

money spent and the number of people necessary to exercise these functions. Of itself the Relief Administration has naturally been preoccupied with the great pressure of material need. We have not been able to do much about the havoc wrought on these victims of the depression except to hold things as they are.

The most ghastly aspect of this whole scene that I have experienced in the last 2 years within the Relief Administration is epitomized in the results of the relief census we took in the winter of 1933, which disclosed the striking fact that 42 per cent of the relief recipients were children under age 16. That in itself might not have significance to you unless compared with the figure of the 1930 census. The 1930 census showed that only 30 per cent of the people at that time were under age 16.

A number of careful and well-prepared studies on the subject has revealed that as meager as this relief grant is, it has at least arrested and in some cases prevented malnutrition and its outward effects. Only half of the unemployed are on relief as a maximum at any time.

As the Relief Administration becomes stabilized, we can give more thought to preservative and correctional measures. The relief organization is being prepared to render certain specified and individual nutrition services in the homes of many relief individuals to supplement and to be coordinated with the activities of other organizations.

The Emergency Education program now under way will be broadened to expand the group nutrition service; this will be done in conjunction with the volunteer service of the Emergency Child Health Committee.

The funds we have had have been too small, contrary to the impression many of you may have. The period of organization and disorganization is now passing; in the future the relief organization will be able to give much closer attention and coöperation to you in the attack on this problem.

DR. HAMILL presented Dr. Theodore B. Appel, State Secretary of Health, who spoke on "The Importance of Continued Health Supervision in an Emergency."

DR. APPEL stressed the point that from a public health standpoint health supervision is of extremely vital importance. If that is so under normal conditions, the importance of continued supervision in an emergency is exaggerated accordingly. He said in part:

Dr. Potter spoke of the inception of the child health movement in 1920; that was the direct result of the shock which the people of this nation received when they realized the number of young men of this country who were physically ineligible for military service. This information brought home the fact that, if we want healthy citizenship, these defects causing a large proportion of the unfitness must be corrected in childhood.

The work which this committee has done is a public health accomplishment of prime importance.

As to correlating the different factors in the field of public health, aside from the individual himself, there are 3 different groups—the official represented by the state agencies and the local boards of health, the great and important volunteer organizations, and the medical profession. They are all working along different lines to the same end, but it always has been very difficult to bring their work together. It is true that the organization which is directing its attention to a particular subject will emphasize to itself the importance of that subject, possibly out of proportion to its actual worth. The medical profession very often resents, as far as the rank and file is concerned, the dictation of volunteer

organizations and particularly the dictation of the state. Yet the organized medical profession is really the most important of these factors in solving any public health problem. The official organizations, such as the Department of Health, have very definite limitations. In Pennsylvania we are limited entirely to prevention. We deal with health questions *en masse* and not with the individual; that limits our work. It is impossible for any official state health organization to accomplish what your committee has done. It would not be able to secure the necessary coöperation.

Supervision of all kinds is valuable, but very difficult to carry out. This committee is a semi-official body endorsed by the medical profession, which threw its power and weight back of the project. By virtue of its organization the committee in each county is composed of the different elements which were recognized as having a bearing on the condition of child health.

The Emergency Child Health Committee has had the benefit of all the resources the Department of Health could offer.

In order to accomplish results, there must be continual pressure in the development of public consciousness that these things exist and that they can be and should be corrected, and that it is for the benefit of the public itself that these activities are conducted. Unless these facts can be kept before the public, a committee such as yours will have but a temporary effect. It is something which must necessarily be continued in order to accomplish the results which we all desire.

There is another factor which is important as a result of your work, that is, stressing to the people the necessity of caring for the health of the irreducible minimum of the indigent. As a result of the last few years the proportion will be increased for quite a long time. Some definite provision must be made so that these people will secure ordinary medical care. The information collected by this committee and that collected by the Division of Medical Care of the State Emergency Relief Board under the supervision of Dr. Harold A. Miller, will form the basis for a better understanding of conditions of that kind. The laws relating to the poor of Pennsylvania are of a very variegated nature. The mere fact that during the past 2 years the State Emergency Relief Board has had to take over so much of that work shows their inadequacy.

DR. HAMILL: In the absence of Dr. James N. Rule, State Superintendent of Public Instruction, Mr. Bristow will speak on the "School Health Program in the Present Emergency."

MR. BRISTOW: The schools have long recognized health as an important function of education, but it is only comparatively recently that a functional program has been developed.

Pennsylvania's program of health in the schools now seeks, through health practices at home, in the school, and in the community, to aid, in so far as possible, in providing a favorable environment, satisfactory nutrition, opportunity for expression, protection from drains on vitality, protection from physical injury, and provision for desirable emotional experiences. It is important that children and their parents build emotionalized attitudes toward worthy practices, make desirable adjustments to health situations in their environment, and enjoy the fruits of favorable conditions essential for a wholesome and happy individual.

Points of emphasis in our program follow:

1. We aim to provide safe, sanitary, and hygienic conditions in the school. This is done in coöperation

with the Department of Labor and Industry and the Department of Health.

2. We are attempting to see that school nursing service is provided as generally as possible. Thanks to Mrs. Phillips and her group, that movement is spreading throughout the state.

3. Our instructional program is being revised so that it will relate more directly to personal and community health.

4. We have definitely launched upon a program of parent education, in coöperation with other departments of the state government and such other agencies as the Agricultural and Home Making Extension Service, the Parent-Teacher Association, and the Federated Women's Club. I believe the one place where education can help as much as in any other way is to join with the lay resources of the state for purposes of developing and articulating a splendid program of parent education. We have the start on that program at the present time.

5. We have established coöperative relationships with the Department of Health to facilitate health examinations, a function assigned to that department.

6. Our courses in home economics are being reorganized to take account of nutrition and home and family relationships.

7. Through the Emergency Education program, sponsored by the State Emergency Relief Administration, instruction in nutrition and health generally is offered to thousands. I should like to pay tribute to Mr. Biddle for his insight and coöperation in connection with the Emergency Education program. If present plans can be consummated, the Emergency Education program can be correlated effectively with the Emergency Child Health Committee.

8. We are emphasizing the problem of mental health. I should like to call your attention especially to that problem, because the physical health of the child is related to his mental health. Many activities in the school probably do not contribute to the best mental health of the child. Our teachers are beginning to realize that fact and are planning to modify their programs.

9. The last point is the establishment of special classes. It is tragic that there are at the present time thousands of Pennsylvania children in the regular classes in school where they cannot be benefited. They are there because the public is not sensitive to or appreciative of the dangers confronting these youngsters. It is not an expensive program; it is an economy program. To place these youngsters on the side of success rather than on the side of failure means a great saving to the commonwealth. Such a transfer will relieve the burden on the whole program of the school.

Every point mentioned touches on the program of the Emergency Child Health Committee.

Dr. Rule has called attention to the fact that 3 measures are essential to protect the equity of Pennsylvania's children in a sound education: Reorganization of school districts so that all essential services can be provided on an efficient and effective basis; revision of the basis of school support to relieve real estate of its heavy burden and to insure that children will not find the school doors closed to them due to the inability of the local district to provide a minimum program; revision of the instructional program on a more functional basis.

If there is any one constructive suggestion I might make at this time, after participating in this program to-day, it is that we constitute a subcommittee of the 60,000 teachers in Pennsylvania to aid the Emergency Child Health Committee in every county of the state to

carry forward the program which has been so gloriously begun.

DR. HAMILL: In closing the meeting may I express the hope that our program has been acceptable to you. It was our aim to try to portray the activities of the committee in such a way as to give you an idea of its various ramifications.

COMFORTING THE AGED

Physicians are frequently consulted by seekers of perpetual youth. Some complain of ailments in which old age is the only factor and a turning back of the hand of time is the only remedy.

Many, when they discover for the first time that they are slowing down and cannot keep up with the pack, apply for relief but give age no thought. When told that this or that symptom must be expected with declining years, they are not reconciled. They become worshippers of false gods and listen to the siren lure of empty promises on patent medicine wrappers. Here their potency is cunningly questioned, implying thereby the insidious inference that sexual vigor is the infallible index of youth. Despair enters and gloom prevails.

We do not argue that the physician should practice deception and hold forth false hopes but certain we are that such individuals should not be bluntly and cruelly driven away. Persons in the age of involution should particularly be seen periodically by a doctor who understands how to prescribe medicine and dispense encouragement with the same kindly equanimity. Twilight with its fading shadows and its evening star may well fit into a picture of quiet contentment and serene beauty, in the making of which the tactful physician can often play an important part.—Editorial, *The Lancet*, July 15, 1934.

NEW STREPTOCOCCUS GERM FOUND

A new member of the streptococcus family has been found in the throats of persons suffering from rheumatic infection and a type of kidney disease, Drs. Perrin H. Long and Eleanor A. Bliss of the Johns Hopkins Medical School reported to the Society of American Bacteriologists.

The new streptococci are much smaller than their relatives and have been called minute beta hemolytic streptococci, but the frequency with which they inhabit throats of patients suffering from these 2 diseases suggests that they may be fully as harmful as the larger variety of streptococci.

In 2 instances these minute streptococci were the sole cause of pus infections in humans. They were found in the throats of four-fifths of a group of patients suffering from glomerular nephritis and in the throats of half the patients suffering with rheumatic infection. They are rarely found in the throats of persons ill with chronic diseases or acute infections. In well persons their number is only from one-half to one-third that of the ordinary beta hemolytic streptococci, but in patients suffering from rheumatic infection and from the kidney disease these minute organisms greatly outnumbered the larger beta hemolytic streptococci, in many cases being the only hemolytic streptococci found.—*Science News Letter*, Jan. 5, 1935.

You may be a subscriber to the *Journal of the A. M. A.*, and yet not be a Fellow of the *A. M. A.* (see page 643).

EDITORIALS

THE ANNUAL CONVENTION OF THE AMERICAN MEDICAL ASSOCIATION

The annual convention of the American Medical Association will be held in Atlantic City, N. J., from June 10 to 14, 1935. We sincerely trust that our members are bearing in mind this wonderful opportunity for relaxation and adding to the sum total of general knowledge.

Every endeavor should be made to attend all or part of this convention, which is the biggest medical assembly held annually for the benefit of the medical profession of the United States. The many opportunities offered by this convention are appealing. Every practitioner of medicine, irrespective of whether a general practitioner or not, will find much to help him in his daily practice.

The annual meeting of the Woman's Auxiliary to the American Medical Association will be held at the same time. This lends an added attraction; the women folks will be just as anxious to get to the shore as will be the men folks.

Make every effort to attend this convention.

HOSPITAL SERVICE IN THE UNITED STATES

In the Hospital Number of the *Journal of the American Medical Association*, March 30, 1935, appeared the fourteenth annual presentation of hospital data by the Council on Medical Education and Hospitals of the American Medical Association for 1934 and, as stated in the editorial in the *Journal*, constitutes the usual list of hospitals registered by the American Medical Association, the data relative to bed capacity, the average number of patients and the patients admitted, and a survey of the occupancy of various types of hospitals during the past year. The editorial justly calls attention to the fact that the data concerning the hospitals in the report are the most complete, accurate, and up-to-date that have ever been assembled in any publication in this country, and that they represent a distinguished service by the Council on Medical Education and Hospitals of the American Medical Association to the medical profession and the public.

The number of hospitals now in the American Medical Association Register is 6334 as compared with 6437 a year ago, a net decrease of 103 hospitals. The decrease is due to the development of certain mergers and the closing of hospital departments of certain custodial institutions.

Forty were dropped from the Register on grounds of ethics, as against 21 restored from those formerly rejected. The usual questionnaires were mailed to 6437 hospitals and reports were received from 6230, a percentage of 96.78 replying in time for publication in the official report for the year.

It is of interest to note that the length of stay of patients in governmental (21.2 days) and non-proprietary (11.2 days) institutions is considerably beyond that in independent, proprietary, and corporation hospitals (8.7 days).

General hospitals admitted 6,291,556 patients, or 88 per cent of all patients admitted. The total number of births reported in hospitals was 701,143—8133 less than in 1933. The number of idle beds reached a total of 218,000, of which 156,030 were in general hospitals. The patient days in all hospitals were almost 303,000,000, a gain of more than 7,000,000 over the previous year.

The growth of hospitals for the past 25 years has been at the rate of 25,000 additional beds each year. As to the superintendent or chief administrative officer, 2226 have the degree of M.D.; 2551 are registered nurses; and 1545 have no medical or nursing degree. The statistical study further shows 46.57 per cent of all hospitals have physicians as pathologists or laboratory directors; 70.86 per cent have their own radiology departments; 31.7 per cent have physical therapy departments; 1168 have dental departments as compared to 796 in 1927; and 1531 have schools of nursing as compared to 1814 in 1927.

This report includes for the first time a classification of hospitals to show whether or not they are organized for profit. Obviously this does not include government hospitals, church and fraternal hospitals, and a large group maintained by associations organized under state laws which forbid the distribution of profits. A special group called "associations and restricted corporations," together with the church and fraternal institutions, make up the nonprofit group. Corporations that may be operated for profit are designated as "corporations not restricted as to profit" which, with the individual and fraternity hospitals and some hospitals under industrial control, make up the proprietary group of hospitals. Industrial hospitals which are maintained purely on a fraternal basis are included with the other nonprofit associations.

The survey includes 48 state maps showing the locations of the hospitals by state and by county, which immediately visualizes the distribution of the institutions in the respective state.

As truly stated by *Hospital Management*, the immense work of gathering, correlating, analyzing, and the presentation of this statistical study can be appreciated only from a thorough study of the original publication. The Association, the Council on Medical Education and Hospitals, and the individuals who made it possible have placed the entire hospital world heavily in their debt in undertaking and completing the vast amount of labor involved.

THE ECONOMIC DEPRESSION AND MENTAL HEALTH

During the past four years many questions have been asked as to the effects of the depression on the mental health of our citizenry. Dr. C. H. Henninger, in the *Pittsburgh Medical Bulletin*, presents in an interesting way the answer to this question:

The most important effects which he lists are: The breaking up of home life which is essential to good mental health; the depression leaves its greatest marking on the extremes of ages; the enforced leisure has been conducive to asocial acts; the want of necessities creates an inferiority complex, a loss of self-respect, and personality changes; there is a decided increase in the suicide rate; it hampers the normal development of the child and is conducive to maladjustment in adolescence with a tendency to vagabondism; crime has increased, but many of the petty crimes are dependent on human desires for food and clothing; and worry and anxiety lead to a psychosis.

Dr. Henninger lists as one of the benefits of the depression the effect it has afforded as an outlet for human expression of sympathy and affection for those engaged in social, religious, and governmental activities.

THE QUESTION OF FEES

The question of fees will probably never be settled so far as strict definiteness and absolute rules are concerned, but there are certain broad lines of sense and policy that may be adopted as guiding decision in the majority of cases. Charges, for instance, by one physician for treating the family of another is impolitic and unprofessional. If done it certainly should be agreed upon in advance. In a recent case of a

different sort a physician sent a bill to a rich patient which, in the subsequent adjustment, was practically admitted by the physician to be about five times too high. This plan has been often pursued in the past by men who should have gone into ward politics or the "bucket-shop" business instead of medicine. We know of a number of instances in which such traders have charged a man several thousand dollars for services, well knowing they will get only one-fourth or one-tenth of the amount; and they would be well satisfied if they could get one-twentieth for the same service generally. Such a method is neither good business nor good morals. The charge should be right to begin with and no compromise accepted. Because physicians treat so large a proportion of the sick without payment, because so much of their life and energy must be given unrewarded to the advancement of their science, and because in a final analysis their services cannot be rated in money values, they should be far better paid than they are. But let us not assent to exorbitant charges, those in which greed is more than evident, and there should be no foolish haggling, and reductions, and compromises.

EDGAR MOORE GREEN, A.B., M.D., Sc.D.

Dr. Edgar Moore Green, of Easton, died at his home, March 9, 1935, aged 72, following a long illness, although he had been able to continue some of his practice up to the beginning of March.

Dr. Green was born in Easton, September 20, 1862, a son of the late Dr. Traill Green and Harriet Moore Green. He was of English, German, and Scotch descent, his paternal ancestors having been early settlers in Easton. One of his great grandfathers was secretary of the Northampton County Committee of Safety and a major in the militia during the Revolutionary War. He was a descendant on his maternal side of John and Priscilla Mullins Alden. His father was an alumnus of the University of Pennsylvania Medical school, a noted physician and scientist, and a liberal benefactor of Lafayette College of which he was a member of the faculty for many years, and at one time its acting president.

Dr. Green received his early education in public and private schools, having graduated from the Easton High School in 1879. He entered Lafayette College where he was one of the junior orators; he won the mathematical, astronomical, and Early English Text Society's prizes, and was graduated from the class of 1883, with the degree of A.B., delivering the honorary oration in astronomy.

He was graduated from the University of Pennsylvania School of Medicine in 1886, receiving the prize for the highest average in his class. He was awarded the Medical News prize for his thesis. As his father could no longer carry on his practice, the son entered his father's office, having served as substitute intern at St. Luke's Hospital, Bethlehem, during the summer of 1886. In 1896 he was appointed pathologist to St. Luke's Hospital, Bethlehem. As far as can be determined he was the first regularly appointed pathologist in any hospital, and St. Luke's Hospital was the first hospital to organize a pathologic laboratory. He was consulting internist at that institution; was physician-in-chief at Easton Hospital from 1904 to 1924; for several years was associate editor of the Lehigh Valley Medical magazine; and also served as consulting physician to Blair Academy, Blairstown, N. J.

Dr. Green served as director of the Easton Cemetery Company since 1897, and since January, 1933, had served as president of the company. He was chairman of the building committee of the Easton Public Library and served as the first president; was a member of the Easton School Board 1890 until 1904, and acted as president from 1900 until 1904; and was elected vice-president of the Philadelphia Alumni Association of Lafayette College in 1890. He was a member and former president of the Northampton County Medical Society; a member of The Medical Society of the State of Pennsylvania; a Fellow of the American Medical Association; a Fellow of the American College of Physicians; a member of the American Association for the Advancement of Science; ex-president of the Lehigh Valley Medical Association; a member of the Medical Club of Philadelphia and of the Philadelphia Pathological Society. At Lafayette College he was a member of the Phi Kappa Psi, Phi Beta Kappa, and Alpha Mu Pi Omega fraternities. He was a member of the Pennsylvania Society Sons of the Revolution, the Pennsylvania German Society, the Country Club of Northampton County, the Pomfret Club of Easton, and the Penn Athletic Club of Philadelphia.

Dr. Green was a member of the Board of trustees of Lafayette College since 1897, being at the time of his death second in point of years of service among the members of its board. He was a member of the Executive Committee and for a number of years was chairman of both the Executive Committee and Honorary Degrees Committee. His father, Dr. Traill Green, was the first instructor in science at Lafayette; he gave the college observatory. The college archway at the foot of the hill, presented by the class of 1929, is

constructed of stones taken from the Dr. Traill Green Observatory. For a total of 100 consecutive years, father and son labored unceasingly in the practice of medicine and other activities for the best interest of Easton.

He was appointed County Medical Director in 1906, and subsequently was reappointed to the same position by Governors Sproul and Pinchot; in 1916 he was appointed by Governor Brumbaugh as a member of the Advisory Board of the State Department of Health, being reappointed by Governors Sproul and Pinchot; in June, 1927, he was appointed by Governor Fisher as a member of the State Board of Medical Education and Licensure which term was served. He was president of the Easton Tuberculosis Society since 1908, and consulting physician at the State Hospital for the Insane at Norristown; a member of the advisory board for drafting in the military service in 1918, being a camp surgeon during the same year at Camp Lafayette; a member of the Brown and Lynch Post, No. 9, American Legion of Easton.

He received an honorary degree of doctor of science at Gettysburg College in 1917. He was an extensive contributor to medical literature.

He was married June 8, 1898, to Mary Bancroft Brodhead of Delaware Water Gap. In addition to his wife he is survived by one daughter, the wife of Dr. Thomas C. Zulick, Jr., of Easton, a son, and 2 grandchildren.

The Northampton County Medical Society at the meeting held March 15 was to have tendered Dr. Green a testimonial in observance of the century of medical service by father and son. He was to have been presented with a framed photograph of his father and himself, below which was to have been inscribed a minute of commendation for this long period of public service. In view of his death, however, the County Society presented the gift posthumously to his family. At this meeting of the county society Dr. William Estes, Sr., read an address commemorating the lives and good work of Doctors Traill and Edgar Moore Green. In this address attention was called to the fact that it is rare that the overlapping lives of 2 worthy men, father and son, should extend over a whole century of active professional work; that one of the most interesting personalities and most unusual lives of the nineteenth century was that of Traill Green. As family physician and general practitioner Dr. Green had a large clientele. It is evident from the record of his affiliation with county, state, and national organizations, and the honors conferred upon him that he did noteworthy work both in his profession and in the civic and social work of his community and state.

ANNUAL EASTERN SECTIONAL MEETING OF THE COMMISSION ON CANCER

Under Auspices of Northampton County Medical Society

Hotel Bethlehem, Bethlehem, Pa., May 24, 1935

10:30 a. m. (D. S. T.)

Stanley P. Reimann, Philadelphia.

"Chemical Differentiation of Tumor Cells: Its Meaning in the Concept of Neoplasm; Its Diagnostic and Therapeutic Use."

Discussion to be opened by

Henry A. Rothrock, Bethlehem.

Frederick O. Zillesen, Easton.

11:30 a. m.

Robert H. Ivy, Philadelphia.

"Cancer of the Mouth."

Discussion to be opened by

George E. Pfahler, Philadelphia.

Byron Jackson, Scranton.

Roger P. Batchelor, Palmerton.

12:45 p. m. to 1:45 p. m. Luncheon

2:00 p. m.

George E. Pfahler, Chairman, Cancer Commission, Philadelphia.

"Cancer of the Bladder."

Discussion to be opened by

William H. MacKinney, Philadelphia.

Elmer Hess, Erie.

3:00 p. m.

Frank Lahey, Boston, Mass.

"Cancer of the Stomach."

Discussion to be opened by

George P. Muller, Philadelphia.

Donald Guthrie, Sayre.

Harold L. Foss, Danville.

4:00 p. m.

Frank Adair, New York, N. Y.

"Cancer of the Breast."

Discussion to be opened by

Moses Behrend, Philadelphia.

Edward J. Klopp, Philadelphia.

Samuel J. Waterworth, Clearfield.

8:15 p. m.

Public Meeting at Broughal High School

Speakers—George E. Pfahler

Donald Guthrie

Motion Pictures Will Be Shown

A PLEA TO COUNTY MEDICAL SOCIETIES

Dr. William J. Leach, president of the Indiana State Medical Association, states that if the membership as a whole had an intimate knowledge of the innumerable problems and difficulties encountered by the Executive Committee and the Council throughout the year, there certainly would be more coherent support and more potential efforts put forth by the county societies. Some county societies do exceedingly well, but a few of them do very little.

He is not scolding or complaining, but sincerely pleading for a change from this inertia which exists in a few county societies. To remedy an evil, we must first be familiar with the cause. Some counties have very few doctors, and those few are widely separated; that

in itself makes it difficult to function effectively as a unit. In such a case, he would repeat the familiar advice: Become annexed to a stronger adjacent county society which may bear a hyphenated name. This plan will have a 2-fold advantage, namely, supplying the doctors of the smaller counties with a good society home, and enriching the larger society. At least, the members of the stronger unit can and should invite their weaker neighbors to meet and discourse with them with mutual benefit. Small societies can confidently expect help from their neighbors for the mere asking, if they cannot find interest within themselves. Fortunately, good roads and fast cars have removed the disadvantages of distance and time expenditure.

Another cause of incoördinate and dormant county societies seems to be a lack of sensible responsibility for professional success, both individually and collectively. While not all of the physicians in any community feel this way, some of them do, and as long as that feeling exists, the unit is weakened. Try to realize that each county society is a fundamental unit of the state association, and each unit is either a burden or a burden-bearer; thus the responsibility becomes apparent. Through the inherent sincerity of each member, we may supply the material for perfect units to be placed in the main structure—the state medical association. Then, when every other state has done as much for the American Medical Association, the American medical profession easily can blaze the way for medical progress in an unheard-of fashion.

Recently he heard another excuse for latency and inactivity on the part of county societies. It was this: "Well, I guess we just don't like each other well enough." The excuse was cruelly frank but immutably true. There we have a cause. What is to be the remedy? And who can administer the remedy? Such antipathy among physicians is uncharitable, illogical, and it is pernicious both to the profession and to the public. It is truly the expression of prejudice, of selfishness, and of ill-advised sociology. However, it is a fact (and one well attested) that the more we get together for the purpose of scientific discussion, the more we recognize our colleagues' good qualities and our own weaknesses.

Medical men are trained and educated in a similar fashion and should speak the same language in the most agreeable style. Much of the antipathy among physicians is bred and nourished by clannish factions within the general populace, by those who might be compared to fans and enthusiasts of prize fighters and who, by vicious gossip, are willing to aid and abet their favorite doctor by the unscrupulous condemnation of other doctors. In such instances, the doctors can do much to cure the evil by expressing professional friendship and sympathetic esteem each for the other. When they meet at the bedside in counsel, the fruition of their ethical conduct and intelligent counsel and help expresses itself in honor and prestige as well as in satisfactory financial compensation.

No intelligent public will fully respect the physicians of a community when the physicians refuse to respect each other and to coöperate in a professional and social way. All of our differences and misunderstandings should be settled among ourselves privately, not publicly. When our profession is thoroughly organized and our efforts are well coördinated, then and not until then may we expect the confidence and prestige in the public mind which will put us in the position of trusted medical and social advisers. This achieved, the public will eagerly seek our advice and gladly coöperate with

us in combating not only the evils of ill health but also such evils as cultism, ignorance, superstition, and even questionable governmental policies.

Throughout the state there are some decent, legalized practitioners of medicine who, for some reason, have not become affiliated with the county medical society. Some sort of friendly approach should overcome this difficulty. Our own state medical journal alone should be sufficient argument. The coöperation of every member is needed.—*Jour. Indiana State Med. Ass'n.*, Jan., 1935.

OCCUPATIONAL DISEASES OF THE PHYSICIAN

This vital topic was the subject of a recent scholarly address in London by Dr. Sir Humphry Rolleston, an eminent English physician and baronet. It coincides with the publication in this country of an informing booklet on "Death Rates by Occupations," which reveals among other things the causes that snap the vital thread of the medical man here. We all remember the story of the man who said: "I wish I knew where I was going to die." "What do you want to know that for?" asked his friend. "Sure," he replied, "then I would never go near that place!"

In a similar way, if the doctor knows what ailments are most likely to attack him, he can guard against them, and may be able to add years to the span of his usefulness to his fellow-men. "Physician, heal thyself," is the familiar quotation from St. Luke, but Sir Humphry remarked that the correct translation is "treat thyself," and perhaps we may modify it to "care for thyself," and may urge the doctor to watch for the diseases that beset his profession, and at least to use the common sense in taking care of himself that he enjoins on his patients and too often disregards in his own case with a reckless courage that is as unwise as it is admirable.

The death rate for American physicians and surgeons is gravely higher than the general figure for all the workers covered in the study of "Death Rates by Occupations." The medical death rate is 10.69 per thousand, as against 8.70 for all "gainfully occupied males." The study covers 10 states, including New York. An even worse contrast appears when we see that the rate for all professional men (including the doctors) is only 7.00, bringing the medical rate more than 50 per cent above the general professional level. Those who revel in statistics may be interested to compare the doctors' rate of 10.69 with the rate of 7.89 for lawyers and judges; 10.33 for clergymen; 2.69 for college presidents and professors; 7.68 for dentists, and 4.88 for trained nurses. The low average age of the nurses may account for their low rate, but what is the reason for the very low mortality of the college presidents and professors? There is something to look into.

Two diseases generally thought to be frequent among active practitioners, says Sir Humphry Rolleston, are angina pectoris and duodenal ulcer, and he observes that worry may well play a part in both. Osler spoke of angina as *morbis medicorum*. At any rate, its incidence among medical men has been considerable.

Surgery has not only its physical strain but its risk of infection, streptococcal, pneumococcal, and syphilitic. An investigation in 1926 at the Manchester Royal Infirmary showed that in the first quarter of the century the death rate of the surgeons was nearly 5 times that of their medical colleagues. The postmortem rooms,

too, have killed, crippled, or damaged many pathologists investigating the causes of the death of others.

Then there are the bacteriologists, who are exposed to infection in dealing with bacterial cultures. Tularemia, while actually a rare disease, has attacked laboratory workers both here and in England. Tuberculosis may be started in a laboratory by inhalation. Other diseases that have taken the lives of bacteriologists are enteric fever, typhus, Rocky Mountain fever, yellow fever, plague, glanders, undulant fever, and African fever.

Radiologists are affected by various pathologic conditions caused by irradiations, chief of which probably is radiologists' cancer. Sir Humphry recalls that in 1911 Krause referred to the death of 54 radiologists from malignant disease; in 1922 Ledoux-Lebard estimated that 100 radiologists had died from this cause, and in 1934 Colwell and Russ found that the total is now more than double this figure. A curious fact is that it is the roentgen-ray workers who suffer from malignant disease, while the cases of carcinoma due to radium are remarkably few. The radium workers, on the other hand, tend to suffer from anemia, while the roentgen-ray workers are free from it. It seems that the blood changes produced by radium are of the same character as those described in roentgen-ray workers, but the gamma rays of radium have a much greater tendency than roentgen rays to produce anemia.

Why do physicians tend to become victims of their own specialty? Some believe that autosuggestion is responsible. It is not uncommon for a medical man to manifest the symptoms of the disease in which he is especially interested, and a number of them have eventually suffered from organic diseases of the system of the body on which they had previously concentrated their attention.

Turning now to the list of diseases that carry off the physicians and surgeons, as recorded in "Death Rates by Occupations," we are not surprised to find diseases of the heart, by far the most important—looming larger, in fact, than any other 3 causes put together. Next in importance are cancer and other malignant tumors, followed closely by nephritis, cerebral hemorrhage and softening of the brain, and pneumonia. Then come tuberculosis, cirrhosis of the liver, and appendicitis. Far down the list is duodenal ulcer, which Sir Humphry mentioned as frequent among British physicians. Glancing along the figures, we find that the doctors appear to suffer more from heart trouble than most other workers, and much less than others from tuberculosis. In the cancer column they stand a little higher than the average and in pneumonia and appendicitis are about par.

In short, the doctor is human, and cannot expend his vitality recklessly, day and night, without paying for it himself. That tragic figure of deaths from diseases of the heart tells the story—overwork, overstrain, worry, lack of sleep—there it is, written plain. That is an "occupational disease" that will never cease as long as the doctor breathes the spirit of service and sacrifice that has marked the profession from its beginning and will continue to its end.—*Editorial, N. Y. State J. M.*, Dec. 15, 1934.

COMMENTS AND EXCERPTS

History of Medical Licensure.—Henry E. Sigrist, Baltimore (*J. A. M. A.*, Mar. 30, 1935), reviews the history of medical licensure from the dawn of historic times to American medicine. In conclusion he

adds a personal remark: He does not believe either in tests or in examinations. They are a necessity, as no other better method has yet been found, but it is well known that certain students have a special ability to pass examinations whereas otherwise brilliant students quite often show strong inhibitions in examinations. It is also known that actual knowledge alone does not make a good physician, that the character and the whole personality have to be taken into consideration. In order to judge whether a man is fit to practice medicine or not, one must know him and have observed him at the bedside of the patient. The longer one has known him, the more will one be able to pass judgment on him. The history of medical licensure begins in the Middle Ages. It is a unique feature in the history of medicine, in that at the very beginning, the initial solution of the problem was so perfect that a development of nearly 800 years could not improve it.

Trends in Graduate Teaching.—Charles Gordon Heyd, New York (*J. A. M. A.*, Mar. 30, 1935), in discussing graduate teaching, gives 3 distinctive trends in graduate medical education: (1) A research fellowship in pure science, (2) a continuous and periodic reeducation of the great bulk of practitioners serving in dispensaries and clinics, and (3) the training of specialists. The problem of medical service to the community, so far as the quality of the service is concerned, is largely in the hands of medical schools and voluntary hospitals. Failure of the legislators to recognize the preëminent technical ability of these custodians of medical education will invariably bring about a depreciation in the quality of medical service. Scientific advancement in medical education, in a personal sense, will rest on the ability to observe, to correlate repeated clinical observations, and to generalize on these facts. If true science is the power of performance, then a means should be encouraged that will place the prospective student in contact with great clinicians.

Case of Patricia Maguire.—Eugene F. Traut, Oak Park, Ill. (*J. A. M. A.*, Apr. 6, 1935), reports the case of Patricia Maguire, age 26, who within a period of 3 weeks (previously healthy) developed stupor accompanied by fever, leukocytosis, and bacteriemia. The spinal fluid was clear but showed pleocytosis, increased globulin, and an abnormal colloidal gold curve. The febrile stage and the deep stupor lasted 3 weeks. Various chemicals, vaccines, serums, and hyperpyrexia were used. They are not known to have altered the course of the illness. Excepting occasionally scopolamine for sleep, she has had no medication since Feb. 28, 1934. She was given more than 1000 feedings by nasal catheter without developing aspiration complications. The patient is very well-nourished and has good color. Her muscles are large and strong. She has not spoken or made any purposeful movements except those of defense. She lies inattentive with eyes shut most of the time. The pupils do not react to light or accommodation. The left great toe is constantly and rigidly hyperextended. She is fed by spoon or a catheter in the mouth.

Obituaries of Physicians Published in 1934.—Under this title an editorial appears in the *Journal of the American Medical Association*, Apr. 6, 1935. The obituaries of 3231 physicians in the United States were published as compared with 3209 in 1933. The obituaries of 73 women physicians were published as compared with 83 in 1933. Graduates of medical schools in the United States for the year ending June 30, 1934,

numbered 5038. Taking the number of physicians whose obituaries were published there was a net addition to the rank of the profession for the year of 1807. The average age of death of those classified as of the United States was 64.3, as compared with 64.4 in 1933. Heart disease was again the leading cause of death; 141 physicians died as a result of accidents in 1934, compared with 158 in the previous year; automobile accidents accounted for 69 deaths, 6 less than in 1933; and suicide was the cause of 75 deaths in 1934, 5 more than in 1933.

MEDICAL ECONOMICS

Doctors' Pay Raises Decried in Russia.—On Mar. 5, 1935, Joseph Stalin signed an order for a 60 per cent increase in the public health budget to finance a wage increase for the "forgotten" medical profession.

The plan will cost the country 1,478,000,000 rubles, which will bring the health budget up to more than 4,000,000,000 rubles. This was held necessary in order to attract more men into the profession.

Dentists, druggists, nurses, and those in affiliated professions and trades also will have their wages raised, the whole increase averaging 50 per cent over the present figure.

Members of the specified groups were selected 3 years ago, when an equal salary system was changed to a system of proportional wages based on skill and experience. The physicians and dentists continued to receive salaries ranging from only 150 to 400 rubles a month, with the dentists seldom getting more than 200. Most factory workers now draw 150 or more, and trolley and bus drivers receive 600 rubles.

Henceforth, hospital staff doctors will receive 350 to 600 rubles monthly and heads of hospitals up to 750. Village doctors will get from 350 to 400 rubles, dentists 225 to 350, and pharmacy managers 300 to 400.

The plan is bound up in the administration's fight to rid the country of typhus and malaria. Although the number of physicians in Russia is claimed now to be $3\frac{1}{2}$ times the number under the czars, there still is a great shortage, especially in Western Siberia.—*New York Times (Medical Times)*, April, 1935).

Study Plans for Group Hospitalization.—Group hospitalization for Syracuse, N. Y., moved one step nearer realization when 5 representative committees meeting on Feb. 13, 1935, authorized the appointment of an advisory committee of 27 empowered to study plans.

The committees represented at the meeting included those from the Health and Hospital Division of the Chest and Council, Central Trades and Labor Assembly, Chamber of Commerce, Onondago County Medical Association, and Syracuse Academy of Medicine.—*N. Y. State J. M.*, Apr. 1, 1935.

Payment to Doctors a Vague Element in "Uplift" Plans.—One of the objections of the medical profession to all the plans proposed by social organizations, foundation representatives, wealthy philanthropists, and self-appointed committees on medical or labor legislation has been the indefiniteness of terms used when payment to doctors is discussed. Every one of these workers would have the doctors "fairly recompensed." Each one states that in his plans the doctors would be "adequately remunerated." Some of them announce that in their schemes many doctors "would get more than they at present receive." Laws have been submitted to legislatures providing in what ways and in

what amount moneys should be collected, and specifying that after the payment of fixed sums to the executives, sick benefits to the insured, and hospital care and equipment for sick or injured, the doctors would be allotted proper sums from what remained. The American College of Surgeons, which goes wrong so often on economic questions, follows the lead and now announces that "the compensation of the physician and of the hospital should be estimated with due regard to the resources available in the periodic payment fund. . . ." When, to make discussion easier, definition of terms used is sought, there is woeful silence or a sidestepping of the question. The success of the insurance plan in Great Britain is always immediately proclaimed. In this country it is claimed that the reduction of overhead would be in reality money earned, and that surcease of worry over income regardless of its amount, fewer hours of daily work, and long annual vacations would be assets that would compensate for the small money income. No one has publicly stated that thanks to the depression very many doctors are already possessing such assets and with not too much appreciation.

Actual money to be received by the doctor is rarely stated—still more rarely made an essential of proposed schemes. There are admittedly, on the doctors' side, too many unknown or uncertain factors. There are some factors, however, in all the plans on which there is agreement by all proponents. In all the financial parts of the plans the medical profession may have no voice. The methods of raising funds, of distributing them, and the details of this supervision and administration must be left entirely to lay people. Doctors are not to be permitted, nay, *must* not be permitted to have any influence in financial matters beyond accepting what they are given, though there can be no objection to representatives of social organizations, political parties, government bureau heads, or aggregations of wealth constituting the governing boards.

As exceptions to the general rule, a few—very few—of the plans proposed for payment to doctors contain some slightly definite terms. The Committee on Costs of Medical Care believed that health insurance in this country would bring to the general practitioner more than the \$2500 per year and to the "complete specialist" much less than the \$10,000 per year which were lately the averages. Another writer supports the proposition that the rate of pay should be similar to that of our Army or Navy, and that a properly qualified and accredited physician should receive upon entering his life-work \$2200 a year. After a varying number of years, with regular examinations, the pay would be gradually increased until finally one man—but only one at a time—in charge of the health of the entire population of the United States would receive the highest amount, about \$7000 a year. Another has pictured in glittering terms the satisfaction of work in the industrial world and the joy of beginning full-time work at \$1900 per year with a steady incentive for most doctors of a possible \$2700. Again, it is suggested that doctors would receive under some socialized plans the same salaries as teachers in the Departments of Education. President Flaherty of the Medical Society of the State of New York, on the other hand, in his recent address, has shown the great number of teachers in the country receiving \$700 a year, others \$500 a year, and how many were out of employment. He might have included the thousands of young teachers who have successfully completed their training and have waited long for positions.

Another welcome exception to the rule of indefinite-

ness in money terms has been a writer in the *Survey-Graphic* (John A. Kingsbury in *Survey-Graphic*, Vol. XXIII, No. 6, June, 1934). Representing the Milbank Foundation, as he does, in urging compulsory health insurance for all families receiving less than \$5000 a year income, he states that in any method of payment "the general practitioner could be paid a sum equivalent to at least \$7.50 per insured person per annum. Thus the general practitioner who serves 1000 potential patients would receive a gross income of something like \$7500. . . ." The multiplication is perfect and clear, which is more than can be said of all the words in this writer's sentences.

An interesting thought arises in regard to the mental process by which the proper compensation for doctors is reached. No plan carries an income based on the present-day value of the services rendered. No one has even suggested that incomes be based on the value of the services rendered. Reduction by physicians of mortality or morbidity are reasons not for increased compensation but for decrease in salaries or in the number of doctors engaged. The Committee on Costs of Medical Care reported that the \$2500 average net income should be increased. Why it should be increased, how much it should be increased, or why not decreased the report did not say. Doctors doing health insurance work in England receive for a thousand potential patients a net sum in our money of between \$700 and \$1000 yearly. Industrial corporations, including accident insurance companies, seem actuated by the standard rule of the "Old Deal" in business to use every lawful means to secure medical services at the lowest possible price. Political groups, too, have even cried that if the doctors rendering service are not satisfied with the terms dictated to them, there are other doctors ready to displace them at once. When other reasons fail doctors are forcefully reminded that "adequate" compensation is received by them in experience gained, in prestige, in opportunities to do more unpaid or poorly paid work, in the permission to engage in research, or that the medical profession should ever continue its charity to the indigent and that any sum, no matter how small, "is very much more than nothing at all." If the care of the indigent sick is a responsibility of the community and not of the medical profession, the community may no longer ask that profession to render its services at indigent rates. The question of *ability* to pay should be removed from discussion when the community decides to settle the question.

It is strange that the bankers, industrialists, and big business men who direct and support financially these uplift plans and who would never invest a dollar of their money without using all means to secure proper return on it, plus the return of the principal, plus the salary for directing the business investment, do not apply the same considerations to the money investments of the doctor before he enters upon his professional duties, not to mention the other important nonfinancial parts of his investment. Even the rates of pay of skilled laborers for their work is not used by these business people as a minimum standard. This section of Mr. John Kingsbury's article and the resolution of the Milbank Fund authorizing further study of medical economic questions may be the expression of a prayerful spirit which will be rewarded with still more light and knowledge.

The medical profession is not thinking of the subject of money to be paid doctors under any scheme as of the greatest importance. The competent care of the sick individual (especially of that individual who in

our present financial structure is not able to earn the necessities of life), community health with the prevention of spread and with the eradication of communicable diseases, medical care of the aged as well as of infants and school children, the maintenance of hospitals, laboratories, and special institutes for research, the training of physicians, and the prompt application to the needy of every advancement in knowledge are problems as anxiously as ever occupying the minds of physicians.—Department of Economics, *Medical Times*, Aug., 1934.

A State Society President's Views on Medical Relief and Other Problems.—Dr. George F. Harkness, president of the Iowa State Medical Society, 1934-1935, states that the greatest asset in organized medicine is the enthusiastic coöperation of its individual membership.

The secretary is the key man of all medical organizations, be it county or state. More thought should be given to the selection of the secretary than any other officer.

In discussing medical relief and other current problems, Dr. Harkness wrote in part as follows:

While we as physicians should not be called upon to establish the indigency of any individual, we as a group have a responsibility that differentiates sick care relief from the other 4 basic needs. Those in charge of furnishing relief funds can determine and dictate what is required in the way of food, shelter, clothing, and fuel; but no relief agency can determine how much medical care an individual should have, what drugs he may need, or when hospitalization and for what period the same is necessary. We, as physicians, are the only ones who can decide these questions and when we decide them we must accept a responsibility to see that this service is delivered efficiently and not extravagantly. If we neglect this we are inviting socialized medicine. Such responsibilities must be accepted or our desire to direct sick care relief will be challenged and taken from us. When a director of relief asks why in one county the proportionate hospitalization costs are approximately 9 times (according to the case load of indigency) what they are in a near-by county, we must be prepared to show justification for this difference.

The physician should receive adequate compensation; but because this compensation is coming from government funds, there is no justification for rewarding indigency with the frills of scientific medicine. Those in government disbursing agencies look first at the total sick care cost. They then break this cost down into hospitalization, drugs, and professional services. If, in ratio to the cost of the 5 basic needs, the total in one locality goes greatly beyond that in another, they have a right to know why. This explanation is a local responsibility because we are the judges, not the disbursing agent, as to when the individual needs sick care relief.

If there are localities where the ratio is too high, there are many localities where it is far too low, too low because the physicians are bearing the load without any compensation. The State Director of Relief sought advice. The subject of a master contract was suggested, since there must be some uniformity in the disbursing of funds. Localities vary in needs of its people and desires of the physicians. A flat sum contract might be acceptable in one community, whereas another might desire a fee schedule. One community may desire to give their indigent the free choice of physician while another may require the acceptance of certain appointees.

The suggestion was made to the Director of Relief that an attempt be made to establish a fair and acceptable ratio of sick care cost; that hospitalization, drug cost, and professional services as a total up to the accepted ratio would be approved; that the responsibility of hospitalization and drug costs be accepted by the medical profession. This means that if hospitalization and drug costs become too great, professional services get less. This is local professional responsibility.

The further suggestion was made that our organization would work with the State Director of Relief in attempting to convert disproportionate costs if we could have the assistance of the State Relief office in obtaining for the physicians in other localities their proportionate ratio of sick care relief compensation.

These are some of the problems the Medical Economics Committee is attempting to solve while trying to render services to local groups. The committee further recommended the acceptance of the Iowa State Medical Society fee bill on a 50 per cent basis. It must be borne in mind, however, that unsupervised professional services have a possibility of bringing total costs far beyond what will be paid. There must be a willingness to assume local responsibility and keep costs within a certain range. If not, we are inviting socialized medicine or bureaucratic control of professional services from without the profession.

Because the depression and socializing forces have focused attention on economic phases of the practice of medicine, we must not forget that our primary purpose as an organization is educational, that postgraduate instruction has been neglected as far as medical educators are concerned. There has been intense concentration on the undergraduate, to the neglect of the physician in the field. In the new medical program of Soviet Russia, postgraduate instruction is required at intervals if a physician wishes to continue in the practice of medicine.

State institutions teaching medicine are in a particularly advantageous position to develop clinical postgraduate instruction. This demands (1) the fostering and developing of a spirit of enthusiastic coöperation between the state teaching institutions and the state medical societies; (2) the development of a desire on the part of physicians for such postgraduate instruction; (3) the desire on the part of state institutions to undertake such work; and (4) the education of the public and our lawmakers to feel that such a program would be one of public benefit for which sufficient funds should be provided.—*Journal of Iowa State Medical Society*, Jan., 1935.

Hospital Contract Practice Condemned.—The council of the West Virginia Medical Association at a special meeting, Jan. 17, adopted a resolution forbidding any of its members to practice "under the terms of or in connection with any hospital list contract which provides for the care or treatment of industrial injuries" or to "be on the staff of or in any way connected with any hospital which is a party to any such list contract." The ruling is to take effect Apr. 16, 1935, and after that date the council is to ascertain whether any members are engaging in this kind of practice and recommend to the county societies concerned that these men's membership be terminated immediately. If the county society does not comply with this ruling, the charter of the society is to be withdrawn. The council explained that it is believed that physicians wish to abolish this type of practice but that it is difficult for any individual or

group to avoid it if others are still engaging in it.—*J. A. M. A.*, Feb. 16, 1935.

MEDICOLEGAL

Sets Aside Verdict Against Christian Scientist.—Holding that Supreme Court Justice Paul Bonyne erred in permitting the tenets of Christian Science to enter the trial of a suit for personal damages, the Appellate Division in Brooklyn set aside on Apr. 5, 1935, a verdict of a jury which last June said Mrs. Lucy Steele Kirk, a Christian Scientist, was entitled to no recovery in a suit brought by her against George Cisler and awarded to Mr. Cisler damages of \$75. The higher court ordered a new trial of the suits.

Mrs. Kirk lives at East Norwich, L. I. Mr. Cisler resides in Hicksville, L. I. In July, 1932, Mrs. Kirk was in an automobile driven by her daughter, Peyton S. Kirk, also a Christian Scientist. In Syosset, L. I., Miss Kirk's car was in collision with a car driven by Mr. Cisler. Mrs. Kirk suffered a fractured nose and other injuries, which she said kept her from working at her trade of fancy cake baker. She sued Mr. Cisler for \$10,000 damages. He in turn sued Miss Kirk for \$4500 for alleged personal injuries and injuries to his automobile.

The suits were tried at Mineola. In charging the jury Justice Bonyne said:

"If pains are not real and fractures do not exist then obviously you men are in no position under the law to award damages for injuries that do not exist. This lady of apparent refinement and culture was faced with the necessity of making a choice. Were the injuries real? Was the blood real? If they were, she belongs in this court. If, on the other hand, they were not real, according to the teachings of the departed patron saint of Christian Science, then of course, she has no place here. If you find she denied the ministrations of a medical practitioner through a stubborn belief in the efficacy of prayer by a paid healer and her recovery was retarded thereby you would be unfair if you charged Cisler with these injuries."

The Appellate Division, in a unanimous decision, said:

"It was an error to permit, in the circumstances, the tenets of the Christian Science religion to creep into the trial in a manner inviting to the plaintiff's prejudice personal issues between her and the jury."—*New York Times*, Apr. 7, 1935.

Damages for Unlawful Necropsy.—The New York Appellate Division holds, in an action against a hospital for the unlawful necropsy of a deceased patient's body—*Grawunder vs. Beth Israel Hospital Assn.*, 272 N. Y. S., 171—that the reasons which have led to the adoption of the rule that a charitable institution is immune from liability to patients because of the wrongful act of its servants are not applicable when the sufferer is not a patient.

In this case it was alleged that the unlawful act was committed by the defendant, its agent, or employees, while the defendant had the exclusive and absolute possession and control of the body.

The court said that the plaintiff could furnish no proof as to who did the unlawful act, and the defendant which should have had knowledge of all the facts, did not show that some person pursuing an independent calling and not acting under its authority or direction performed the necropsy. A hospital, it was held, "should not be allowed to avoid all liability by pro-

fessing ignorance of what has happened within its own confines."

The jury's verdict of \$2000 to the widow for injured feelings and mental suffering was held excessive by \$1000.—*Medical Record*, Jan. 2, 1935.

Medical Judgment Required.—The California District Court of Appeals holds—*Reynolds vs. Struble*, 18 P. (2d) 690—that however true the principle of law may be that a physician cannot be charged and held on mere matters of judgment or for erroneous conclusions on matters of opinion, he must use the judgment and form the opinions, not of a layman, but of one possessed of knowledge and skill common to medical men practicing in the same or a like community.—*Medical Record*, Jan. 2, 1935.

PHYSICAL THERAPY

Quartz Light Therapy in Urogenital Tuberculosis.—Stanley L. Wang, New York (*J. A. M. A.*, Mar. 2, 1935), employs the air-cooled mercury vapor quartz lamps for the local irradiation of sinuses and for general irradiations over the regions of the kidneys and bladder. He has found the air-cooled lamps useful in the treatment of 73 cases of wounds and sinuses. The local treatment was irradiation with the air-cooled mercury vapor quartz lamps, and in a few instances it was alternated with heliotherapy. The treatments were given twice each week beginning with a 1-minute exposure at a distance of 20 inches from the wound. The time was gradually increased to 7 minutes and the distance then slowly shortened to 15 inches. With the older lamps the treatments were begun at 3 minutes at a distance of 20 inches and gradually changed to 10-minute exposure at 8 inches. After these settings had been reached the treatments were continued until the wounds healed, with occasional variation according to the skin reactions. The progress seemed most satisfactory when there was no other treatment of the wound than cleansing the edges with dilute alcohol and applying the dry gauze dressings. On the whole the results seem to indicate that the quartz lamps are of value in the treatment of wounds and sinuses. Irradiations with air-cooled lamps over the regions of the kidneys and bladder are given twice each week in all inoperable and post-operative cases presenting tuberculosis of those organs. Cases of epididymal or testicular tuberculosis are treated in a like manner. The treatments are begun gradually and the lamps are brought closer, depending on the skin reactions. Short exposures of 7 or 8 minutes at from 12 to 15 inches have worked out well. The heat of the lamps seems to have a good influence. Of 156 cases including postnephrectomy, inoperable renal conditions, postepididymectomy, postseminal vesiculectomy, postorchidectomy, postinguinal adenectomy, posturethrotomy, inoperable epididymitis, and inoperable orchitis, 44 patients were apparently cured, 73 improved, 29 unimproved, and 10 died. Irradiation of the interior of the bladder of patients with bladder tuberculosis has been carried on for more than a year and a half. Of 15 patients who were given intrabladder irradiations 11 showed improvement and 4 were unimproved. The intrabladder irradiations were given once each week. The time varied from 5 to 20 seconds, depending on the local reaction. Longer time and more frequent treatments seemed to be unsatisfactory. A small amount of liquid petrolatum, which permits the passage of the rays, was used on the tip of the applicator for lubrication. Although no mishap has yet occurred, it was thought best

to insufflate only a little air, and an opportunity was given for it to pass out through the extra tube in the applicator after the treatment. The instrument was sterilized in the formaldehyde cabinet, and when several patients were treated it was sterilized between applications by immersion of the applicator in 1:1000 mercuric oxycyanide solution for 10 minutes.

Comparison of 3 Electrical Methods of Producing Artificial Hyperthermia.—Since Jan., 1930, Francis W. Bishop, Emmy Lehman, and Stafford L. Warren, Rochester, N. Y. (*J. A. M. A.*, Mar. 16, 1935), gave 448 treatments to 312 patients. The diathermy method was used for 157 treatments, the radiotherm for 12, and the radiant energy method for 279. Three patients were treated with both the radiotherm and diathermy, with an interval of from 1 to 3 weeks between. Since the results seem to be identical, regardless of the method of elevating the temperature, a comparison may be based on cost and ease of use. Although any of the electrical methods can be made to work efficiently and safely in artificial hyperthermia, the radiant-energy (infra-red) method seems to be the most convenient and economical method in the authors' experience. There does not appear to be any difference in the clinical effects and results from the various methods used. These methods rely on the circulation of the blood for the redistribution of heat in the body from the site of application of the energy. The simplicity of the equipment in using radiant energy enables one to administer to the comfort of the patient somewhat, such as by changes in position, pillows, and rubber rings, and to foresee and handle sudden changes in conditions. The cost entails the building of a suitable cabinet wired for the lamps and the purchase of a rheostat. The usual thermometers, blood pressure equipment, oxygen tank, and records complete the equipment. A constant indication of the rectal temperature aids greatly in manipulating the heat input to maintain the rectal temperature at a desired level.

Short Wave Diathermy.—Frank Hammond Krusen, Philadelphia (*J. A. M. A.*, Apr. 6, 1935), believes that before short wave and ultra-short wave diathermy machines are used extensively: (1) They should be improved in construction, and the manufacturers should specify definitely the wave lengths of the apparatus and their output in watts; (2) fire hazards should be eliminated; (3) an accurate method of measuring dosage should be perfected; (4) more data concerning the physiologic effects of the waves they produce should be amassed; (5) the idea that the apparatus is simple to operate and that treatment may be given through the clothing should be dispelled; and (6) the technic of application should be improved so that the danger of burning sensations is lessened. It would seem that with further study by physicists and engineers concerning the proper methods of constructing apparatus, and with further clinical investigation by especially skilled physicians in hospital physical therapy clinics, short wave diathermy may prove to be a useful therapeutic agent. But at the present time many of these devices have not been sufficiently perfected, and knowledge of the exact physiologic effects of these waves is very limited. Extensive employment of these machines at the present time can lead only to unsatisfactory results and may cause condemnation of a method of treatment that might otherwise be found serviceable.

Aids in Muscle Training.—F. J. Gaenslen, Milwaukee (*J. A. M. A.*, Mar. 23, 1935), is of the opinion that of the many varieties of physical therapy, active

exercise probably deserves first place because of its wide applicability and because it calls into play the entire neuromuscular units in a manner approaching normal physiologic action. He describes sling suspension exercises, under-water exercises, and the overhead trolley system of exercise. He emphasizes that every case must be studied carefully and a physical therapeutic program planned to meet the individual requirements, and also that the simple measures he outlines are merely aids in the rehabilitation program.

INDUSTRIAL MEDICINE

Italian Congress of Occupational Medicine.—The eleventh Congresso nazionale di medicina del lavoro was held recently in Turin.

Professor Micheli, senator, director of the Clinica medica in Turin, discussed "Exogenic Superinfection in Relation to the Question of Occupational Tuberculosis." The author believes that so-called tuberculosis of adults has an endogenous origin. He is led to this conception by arguments of various nature, such as the frequency of bacillema, and the presence of live and vital germs in the tracheobronchial glands even when they are calcified, from which the germs themselves easily enter the blood stream. Modern theories on immunity affirm that, although the organism may be capable of overcoming readily the first tuberculous infection, it does not succeed in destroying the germs that the infection brought into the organism, for such germs remain alive even in the cicatricial processes of calcification. Early infiltration is the expression of the exacerbation of small preëxisting foci, surrounded by an area of exudative inflammation.

Professor Ranalletti of Rome spoke on poisoning due to carbon disulphide, pointing out that in such cases the principal morbid manifestations concern the nervous system. These present themselves in the form of a psychosis of a maniacal, confusional, or demential type, or in the form of polyneuritis that involves all 4 limbs. The localizations of polyneuritis may affect also the nerves and the flexor muscles. This is an important characteristic for the differential diagnosis as against pleuritis of a different nature.

Dr. Ando-Gianotti considered the neurovegetative and endocrine changes that are observed in poisoning due to carbon disulphide, with especial reference to the adrenal capsules. He concluded that under such conditions there are a special state of lability of the parasympathetic system and evident endocrine changes that affect particularly the genitalia, the islands of Langerhans, and the adrenal cortex.

Dr. Di Donna spoke on the hygienic prevention of sulphocarbonism, a question that is to-day important owing to the wide industrial use of carbon disulphide. Prophylaxis may be accomplished either by preventing the gas from spreading into the work rooms or by having the workmen put on gas masks and protective garments.

As the last official speaker, Professor Guglianetti described the injuries that result to the eye through overuse and constitute eye strain. One of the most typical occupational diseases is the nystagmus of miners. Among the diseases due to the environment of the workman may be mentioned those produced by defective light or by radiations, such as cataract in men working near hot fires and in glass blowers, and the eye lesions due to roentgen rays. Also in association with caisson disease there are eye changes, and disorders of the visual apparatus may be due to the direct action of gas, vapors,

or dust contained in the air of the workman's environment or to the action of war gases.

Holstein spoke on the intoxication states due to mercury, which are observed in some hat factories. Vigliani referred to disturbances in workmen who apply spray varnishes to automobile bodies, pointing out that the digestive apparatus is most commonly affected, together with liver involvement. The changes in the blood were the least marked.—*Foreign Letters, J. A. M. A., Apr. 13, 1935.*

Poisoning Due to Thallium Sulphate.—Edwin P. Jordan, Chicago (*J. A. M. A., Apr. 13, 1935*), reports a case of industrial thallium sulphate poisoning. The course of the patient is presented in chronologic order according to the number of days following the ingestion of the thallium. The symptoms of the poisoning began gradually. The most important in order of appearance were neuritic pains in the toes and feet, mental excitement and confusion, sleeplessness, epigastric pains and vomiting, and falling out of the hair of the head. These were associated with other signs of profound physiologic disturbance; *e.g.*, fever, rapid pulse, and increased blood pressure. Treatment was symptomatic with the addition at various times of sodium thiosulphate, iodides, hydrochloric acid, and pilocarpine. The alarming exacerbation of symptoms following the administration of sodium thiosulphate and iodides in the earlier phase of the illness was most striking and deserves special emphasis. In this case hydrochloric acid appeared not to be indicated, as free acid was present in the vomitus. The patient was seen by the author, Jan. 27, 1935. At this time his only complaints were moderate listlessness and inability to walk fast because of stiffness in his feet. There was no pain. He committed suicide on Mar. 1 by shooting himself in the head. Judging from the arrangements made for this event, there was no evidence of mental confusion remaining from the illness described in the report. There were no known motives for suicide at the time of the poisoning.

HOSPITAL ACTIVITIES

More Hospitals Adopt 8-Hour Day for Nurses.—Agreement to drop the old 12-hour day for special duty nurses and to adopt the 8-hour day instead has been reached in 34 hospitals in New York City, compared with 21 a year ago, according to a report made public by the Committee on 8 Hours for Nurses.

To facilitate the placing of needy dependents, a survey of hospitalization in the city's 5 boroughs is being made by the Physicians' Wives' League of Greater New York.—*N. Y. State J. M., Apr. 1, 1935.*

Care of Indigent Injured Heavy Burden in Pennsylvania.—Mistakes made by automobile drivers cost hospitals in the State of Pennsylvania more than \$540,000 last year, a survey conducted by the Hospital Association of Pennsylvania discloses. More than 11,000 indigent automobile accident patients were cared for by the hospitals of the state.

The survey was made to determine the extent of the unjust free-care burden imposed upon hospitals by reckless drivers. Of the 16,000 persons treated in hospitals when injured by automobiles on Pennsylvania highways and streets, only 5000 paid their hospital bills.

The remaining 11,000 spent 172,000 days in hospitals at a cost of more than \$538,000 to those institutions for ward care—meals, laundry, nurse, and orderly service.

Professional costs, which are not included in those figures, would have run to many thousands of dollars in

addition. Nor were the costs of out-patient follow-ups, the actual cost of dressings, drugs, roentgen-ray studies, and other materials used in treatment included in the figures. Their inclusion would nearly double the total, still disregarding the professional charges.—*Hospital Management, April, 1935.*

To Which Department Should Syphilis Cases Be Assigned?—This question frequently arises among the members of the hospital staff. The dermatologist is insisting with increasing frequency that syphilis with cutaneous manifestations be assigned to him. The genito-urinary surgeon believes that this condition rightfully should be treated in his dispensary and wards. If there is a danger of creating ill feeling between these 2 groups, a compromise is sometimes adopted whereby all patients suffering with syphilis without a skin rash are assigned to the genito-urinary surgeon and those who are first seen in the dermatologic clinic because of some skin lesion are retained there for treatment.

It does not appear wise to indulge in hairsplitting in the solution of any hospital problem in an endeavor to please every staff physician. On the other hand, syphilis presents such a great variety of manifestations affecting the cardiovascular system, the joints, the nervous system, and the genito-urinary system that some institutional policy should be adopted in regard to its treatment.

Perhaps it would be wise to consider the formation of a group to which the treatment of syphilis in all of its forms could be referred. This group might consist of an internist, a genito-urinary surgeon, a dermatologist, and perhaps a laboratorian. A decision could be made by this group as to the department to which the individual case should rightfully be referred. In ward cases in which cardiovascular syphilis is encountered, the internist on duty could request therapeutic advice from this group should he consider it necessary.

Certainly syphilis is no more a skin disease than scarlet fever and hence it should not be wholly assigned to the dermatologist. If no better solution can be reached, the supervision of the genito-urinary clinic and ward service should be in the hands of the genito-urinary surgeon.—*Editorial, The Modern Hospital, Nov., 1934.*

Should Rebates Be Made at the Request of the Visiting Staff?—A general practice of requesting a reduction in rates for rooms and special laboratory service has crept into the hospital whose superintendent asks this question. The inquirer also requests suggestions as to how such rebates should be made, provided an affirmation answer is given.

Rebates from set prices for services and supplies seem to be the order of the day. No one apparently expects to pay the full price for anything. In most institutions some person performs to a greater or lesser degree the work usually assigned to a credit officer. It is the duty of this person to decide whether rebates shall be granted and to set the charge that seems most fair to patient and hospital. To be sure, chaos would reign if it were the exception and not the rule to adhere to established rates. But the hospital must compete with private specialists from whom concessions in charges are constantly being asked. This practice has spread to the hospital.

Many physicians prefer to send their patients elsewhere rather than to encounter, as they term it, the institutional red tape necessary to get rates reduced. A tactful credit officer will welcome the doctor who can give information about the economic status of his pa-

tients. No attitude of hostility or discourtesy should be adopted by anyone in contact with the physician.

Sometimes the director of the roentgen-ray or clinical laboratory is authorized to rebate rates. Sometimes only the superintendent exercises this authority.

If all requests from physicians were equally fair to the hospital and to the patient, little difficulty would arise. The abuse of a rebate privilege by one or more physicians is the means whereby a certain discredit settles upon the whole staff. This is unfair both to physician and patient.

The hospital rate card frequently must be altered to meet individual circumstances. This should be done with care and only after a true insight into the patient's financial status has been gained. It would probably be better for a tactful credit officer to handle the whole matter. If no such officer is to be found in the hospital organization, then the heads of departments can probably perform this function better than the superintendent. If an assistant superintendent can be assigned to this work, the results will probably be more favorable than if it is left to a busy chief executive. Rarely should this duty be given to the social service department.—Editorial, *The Modern Hospital*, Aug., 1934.

PUBLIC HEALTH

Measures to Reduce Hereditary Blindness.—To prevent blindness from hereditary eye diseases, facilities should be made available everywhere for the sterilization of those who have such diseases, and premarital certificates regarding the freedom from hereditary diseases of the bride and groom should be required, the annual conference of the International Association for Prevention of Blindness, held in London in April, was told by Dr. A. Franeschetti, of Geneva, Switzerland.

Other measures advocated by Dr. Franeschetti to reduce heredity blindness include the special training of physicians, particularly ophthalmologists, in genetics; the education of public health officials and the general public on this subject; a decrease in consanguineous marriages; the collection of precise and complete statistics; and the increased use of social workers in this field.

Radio Medical Quacks.—A keen thrust at the radio medical quacks and other such charlatans was delivered by Dr. Morris S. Bender in his inaugural address as president of the Queens County Medical Society. "If the people correctly understand the fixed causes of disease and how to avert them," he declared, "they would require a strong system of measures to rid the nation and the state of charlatanism, quackery, and the exploitation of health by manufacturers of nostrums whose advertisements are belched forth by glib-tongued radio orators and pseudoscientists, whose words of wisdom on pink tooth brush, halitosis, and faulty elimination are so inspiring. How much health and how many lives are sacrificed to this greed for profit?"—*N. Y. State J. M.*, Apr. 1, 1935.

Government Fees.—How federal officials spare fees is told in a letter from an ophthalmologist printed in the *New York Medical Week*. The case "was that of a traumatic cataract in which beginning infection was present. The patient was treated by me until infection was under control; the cataract was then operated upon, and normal vision resulted. The treatment lasted for over 2 months and included the original examination, 16 office visits, operation for cataract, and 9 visits at the hospital. For these services after 7 months I

received a check for \$97.25 from Washington."—*N. Y. State J. M.*, Apr. 1, 1935.

Fight Against Smallpox Not Yet Entirely Won.—The fight against smallpox has not yet been entirely won. Statisticians of the Metropolitan Life Insurance Company make this statement in spite of the fact that their figures show there was less of this dread disease in the United States and Canada in 1933 than ever before and that the records for the first 7 months of 1934 promise a further drop in the number of smallpox cases.

Significant is the fact that fully three-fourths of the smallpox cases reported by American states in 1933 occurred in only 12 states, population of which is only one-fifth of that of the entire country.

"Generally speaking, these states are the ones in which popular sentiment has been most opposed to compulsory vaccination," the statisticians point out.

The 12 states are California, Colorado, Idaho, Iowa, Montana, Nevada, Oklahoma, Oregon, Texas, Utah, Washington, and Wisconsin. Falling in the same class of above-average prevalence of smallpox during 1933 was the Canadian province of Saskatchewan.—*Science News Letter*, Dec. 1, 1934.

Mental Hygiene and Public Health.—At the twenty-fifth anniversary dinner of The National Committee for Mental Hygiene, held Nov. 14, at the Hotel Waldorf-Astoria, New York City, Dr. M. J. Rosenau, professor of preventive medicine and hygiene, Harvard Medical School, said that mental hygiene is a large and important chapter in the book of preventive medicine. It is a newcomer and has not yet found its fixed place in public health procedures, but when more is known about it, mental hygiene will take an abiding place in organized health activities. Mental hygiene has breadth and depth. It is diffuse and rubs elbows with almost all human activities. It is especially a connecting link between public health and social welfare.

Mental hygiene does not consist simply in preventing damage to the brain and in avoiding disorders of the mind, but concerns itself more particularly with the most difficult and complex problem of progress, namely, attaining and maintaining a sound mind. The ultimate object of health is a positive quality that must encompass the whole man, which includes his physical, mental, and spiritual make-up. The ultimate in mental hygiene means mental poise, calm judgment, and an understanding of leadership and fellowship—in other words, coöperation, together with an attitude that tempers justice with mercy and humility. The sum total of all these qualities is ordinarily called common sense, which is the quintessence of mental health. If some of this could be achieved, first in more individuals and then as a group psychology, it would not only increase individual happiness and the joy of life, but would give greater stability to institutions and cure many of the present ills of society. With a community enjoying mental health, civilization would advance with a firmer step. It would contribute to the achievement of social justice. It would help soften depressions such as the world is now in, and as a climax would furnish the good will and the good sense to avoid war and achieve peace.

A troubled world is one that is mentally sick. In order to prevent and cure these disorders in the individual as well as in society, more must be known about the mind and its workings. It is an axiom in preventive medicine that success with a disease depends upon the knowledge of that disease. In order to have a sound

program for mental hygiene, more must be known about the structure and function of the mind, its relation to the body, and the causes of abnormal behavior.

Conserving the Sight of School Children.—Approximately 3,000,000 school children in the United States—one-eighth of the entire school population—are handicapped in their education by defective eyesight, it is disclosed in the report of a Joint Committee of the National Education Association and the American Medical Association cooperating with the National Society for the Prevention of Blindness. Farsightedness is the most common visual defect. At the present time, 6000 children are enrolled in the 458 sight-saving classes maintained by 145 communities. However, additional classes are needed for about 44,000 other children.

Morbidity in Pennsylvania in February, 1935

Locality	Disease				
	Diphtheria	Measles	Scarlet Fever	Typhoid Fever	Whooping Cough
Aliquippa	0	54	2	0	0
Allentown	1	7	7	0	19
Altoona	0	776	9	0	0
Ambridge	0	0	0	0	0
Arnold	0	27	3	0	1
Beaver Falls	0	0	3	0	1
Bellevue	1	0	1	1	0
Berwick	0	8	18	0	0
Bethlehem	0	0	0	0	0
Braddock	0	29	0	0	1
Bradford	0	21	0	0	2
Bristol	0	2	0	0	4
Butler	0	51	3	0	0
Canonsburg	0	23	4	0	0
Carbondale	0	0	2	0	0
Carlisle	0	0	1	0	0
Carnegie	0	6	0	0	3
Chambersburg	0	0	6	0	0
Charleroi	0	15	3	0	0
Chester	0	1	2	0	4
Clairton	0	3	8	0	0
Coatesville	0	0	0	0	0
Columbia	0	0	0	0	0
Connellsville	0	27	1	0	0
Conshohocken	0	0	1	0	0
Coraopolis	0	37	37	0	0
Dickson City	0	0	0	0	0
Donora	0	11	0	0	7
Dormont	0	0	0	0	0
Du Bois	0	0	3	0	0
Dunmore	1	20	0	0	0
Duquesne	0	11	0	0	0
Easton	0	21	12	0	2
Ellwood City	0	18	1	0	0
Erie	1	11	21	0	4
Farrell	1	0	1	0	0
Franklin	0	29	3	0	0
Greensburg	0	0	2	0	0
Hanover	0	0	4	0	0
Harrisburg	9	46	8	0	14
Hazleton	1	102	1	0	6
Homestead	2	16	16	0	4
Jeannette	0	42	0	0	0
Johnstown	4	49	12	0	1
Kingston	2	55	1	0	3
Lancaster	0	4	63	0	2
Latrobe	0	5	1	0	4
Lebanon	0	0	1	0	1
Lewistown	1	1	2	0	0
McKees Rocks	1	0	1	0	0
McKeesport	0	68	1	0	1
Mahanoy City	0	0	2	0	0
Meadville	0	2	0	0	0
Monessen	0	5	7	0	10
Mount Carmel	0	0	0	0	0
Munhall	0	31	18	0	0
Nanticoke	0	2	0	0	0
New Castle	0	0	9	0	0
New Kensington	2	141	2	0	0
Norristown	0	0	3	0	8
North Braddock	0	45	0	0	0
Oil City	0	26	8	0	5
Old Forge	0	3	0	0	0
Olyphant	0	0	1	0	0
Philadelphia	13	22	190	0	168
Phoenixville	0	0	0	0	0
Pittsburgh	16	779	81	0	51
Pittston	0	0	0	0	0
Plymouth	0	1	0	0	0
Pottstown	0	3	9	0	0
Pottsville	0	0	0	0	1
Reading	0	26	23	0	24
Scranton	2	638	8	0	3
Shamokin	0	0	0	0	0
Sharon	1	0	5	0	0
Shenandoah	0	0	1	0	0
Steelton	0	1	0	0	0
Sunbury	0	4	0	0	2
Swissvale	0	17	2	0	0
Tamaqua	0	2	7	0	1
Taylor	0	15	0	0	0
Turtle Creek	0	127	5	0	0
Uniontown	0	4	4	0	0
Vandergrift	0	0	3	0	0
Warren	0	1	1	0	0
Washington	0	113	4	0	0
Waynesboro	0	1	7	1	0
West Chester	0	0	0	0	0
Wilkes-Barre	4	34	5	0	10
Wilkinsburg	0	97	32	0	4
Williamsport	0	82	9	0	19
York	0	8	2	0	2
Townships					
Allegheny County:					
Harrison	0	4	0	2	0
Mt. Lebanon	0	0	0	0	0
Stowe	0	1	1	0	0
Delaware County:					
Haverford	0	1	1	0	7
Upper Darby	2	0	8	0	4
Luzerne County:					
Hanover	0	8	0	0	0
Plains	0	5	0	0	0
Montgomery County:					
Abington	0	0	3	0	7
Cheltenham	0	1	2	0	11
Lower Merion	1	0	1	0	0
Total Urban ..	66	3,846	729	4	421
Total Rural ..	92	6,502	1,090	18	536
Total State ..	158	10,348	1,819	22	957

TUBERCULOSIS ABSTRACTS

A Review for Physicians

PREPARED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Published through the coöperation of the Pennsylvania Tuberculosis Society and The Medical Society of the State of Pennsylvania

ONLY about one out of each 6 cases admitted to tuberculosis sanatoria is an incipient case. Years of public education and of urging people to consult the doctor at the first appearance of symptoms have not succeeded in materially increasing the ratio of early cases to moderately and far advanced cases. One reason why both the specialist and the general practitioner seldom see tuberculosis in its incipency is probably because the disease often begins as an acute subapical lesion. Such lesions develop rapidly into far advanced disease before they are recognized. The authors of a paper on this subject, published 6 years ago, have accumulated additional data and these substantiate their original views.

SUBAPICAL TUBERCULOSIS

In earlier communications attention was called to subapical tuberculosis based on a study of 200 cases. Now that the series has been brought up to 1000 cases the conclusion that progressive and destructive pulmonary tuberculosis usually begins suddenly with exudative subapical lesions seems justified. While later statistical material shows some change over that of the 200 original cases, the conclusions drawn from the original report are restated with additional support.

The older concept of pulmonary tuberculosis is that it usually begins quite incipiently with a small lesion in the apex of the lung and spreads caudalward, and that the symptoms and physical findings are so elusive as to escape all but the keenest diagnostician. The majority of patients present themselves first with far advanced dis-

ease; incipency as seen in the apical lesion is seldom found. The authors believe the acute subapical lesion is the more frequent as the truly incipient lesion and that such lesions often develop into far advanced disease before they are recognized for the reason that they increase rapidly in extent.

The study is not to be construed as an attempt to classify pulmonary tuberculosis into confusing subgroups, but rather as a means of throwing light on the diagnosis, treatment, and prognosis through a proper appreciation of the history of onset and course, and the location and nature of the disease.

The picture of the case with a typical subapical lesion, with its acute manifestations, as against the one with apical involvement, is as follows:

	SUBAPICAL	APICAL
<i>Onset:</i>		
1. Clinically	Sudden	Insidious
2. Anatomically	Acute bronchopneumonic infiltration	Discrete, productive tubercles
3. Localization	Subapical	Apical
<i>Course:</i>		
1. Clinically	In acute exacerbations	Slow progression or long period of standstill
2. Anatomically	Rapidly progressive or retrogressive changes interrupting chronic course	Very slow changes
3. Direction of progression	Toward apices and caudalward	Apicocaudal
4. Extent of lesion	Large extent already in incipient stage	Incipient stage identical with minimal stage
5. Cavitation	Early occurrence and frequent	Late occurrence and relatively infrequent
6. Duration	Relatively short	Very long
7. Healing	Absorption and/or massive fibrosis	Localized fibrotic scars

Summary

1. Progressive and destructive pulmonary tuberculosis usually begins suddenly with exudative subapical lesions.

2. Lesions, far advanced, and excavations frequently develop within less than 6 months.

3. Processes leading to active progression and to excavation are most frequently associated with acute symptoms.

4. Physical signs and symptomatology (traditionally described as characteristic for incipient tuberculosis) are misleading for the detection of truly incipient subapical acute processes.

Acute Subapical Versus Insidious Apical Tuberculosis, Douglas, Nalbant, and Pinner, Am. Rev. of Tuber., Feb., 1935.

Most articles on pregnancy and tuberculosis present a pessimistic outlook. A study of the cases at Sea View Hospital, New York, at first gave a similar point of view but on careful investigation it appeared that pregnancy had very little effect on the course of the disease and that the character of the pulmonary form of tuberculosis determined the destiny of the patient.

PREGNANCY AND TUBERCULOSIS

The records of 85 patients who had tuberculosis and who were delivered at Sea View Hospital during the past 10 years were studied. The average duration of stay before confinement was 2.1 months; and the average after delivery was 3 months. Of the 85 cases, 36 per cent died, 18 per cent were unimproved or progressed, and 46 per cent improved. This corresponds with statistics of other writers. But when these figures were compared with a control group of nonpregnant females with pulmonary tuberculosis it appeared that the pregnant woman stands as good a chance as her nonpregnant sister, if not a better one.

The cases were divided into groups, classified according to the character of the pulmonary pathologic processes. This qualitative classification divides pulmonary tuberculosis into 2 main groups—exudative and productive.

Exudative reactions are characterized by high tissue sensitivity and are immediate and explosive. The greater the mass or dosage of tubercle bacilli the more likely the opportunity for over-irritation and resultant cell death. The exudative type is subdivided into the benign exudative, the exudative-productive, and the caseous-pneumonic. The productive form results when tissue sensitivity is low and dosage of bacilli is small. The reaction is cellular with a tendency toward fibroid tissue formation.

In the regrouping of the 85 pregnancy-tuberculosis cases, 51 cases were classified as caseous-pneumonic, 9 as resolving-exudative and 25 as productive. There were 31 deaths and all were in

the caseous-pneumonic group. The prognosis of caseous-pneumonic tuberculosis is bad; the majority of cases end fatally.

To determine whether the high toll in the group classified as caseous-pneumonic was due to the complication of pregnancy or to the disease itself a comparison was made with 51 nonpregnant females having caseous-pneumonic tuberculosis. In the pregnancy group, 41 cases (80.37 per cent) died or progressed and 10 (19.6 per cent) improved. In the nonpregnant group 48 cases (94 per cent) died or progressed and 7 (6 per cent) improved.

In summary the study revealed "that the bad prognosis did not depend on the pregnancy but on the character of the pulmonary tuberculosis. All deaths in the pregnant group at Sea View Hospital were in the caseous-pneumonic group. On the other hand, in the resolving exudative and chronic productive groups, in which the prognosis is better and usually good, there were no deaths. In 34 such cases there were no deaths in the hospital and most of the patients were discharged as improved. Pregnancy had only a minor effect on the prognosis of the disease in the caseous-pneumonic group, for which it shortened the usual span of life compared with the nonpregnant group. In the other 2 groups there were no deleterious effects of pregnancy on the disease."

The Influence of Pregnancy on Pulmonary Tuberculosis, Ornstein and Koznat, Am. Rev. of Tuber., Feb., 1935.

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WALTER F. DONALDSON, M.D., *Secretary*, 8104 Jenkins Arcade, Pittsburgh, Pa.

AMENDMENTS TO THE CONSTITUTION

Proposals for amendments or alterations to the Constitution and By-Laws of our Society, if offered during the interim between annual sessions, must be sent to the Secretary of the Society at least 4 months before the next annual session and must be published in the JOURNAL at least 3 months in advance. The Official Call for our next annual session, which will be published in the June number, should include all proposals for amendments or alterations. Same should be mailed so as to reach the Secretary's office not later than June 1.

JUNE 10-14 AT ATLANTIC CITY HAVE YOU A 1935 FELLOWSHIP CARD?

We as members of The Medical Society of the State of Pennsylvania are particularly fortunate again this year in having the annual session of the American Medical Association meet so close to our own borders. Although hundreds of our members will no doubt take advantage of this opportunity for graduate education at "The Playground of the World," they are reminded that none but Fellows of the American Medical Association may register or take part in the discussions of the scientific sections. All members of our county and state medical societies are members of the American Medical Association, but only those who have made formal application for *Fellowship* and paid the subscription price for the *Journal of the A. M. A.* are Fellows.

Any member who is not a Fellow may make use of the application blank on the opposite page, which was also published in the April issue of the JOURNAL, forwarding it at once to Secretary Olin West, 535 N. Dearborn St., Chicago, Ill.

SYPHILITIC SURVEY OF THE STATE EMERGENCY RELIEF BOARD

The Commission on Maternal Welfare of our State Society, impressed with the great opportunities for constructive service connected with the proposed study of syphilis existent among pregnant women, has offered to coöperate in the state-wide survey proposed by the Emergency Relief Board of Pennsylvania. (See page 648 of this issue.)

Pointing out that a proper series of salvarsan injections begun early enough in pregnancy not only helps the prospective mother but assures the birth of a nonsyphilitic child, Chairman James S. Taylor of our Commission on Maternal Welfare has expressed the hope that physicians accepting relief medical orders for obstetric cases will enter enthusiastically into this newest phase of medical relationship with federal and state emergency relief groups. This work will bring to participating physicians not only the satisfaction of taking part in an interesting and constructive survey, but will add to their incomes from professional services to maternity cases among the unemployed.

In the future, physicians participating in relief obstetric service will be divided into 2 classes: (1) Those who wish to continue obstetric work in compliance with the Rules and Regulations as they existed before May 1, 1935; and (2) those who notify their county medical society advisory committee that they wish to participate also in the syphilitic survey.

This latter group will receive besides the usual \$20 emergency relief service obstetric fee an additional \$5 for collecting blood for a Wassermann test from each patient presenting a relief medical order for obstetric service.

It is estimated that but one in 17 of these pa-

tients will give the positive serologic reaction necessitating the antisyphilitic treatment required by the Federal Emergency Relief Administration. Therefore, theoretically, each physician who elects to participate in the obstetric syphilitic survey will receive \$80 for having collected blood for Wassermann tests from 16 such patients before he contacts his seventeenth case, which will require his administering, without additional fee, to the patient giving the positive Wassermann reaction antisyphilitic remedies, which will be provided without cost.

LIMITED CHOICE OF PHYSICIAN

President Moses Behrend states that since his letter of April 4, under the caption "A Call to Arms," was mailed to each member of the State Society, he has personally received many replies, most of which embodied inquiries concerning the proposed limited choice of physician by the injured employee. It therefore becomes apparent that many of our members do not realize that, under Pennsylvania's Workmen's Compensation Act on the statute books for more than 20 years, only the employer or his representative insurance carrier may legally choose the attending physician.

Under House Bill No. 1199, amending Pennsylvania's Workmen's Compensation Law, and now under consideration by the Legislature, a liberalization of the present law is provided whereby an injured employee would be given the right to select his own physician without the consent of the employer or the insurance carrier by the following process:

The injured employee upon written request to the board or a referee designated by the board and notice to the employer may be permitted by the board to consult a physician of his own choice at any time during his disability, the cost of such consultation to be paid by the employer in accordance with a schedule of charges to be prescribed and approved by the board.

President Behrend further states: "This is of great importance to the employee who lacks confidence in his treatment, or when he believes that he will not receive whole-hearted devotion to his interests from the doctor chosen by his employer. Since the inception of Pennsylvania's law in 1915 until a comparatively short time ago, I advocated absolute free choice of physician, but on account of the introduction of culps it must be obvious to every one that there must now be a limited choice."

It is evident that many of those who have written President Behrend have not properly evaluated other proposals embodied in the vari-

ous amendments now being considered to our Workmen's Compensation Law, such as extension of the time for which the employer shall be responsible for the treatment of his injured employee from the present limit of 30 days to a proposed limit of 90 days; also extension beyond the present limit of \$100 as the total which the employer shall be required to spend for the rehabilitation of his injured employee; and finally the proposed amendment giving the attending physician standing in court, whereby he may in his own name bring suit for unpaid accounts for services rendered to injured employees under the benefits of the Workmen's Compensation Act.

Should the Pennsylvania legislature adopt the proposed amendments referred to above, our state would for the first time take its proper rank—on the specific points of limit of time or money provided for rehabilitation—among 43 other states of the Union 30 of which states now place no limit.

Every one of Pennsylvania's important neighboring industrial states has medical benefits unlimited as to time or money, or both, namely, New York, Ohio, New Jersey, West Virginia, Massachusetts, Connecticut, and Illinois.

Pennsylvania's medical benefits have remained unchanged from the least liberal type since the original adoption of our Workmen's Compensation Law in 1915.

WINNER FOURTH ANNUAL PRIZE CONTEST ON CANCER CONTROL

Continuing the precedent established by the Commission on Cancer of The Medical Society of the State of Pennsylvania, under the chairmanship of the late Dr. Jonathan M. Wainwright in 1931, the commission has again awarded a prize of \$50 for the best essay on "How a Nurse Can Help Diminish Deaths from Cancer in Pennsylvania."

There were 32 essays submitted, each under a nom de plume and all of good quality. They were then sent to the State Board of Examiners for Registration of Nurses, and this board has awarded the prize for the best essay to Julia Kemp Hrdina, R.N., Ph.B., Jameson Memorial Hospital, New Castle, Pa., with honorable mention to Louise Tritchler, 1048 Tilghman Street, Allentown, Pa., and Genevieve Burton, R.N., 530 Wyndmoor Ave., Chestnut Hill, Pa.

The Cancer Commission is of the opinion that the coöperation of the nursing profession in the matter of cancer control is a very valuable factor, and we believe that this Annual Prize Con-

test arranged and underwritten by our State Medical Society is a good investment. *

GEORGE E. PFAHLER, *Chairman,*
Commission on Cancer.

SOLICITATION

The Medical Advisory Committee to the State Emergency Relief Board has received information that groups of relief recipients have, on occasion, solicited the signature of selected physicians on petitions. It is said that these physicians are to be favored by members of the group and their families, who will request that their medical orders be issued only to such physicians.

Such an effort will violate the spirit of "the traditional family and family-physician relationship" as incorporated in Rules and Regulations Governing Medical Care Provided in the Home to Recipients of Unemployment Relief. Physicians entering into such an agreement or permitting their name to appear on a list of preferred physicians will thus violate the restrictions specified in the Rules and Regulations and be ineligible for participation.

Please refuse to sign any petition or enter into any agreement directly or indirectly tending toward such ends. Feel free to consult your State or County Medical Advisory Committee concerning any solicitation which may be considered improper or questionable.

W. EGBERT ROBERTSON,
W. BURRILL ODENATT,
CHARLES H. SMITH,
HENRY T. PRICE,
WALTER F. DONALDSON,
GEORGE L. LAVERTY, *Chairman,*
Medical Advisory Committee
to the State Emergency Relief
Board.

POSTGRADUATE MEDICAL
INSTRUCTION

To any casual observer of the current activities of The Medical Society of the State of Pennsylvania who harbors the thought that our membership is concerned only with threatening state legislation as it involves the health of the public or the methods of the delivery of medical service to the people we point with pride to the society's current activities in graduate medical education.

Since the inauguration in 1933 of the present State Society plan large graduate classes have been organized in more than a score of county societies throughout the state. These activities

are exclusive of splendid forms of graduate work provided separately by a number of the larger county medical societies. In western Pennsylvania alone 9 county societies have organized classes ranging in numbers from 26 to 72 which have received from teachers connected with the University of Pittsburgh Medical School a course of 6 clinical and didactic seminars adapted to the wishes of each group. In one mountain county 31 of the 34 medical society members joined the class. Inasmuch as such a course costs each class member \$10 the determination of our membership to keep abreast of medical progress is thus significantly illustrated. Needless to state many county societies in other parts of the state are enjoying their second postgraduate series under the State Society plan and the tutelage of experienced teachers from the medical schools of Philadelphia.

Representatives of county medical societies not yet familiar with the low cost and the great benefits of this form of graduate instruction are urged to communicate with any of the members of the Committee on Postgraduate Education. (See page 646, this issue.)

THE PACKAGE LIBRARY

Authors of surgical, medical, or special articles published in state or national journals are requested to submit duplicate reprints of such articles to the Librarian, The Medical Society of the State of Pennsylvania, 230 State Street, Harrisburg.

By this coöperation we hope to build up an adequate package library service as quickly as possible.

WALTER F. DONALDSON,
FRANK C. HAMMOND,
CLARENCE R. PHILLIPS, *Chairman,*
LIBRARY COMMITTEE.

CONTRIBUTIONS TO MEDICAL
BENEVOLENCE FUND

The Committee on Medical Benevolence makes grateful acknowledgment of the following contribution to the Fund:

Woman's Auxiliary to Tioga County Medical
Society \$5.00

Total contributions since 1934 report ... \$920.00

REPORT OF COMMITTEE ON POST-
GRADUATE EDUCATION

To the Officers of The Medical Society of the State of Pennsylvania:

The following is a report of the present status of the Postgraduate Education Plan adopted by the State Society in 1933.

I have been very much encouraged by the number of county societies which have already adopted the plan and by the number which are planning to start the work this spring. I am deeply grateful to the members of the Postgraduate Education Committee who have been of untold assistance to me in organizing this work. I make special mention of Dr. Utley whose untiring efforts have been responsible for the work in Lawrence, Butler, Venango, Cambria, Somerset, Clearfield, Jefferson, Erie, and Mercer Counties. I am also deeply grateful to the members of the faculties of the University of Pittsburgh, the University of Pennsylvania, Jefferson, Temple, the Woman's Medical College, and the Graduate School of the University of Pennsylvania. Through the unselfish work of these teachers this work has proved most successful in every county which has adopted the plan.

A course has been completed in Lawrence County by a class of 30 members; one has been completed in Butler County by 33 members; a class is in progress in Venango County with 36 members enrolled; a class with 40 members is now in progress in Cambria County, and the local committee expects to report a larger membership than 40; Somerset County has a class of 31 members now taking part in the work; Clearfield and Jefferson Counties will start a course May 16 with 25 members, possibly more enrolled; Erie County at present is having a course of 6 seminars in neurology with 72 members enrolled; Mercer County completed its first course Jan. 23, 1935, with 27 physicians from the county—there was a balance in the treasury at the end of the course and all the members were loud in their praise of the work; Carbondale is pursuing its second course with 25 members; Schuylkill County is repeating the course given last year, with 44 members; Lycoming County is doing the same with 46 members; a class of 45 members began its work in Lancaster Apr. 4, 1935; York and Adams Counties have completed a course composed of 76 members; a class of 60 or more men will be started at Sayre, May 8—in this class are members from Potter, Tioga, Sullivan, Bradford, Wyoming, and Susquehanna Counties, and we expect to have probably 70 members for the first seminar, the same number as were in the class last year; 2 classes are being formed in Northampton County, one to be held at St. Luke's Hospital in Bethlehem and the other at the Easton Hospital. It is our hope that several courses will start during the month of May.

Below is a summary of the number of physicians from various county societies who are being benefited by courses in progress and those who will benefit by courses being organized:

Lawrence	30
Butler	33
Venango	36
Cambria	40
Somerset	31
Clearfield }	25
Jefferson }	
York }	76
Adams }	
Lancaster	45
Schuylkill	44
Lycoming	46
Erie	72
Mercer	27
Lackawanna (Carbondale)	25

Bradford	}	60
Potter		
Tioga		
Sullivan		
Wyoming		
Susquehanna		

Total	590
Northampton (estimated)	50

Respectfully submitted,

DONALD GUTHRIE, *Chairman*, Sayre;
JOHN ATLEE, JR., Lancaster;
NATHAN BLUMBERG, Philadelphia;
NORBERT D. GANNON, Erie;
W. FRANK GEMMILL, York;
WESLEY F. KUNKLE, Williamsport;
FREDERICK B. UTLEY, Pittsburgh.

Committee on Postgraduate Education.

CHANGES IN MEMBERSHIP OF COUNTY SOCIETIES

The following changes have been reported to April 12:

ALLEGHENY: *New Members*—James G. Conti, 62 Washington Place; Joseph B. Anderson, Jenkins Arcade; John D. Donovan, 608 Alger St.; Edward J. Lang, Peoples-East End Bldg.; William Pitchford, 1503 Potomac Ave.; Arthur S. Weiss, 6025 Penn Ave., Pittsburgh; Thomas A. Stevens, 331 Braddock Ave., Braddock; Jack Z. Rohm, 217 E. Main St., Carnegie. *Reinstated Members*—Rutherford T. Johnstone, 10 California Ave., Avalon; Abraham L. Trevaskis, 508 Penn Ave., Turtle Creek. *Deaths*—Richard W. Lang, Pittsburgh (Univ. Pgh., '21), Mar. 19, age 40; Herman Groth, Pittsburgh (Univ. Pgh., '02), Mar. 21, age 66; David M. Perkins, Pittsburgh (Univ. Pgh., '93), Mar. 31, age 70.

ARMSTRONG: *New Member*—Roswell H. Fichthorn, Manorville.

BEAVER: *New Member*—Howard Swick, Beaver Falls. *Reinstated Member*—Emmett S. Burns, Beaver Falls. *Transfer*—Harry Dale Mowry, Ambridge, from Philadelphia County Society.

BERKS: *New Members*—Matthew J. Boland, 406 N. Fifth St.; L. Gwyn Van Loon, 941 Franklin St., Reading.

BLAIR: *New Member*—Richard Denny, 1918 12th Ave., Altoona.

CAMBRIA: *Reinstated Member*—Edward C. Dankmeyer, 240 Market St., Johnstown.

CHESTER: *Transfer*—Charles J. Stein, Box 313, Oxford, from Allegheny County Society (from affiliate to active membership). *Removal*—C. Ira Pratt from Parkesburg to Coatesville. *Resignation*—Everett M. Aikman, Essex Falls, N. J.

CRAWFORD: *New Members*—John P. Hobson, Springboro; Richard K. Frawley, Titusville; Joseph A. Mancuso, 901 Park Ave., Meadville; Daniel Maloney, Saegertown; Ruth A. Kreitz, Cambridge Springs. *Transfer*—Richard E. Breneman, City Hospital, Meadville, from Allegheny County Society; Lewis O. Tynnor, Conneaut Lake, from Erie County Society.

ERIE: *New Member*—William V. Sarine, North Girard. *Reinstated Member*—Daniel W. Kramer, 920 E. 21st St., Erie.

INDIANA: *Death*—Frank D. Glenn, Blairsville (Univ. Pgh., '04), Mar. 9, age 56.

JEFFERSON: *New Members*—Ernest P. Gigliotti, 215 N. Findlay St., Punxsutawney; Lewis R. McCauley, Hastings.

LACKAWANNA: *New Members*—Sidney W. Lockett, 411 Minooka Ave., Moosic; Harold R. Reed, Waverly.

LANCASTER: *Removal*—Russell C. Smith from Lititz to 34 E. Eagle Road, Upper Darby. *Death*—George R. Rohrer, Lancaster (Univ. Pa., '80), Mar. 31, age 82.

LAWRENCE: *Reinstated Member*—Henry E. Helling, Ellwood City.

LEBANON: *New Members*—William F. Finnegan, Charles E. Gardner, Lebanon; C. C. Hoffman, Palmyra.

LEHIGH: *Death*—Frank S. Boyer, Allentown (Med. Chi. Coll., Phila., '98), Mar. 23, age 60.

LUZERNE: *New Member*—Matthew J. Drogowski, 602 Center St., Freeland. *Death*—Alex. H. Dean, Wilkes-Barre (Jeff. Med. Coll., '00), Mar. 19, age 60.

LYCOMING: *Death*—Herman F. W. Flock, Williamsport (Jeff. Med. Coll., '20), Mar. 6, age 40; Charles W. Youngman, Williamsport (Jeff. Med. Coll., '83), Mar. 5, age 77.

MERCER: *Removal*—Irvin E. Rosenberg from Sharon to 520 Idaho St., Farrell.

MIFFLIN: *Removal*—Charles H. Brisbin from Yeagertown to N. Main St., Lewistown.

MONTOUR: *New Member*—Peter O. Kwiterovich, State Hospital, Danville.

MONTGOMERY: *New Members*—Elmer F. Herring, Wyncote; Charles T. Ricker, Cheltenham.

NORTHAMPTON: *New Member*—Charles A. Nicholas, 38 N. Ninth St., Easton. *Death*—Edgar M. Green (Univ. Pa., '86), Mar. 9, age 73.

NORTHUMBERLAND: *New Members*—Sterling C. King, 414 Main St., Watsonstown; John Robert Vastine, 78 E. Sunbury St., Shamokin. *Reinstated Member*—George H. Kohlbraker, 202 E. Sunbury St., Shamokin. *Transfer*—Paul N. Friedline, Dalmatia, from Cambria County Society.

PERRY: *Transfer*—John E. Romig, Duncannon, from Northumberland County Society.

PHILADELPHIA: *New Members*—Wendell C. Hall, Penna. Hosp., 8th and Spruce Sts.; Irvin Stein, 68th Ave. and 13th St.; Moore Lowry Allen, 43d and Locust Sts.; Savere F. Madonna, 2925 N. 24th St., Philadelphia; Frank Washick, 115 Central Ave., Cheltenham. *Reinstated Members*—Carl Bachman, McGill Univ., Montreal, Canada; Virgil H. Moon, Bryn Mawr; Lewis J. Houser, 709 Chestnut St., Frederick J. Fox, 5211 Castor Ave., Philadelphia. *Resignation*—Edgar W. Tully, Philadelphia. *Death*—Albert Bernheim, Philadelphia (Univ. Louisville, '97), Feb. 15, age 66; Walter S. Hargett, Philadelphia (Univ. Pa., '05), Mar. 8, age 55; Thomas C. Stellwagen, Jr., Philadelphia (Jeff. Med. Coll., '03), Mar. 15, age 56; Frank White, Philadelphia (Univ. Pa., '91), Mar. 28. *Transfer*—Wilbur Bailey, 1212 Shatto St., Los Angeles, Calif., to California State Society.

SCHUYLKILL: *New Members*—Myles J. Murphy, Julian Flaig, Pottsville; Robert E. Hobbs, Shenandoah; Oden A. Schaeffer, Coral Gables, Fla. *Death*—Rudolph A. Constien, Ashland (Univ. Pa., '00), Mar. 24, age 57.

SOMERSET: *New Members*—Harold G. Haines, Berlin; Bradley H. Hoke, Jr., Salisbury.

WASHINGTON: *Reinstated Member*—Harold E. Weller, Monongahela; James E. Wilson, Canonsburg.

WESTMORELAND: *New Member*—Harry Lubow, 304 Main St., Irwin.

YORK: *Reinstated Member*—Carroll H. Gerry, Shrewsbury.

PAYMENT OF PER-CAPITA ASSESSMENT

The following payment of per-capita assessment has been received since March 14. Figures in first column indicate county society numbers; second column, State Society numbers:

Mar. 15	York	108-111	5103-5106	\$30.00
	Lebanon	23-28	5107-5112	45.00
	Mercer	41-54	5113-5126	105.00
	Huntingdon	21-25	5127-5131	37.50
	Clearfield	43-51	5132-5140	67.50
	Delaware	111-119	5141-5149	67.50
	Bucks	29-36	5150-5157	60.00
16	Lawrence	7-57	5158-5208	382.50

Mar. 16	Cambria	96-125	5209-5238	\$225.00
	Greene	24	5239	7.50
18	Beaver	53-67	5240-5254	112.50
	Mercer	55-58	5255-5258	30.00
	Montour	30-38	5259-5267	67.50
19	Erie	100-106	5268-5274	52.50
	McKean	40-42	5275-5277	22.50
	Berks	70, 94, 132-134, 136-138	5278-5285	60.00
	Allegheny	781-950	5286-5455	1275.00
20	Lehigh	80-107	5456-5483	210.00
	Mercer	59-60	5484-5485	15.00
	Venango	40-42	5486-5488	22.50
	Philadelphia	1374-1453	5489-5568	600.00
	Washington	70-93	5569-5592	180.00
	Bradford	28-33	5593-5598	45.00
21	Crawford	1-41	5599-5639	307.50
	Schuylkill	49-96	5640-5687	360.00
	Armstrong	37-40	5688-5691	30.00
	Franklin	51-55	5692-5696	37.50
	Lancaster	125-150	5697-5722	195.00
	Mercer	61-62	5723-5724	15.00
	Lackawanna	141-173	5725-5757	247.50
	Monroe	30	5758	7.50
	Wayne-Pike	14	5759	7.50
22	Delaware	120-128	5760-5768	67.50
	Blair	65-70	5769-5774	45.00
	Northumberland	67-69	5775-5777	22.50
	Somerset	31-37	5778-5784	52.50
	Berks	139-141	5785-5787	22.50
	Mifflin	25	5788	7.50
23	McKean	43-44	5789-5790	15.00
	Luzerne	216-265	5791-5840	375.00
	Lancaster	151-157	5841-5847	52.50
	Westmoreland	65-100	5848-5883	270.00
	Berks	142-143	5884-5885	15.00
	Cumberland	31-34	5886-5889	30.00
	Lycoming	91-95	5890-5894	37.50
	Lebanon	29-31	5895-5897	22.50
	Montour	39-40	5898-5899	15.00
	Montgomery	153-165	5900-5912	97.50
	York	112-118	5913-5919	52.50
	Washington	95-97	5920-5922	22.50
	Tioga	15-21	5923-5929	52.50
	Dauphin	163-189	5930-5956	202.50
	Cambria	126-137	5957-5968	90.00
28	Lackawanna	174-198	5969-5993	187.50
	Jefferson	15-38	5994-6017	180.00
	Clearfield	52-59	6018-6025	60.00
	Mifflin	25	6026	7.50
	Beaver	68-70	6027-6029	22.50
	Tioga	22	6030	7.50
	Delaware	129-130	6031-6032	15.00
	Clarion	23-28	6033-6038	45.00
26	Northampton	68-80	6039-6051	97.50
	Erie	107-125	6052-6070	142.50
	*Erie	152	8057	7.50
	York	119-126	6071-6078	60.00
	Franklin	56-57	6079-6080	15.00
	Fayette	88-95	6081-6088	60.00
	Monroe	21-22	6089-6090	15.00
27	Butler	36-40	6091-6095	37.50
	Lebanon	32-34	6096-6098	22.50
	Center	25	6099	7.50
	Mercer	63	6100	7.50
	Armstrong	41-43	6101-6103	22.50
	Greene	25	6104	7.50
	Susquehanna	15	6105	7.50
28	Venango	43	6106	7.50
	Somerset	38-39	6107-6108	15.00
29	Monroe	23	6109	7.50
	Mercer	64-68	6110-6114	37.50
	Northampton	67, 81-87	6115-6122	60.00
	Lawrence	58-66	6123-6131	67.50
	Erie	126-134	6132-6140	67.50
	Adams	17-19	6141-6143	22.50
30	Franklin	58-60	6144-6146	22.50

Mar. 30	Cambria	138-168	6147-6177	\$232.50
	Schuylkill	97-120	6178-6201	180.00
	Perry	1-6	6202-6207	45.00
	Wyoming	7-14	6208-6215	60.00
	Lycoming	96-100	6216-6220	37.50
	York	127-131	6221-6225	37.50
	Delaware	131-135	6226-6230	37.50
	Venango	44-46	6231-6233	22.50
	Lackawanna	200-217	6234-6251	135.00
	*Allegheny	1312	8058	7.50
	Allegheny	951-1117	6252-6418	1252.50
	Washington	98-116	6419-6437	142.50
	Lackawanna	1, 218-232	6438-6453	120.00
	Dauphin	190-204	6454-6468	112.50
	Northumberland	70-75	6469-6474	45.00
	Tioga	23-25	6475-6477	22.50
	Center	26	6478	7.50
	Cambria	169-170	6479-6480	15.00
	Bucks	37-44	6481-6488	60.00
	Monroe	24	6489	7.50
	York	132	6490	7.50
	McKean	45	6491	7.50
	Delaware	136-139	6492-6495	30.00
	Mercer	69-70	6496-6497	15.00
	Montgomery	166-173	6498-6505	60.00
	Elk	11-20	6506-6515	75.00
	Venango	47-49	6516-6518	22.50
	Lawrence	67-68	6519-6520	15.00
	Lycoming	101-112	6521-6532	90.00
	Indiana	32-34	6533-6535	22.50
	Crawford	42-53	6536-6547	90.00
	Erie	135-142	6548-6555	60.00
	Northampton	90-111	6556-6577	165.00
	McKean	46-47	6578-6579	15.00
	Jefferson	39-47	6580-6588	67.50
	Armstrong	44	6589	7.50
Apr. 3	Berks	144-156	6590-6602	97.50
	Philadelphia	1454-1923	6603-7072	3525.00
	Schuylkill	121-136	7073-7088	120.00
	Armstrong	45	7089	7.50
	Northumberland	76-78	7090-7092	22.50
	Adams	20	7093	7.50
	Erie	143-152	7094-7103	75.00
	Crawford	54-55	7104-7105	15.00
	Schuylkill	137	7106	7.50
	4 Luzerne	266-301	7107-7142	270.00
	Northumberland	79-81	7143-7145	22.50
	Lawrence	69	7146	7.50
	Huntingdon	26	7147	7.50
	Jefferson	48	7148	7.50
	Lackawanna	233-248	7149-7164	120.00
5	Adams	21-22	7165-7166	15.00
	Delaware	140-141	7167-7168	15.00
	Fayette	96-107	7169-7180	90.00
	Blair	71-95	7181-7205	187.50
6	Bedford	16	7206	7.50
	Philadelphia	1924-1969	7207-7252	345.00
	8 Lycoming	113-116	7253-7256	30.00
	Delaware	142	7257	7.50
	Columbia	31-32	7258-7259	15.00
	Indiana	27-31, 35-36	7260-7266	52.50
	Luzerne	302-307	7267-7272	45.00
	Cumberland	35-37	7273-7275	22.50
	Washington	117-118	7276-7277	15.00
	Beaver	71-83	7278-7290	97.50
9	Center	27	7291	7.50
	York	133	7292	7.50
	Delaware	143	7293	7.50
	Montgomery	174-176	7294-7296	22.50
	Bradford	34-39	7297-7302	45.00
	10 Lawrence	70	7303	7.50
	Erie	153-156	7304-7307	30.00
	Venango	50	7308	7.50
11	Somerset	40	7309	7.50
	Columbia	33	7310	7.50
	Wayne-Pike	15-19	7311-7315	37.50

COMMITTEE ON SCIENTIFIC WORK

STANLEY P. REIMANN, M.D., *Chairman*,
Philadelphia

PROGRAM OF THE SECTION ON SURGERY

The section officers have endeavored to arrange a varied surgical program embracing subjects that should be of equal value to the general practitioner and specialist. In arranging this program we have had the fullest coöperation of Dr. Stanley P. Reimann, chairman of the Committee on Scientific Work.

One feature is a combined session with the Section on Medicine on gallbladder disease and pulmonary tuberculosis. Both the medical and surgical aspects of the conditions are to be considered. Two outstanding guest speakers have consented to appear.

Head injuries which comprise a large percentage of injuries from automobile accidents will be considered by a guest speaker of national and international prominence. "The Latest Developments in the Management of Patients with Painful and Pendulous Breasts," will be discussed. Subjects on traumatic, orthopedic, and gynecologic conditions have been arranged.

EMERGENCY MEDICAL RELIEF IN PENNSYLVANIA

HAROLD A. MILLER, M.D., *Director*
Harrisburg

A SYPHILITIC SURVEY*

The federal government has indicated its desire to make a survey of the incidence of syphilis in some particular type of relief patients. The only group available, as a whole, are obstetric cases. The following set-up has been approved by the Commission on Maternal Welfare of The Medical Society of the State of Pennsylvania and the Medical Advisory Committee of the Pennsylvania State Emergency Relief Board.

All physicians are eligible to participate in this syphilitic survey. To participate, the physicians must apply for participation, signify their willingness to treat cases of syphilis, and follow the treatment specified by the federal government, as outlined in their booklet entitled "Standard Treatment Procedure in Early Syphilis," in each and every case. Those participating shall receive an additional compensation of \$5 (making a total of \$25) for each and every obstetric case completed in accordance with the above outline. Those failing to make Wassermann tests on each and every patient will not be considered as participants in the survey or the additional compensation allowed. (Such physicians may continue to accept relief obstetric work as formerly provided in the Rules and Regulations.)

If possible, all pregnant women are to have blood

* 1934 dues.

* Sponsored by the federal government through the State Emergency Medical Relief Department.

specimens taken for Wassermann examination at the time of the first contact, but under any circumstances at the time of the second contact, which must be made within the week following the date of first contact. This specimen is to be sent to the laboratory of the State Department of Health. The laboratory report, whether positive or negative, must be *stapled* or otherwise *firmly attached* to the obstetric order. In all cases in which a positive report is returned to the attending physician, the physician must treat the particular case in accordance with the booklet entitled "Standard Treatment Procedure in Early Syphilis," as outlined by the federal government, which will be furnished the physician upon request. This treatment must be carried through for at least 6 months, but under any and all circumstances to the end of the puerperal period (6 weeks after delivery). Blood for the Wassermann examination is to be taken from the vein or the cord of children born of a syphilitic mother and the report thereof *stapled to* or otherwise *firmly attached* to the medical order or an attached sheet. In cases in which the infant is born dead, gross manifestation of syphilis, if any, should be recorded on the medical order, or a statement made "no evidence of syphilis in the child." A report of gross or microscopic pathologic examination confirming a diagnosis of syphilis in cases in which the infant dies would be appreciated and would add materially to the value of the survey.

It is estimated that syphilis exists in less than 10 per cent of all cases. The additional fee allowed for negative cases (\$5) will, on the average, thus compensate the physician to the extent of \$50 or more for this treatment of the positive cases. Medication, as above directed, will be furnished by the State Department of Health upon request to the local Relief Director, or to the county chairman of either the Medical Advisory Committee or the Maternal Welfare Commission.

At the beginning the Relief Administration will accept all cases upon which obstetric orders are outstanding. It will gradually make the acceptance of a Wassermann examination represent an early period of pregnancy in order that the benefit of treatment may be effective before delivery.

Physicians desiring to participate in this program should apply to their local County Medical Advisory Committee.

County Society Reports

ALLEGHENY

Feb. 19, 1935

"Recent Concepts of the Surgical Treatment of Duodenal Ulcer," was presented by James R. Watson, who said in part: With the advent of abdominal surgery attempts were begun at surgical relief for hemorrhage, perforation, and obstruction. While the treatment of duodenal ulcer is primarily a medical problem, there are certain cases in which medical treatment is entirely out of place or inadequate; these are the complications of the disease and those cases in which medical treatment has failed.

Acute perforation is an obvious surgical indication, there being, however, an increasing conservatism in this respect. Surgery should be restricted to simple closure of the perforation, gastro-enterostomy being used only when closure causes sufficient encroachment

on the lumen to suggest the possibility of postoperative obstruction.

Obstruction is another definite indication for surgery. Lahey has pointed out that obstruction due to inflammation usually responds to medical treatment. Ultimate relief from cicatricial obstruction is obtainable only from surgery.

Hemorrhage. A single hemorrhage is an indication for medical management, but the second one calls for surgery after the bleeding has subsided and the condition permits. Wilkie advises immediate operation preceded and followed by transfusion instead of waiting for the second hemorrhage to subside.

Choice of operation: Partial gastrectomy and the more conservative operations such as pyloroplasty, gastroduodenostomy, or gastrojejunostomy are, roughly speaking, the types most satisfactory. Partial gastrectomy is very successful, but its operative mortality is 6 per cent. Balfour reported relief of symptoms in 80 per cent of the cases in which he used gastrojejunostomy in duodenal ulcer complicated by hemorrhage. It is successful in those long-standing cases of duodenal ulcer that have had repeated medical cures or that have obstruction. Pyloroplasty has certain inherent advantages. It is simple technically and permits excision of nearly all anterior wall ulcers and resection of the duodenal cap. It permits inspection of the posterior wall of the duodenum and operation on an ulcer present there. It permits reconstruction of the pyloric outlet and eliminates the possibility of recurrence of the occasional complications seen after gastrojejunostomy. It has a low operative mortality. Judd and Balfour both report an operative mortality well under 1 per cent, and 90 per cent remain symptom-free. Should recurrent ulceration occur, further operation is not interfered with by the original pyloroplasty. It is not applicable when the duodenum is bound down by adhesions; here some form of lateral gastroduodenostomy is preferred.

It is evident that no one operation is adequate for all duodenal ulcers in which surgery is indicated, but that the different types must be used according to the condition found.

In discussion, Nelson P. Davis said that as far as he knew an ulcer on the stoma has never developed where a posterior no-loop gastro-enterostomy was done for the cure of fibrous obstruction of the pylorus. Medical management of duodenal ulcer has proved satisfactory in a large proportion of uncomplicated cases. Laparotomy for perforation of duodenal ulcer is good treatment if used within the first 6 hours. Many perforate on the anterior surface and require suture with a tab of omentum, in addition, for reinforcement of the catgut sutures. In operation after hemorrhage has ceased it is probably best to excise the ulcer with the cautery, close with catgut sutures, and ligate the large vessels entering the ulcer area. Partial excision of the pylorus is superior to the Finney pyloroplasty. In cases in which chronic cholecystitis and duodenal ulcer exist in the same patient, the ulcer responds a little more promptly following cholecystectomy, possibly because in many patients after removal of the gallbladder there is a temporary relative anacidity, which may favor closure of the ulcer. Clement R. Jones said that ulcer should be viewed as a general condition with the local manifestation seen in ulcer. Management of the life and activities of the patient are fully as important as medical or surgical measures. Focal infection, endocrine dysfunction, nervous disarrangement, occupation, business worries, eye-strain, allergy, nutritional deficiencies, etc., are all part of the problem. Morris A. Hershenson stated that it

is difficult at times to determine by roentgenography whether an ulcer has healed or not, and in such cases the pressure test is valuable. An ulcer on the periphery is easily demonstrated as a silhouette; one on the anterior wall is brought out by pressure with a frame.

Alexander H. Colwell, president-elect of the State Society, discoursed on the attitude of the profession towards health insurance. Mr. H. V. Smith, chief of the Narcotic Drug Control Board of Pennsylvania, gave an address on "Legal Aspects of Narcotic Administration in Pennsylvania."

GEORGE R. HARRIS, *Reporter.*

BERKS

Feb. 12, 1934

The meeting was held at Medical Hall, Reading, President William L. Krick, presiding. Fifty members and guests were present. Edgar S. Buyers, of Norristown, chairman of the Board of Trustees of the State Medical Society, and counselor of the Second Councilor District, spoke on the coming changes of medical legislation and on the maternal welfare survey to be conducted throughout the state. He also announced that the Second Councilor District meeting would be held at the Reading Country Club, Sept. 19. Calvin B. Rentschler, associate in general surgery, Reading Hospital, gave an address on "Immediate and Late Results of Appendicitis Complicated by Peritonitis, Surgically Treated," illustrating his talk with graphs.

Dr. Rentschler said in part: Recently a review of 126 cases of acute appendicitis, occurring between Jan. 1, 1929, and Jan. 1, 1935, was made at the Reading Hospital. The diagnosis was always based on the history and physical findings. The historian must take time to study in detail every complaint and symptom, including the time the family physician was first summoned. Acute appendicitis is a matter of life and death. Occasionally the doctor is called too late, or the patient or family refuses removal to the hospital. In case of absolute refusal, it is better to resign from the case. There is no medical treatment for appendicitis complicated by peritonitis, and it is better for the patient to go to the hospital too soon rather than too late. In almost every family this disease has cost a life; death must be obviated.

Education of the public is quite simple considering the present-day facilities of radio, newspaper, magazine, and lecture privileges. The sooner the public is taught the importance of this disease, the better prepared they will be when the emergency arises. They should be taught the fundamental principles. If there is pain in the abdomen, something serious may be the matter; take no food, and especially no cathartic; call a physician; if the pain persists more than 6 hours, do not look upon it lightly.

The longer a patient goes without a definite diagnosis, the greater are the chances of complications such as appendiceal abscess (indicated by acidosis, marked distention of the abdomen with peristalsis, cold extremities, rapid respiration, and the presence of chest râles) and perforated appendix with peritonitis (with the early symptoms of pain, tenderness, rigidity, rise in temperature, nausea, vomiting, and the spreading of peritonitis after the first day).

Preoperatively, in the case of a very ill patient, a history should be taken and a physical examination made immediately, as well as a routine blood count and urinalysis. As soon as the diagnosis is made an operation should be done unless the condition of the patient

is too grave. Every effort should be made to save a life.

Operation: A right rectus incision was made in most cases, and the omentum and small bowel pushed to the left. The appendix was usually removed by the clamp and cautery method, except in case of an abscess. An appendiceal abscess, whether small or large, should be very carefully drained. In some cases, the incision was closed without even abdominal exploration for the appendix. In the diffuse type, the appendix was always removed without any irrigation.

In all cases in which it was necessary, 2 drains were used, 1 soft rubber tube and a Penrose drain upward toward the liver. Drainage should be laterally from the intestines. In some cases serous fluid was found. The majority of these developed peritonitis and abscess formation followed by death. The others were given transfusions and the abscesses drained. No cases of appendicitis complicated by peritonitis were closed without drainage.

Postoperative treatment consisted of surgical supervision with the patient placed in Fowler's position. Fluids were supplied by mouth after the first 24 to 48 hours. Many patients received intravenous glucose, direct and indirect blood transfusions, stomach lavage, gallbladder drainage, hypodermoclysis, and soap-suds enema. Drains were loosened after the sixth day and removed the following day. Care, thought, and attention should be given to postoperative treatment.

In discussion Cecil F. Freed stated that 20 to 30 years ago so much was said about appendicitis that the subject became trivial. During the period from 1910 to 1928 the mortality rate in appendicitis increased 30 per cent. The mortality in the United States is greater than in any other country, due to the delay in getting the patients to the hospital, and to the use of laxatives. Many people go to the druggists first when they have an abdominal pain. The druggist prescribes castor oil, citrate, etc. Laxatives are often the cause of a ruptured appendix. Even to-day some physicians prescribe them. Eighty to 85 per cent of deaths occur from peritonitis.

The State Society is anxious to have a survey made of every county in the state so that the public and profession will become appendicitis-conscious.

Charles Smith stressed the point that proper attention be given to all persons suffering from abdominal pain, and that diagnosis be made early. If the hospitalization with subsequent operation is properly presented, the patient will most likely go immediately. People are becoming more educated and are depending less on drug-store therapy.

Mar. 12, 1935

The meeting was held at Medical Hall, Reading, President William L. Krick, presiding. Ninety-five members and guests were present. Alfred Stengel, professor of medicine, University of Pennsylvania Medical School, addressed the society on "Nephritis."

Dr. Stengel said in part: The subject of nephritis is a very large one and older classifications divided it into 2 main groups—parenchymatous and interstitial. Under this classification parenchymatous nephritis was recognized as a type in which patients become dropsical, color pallid, and in which the progress of events is more or less rapid. Chronic interstitial nephritis is that type in which the kidney undergoes hardening and in which there is the passage of large quantities of straw-colored urine with small amounts of albumin and casts. This latter type is of longer duration and does not lead to dropsy.

The glomeruli, the most important part of the kidneys, are often overlooked. To-day's classification divides the nephritides into those cases called glomerular nephritis, in which the inflammation of the epithelial lining of the glomeruli predominates, and tubular nephritis, in which the main point of attack is the tubular epithelium.

Nephrosis is a disease of the epithelial cells, and not an inflammatory process. Practically every infectious disease, including the acute exanthems, produces damage of the cells lining the tubules of the kidney. Albumin is found in the urine in most cases. When the temperature returns to normal, the albumin usually disappears. In cases of yellow fever, atrophic liver, and cholera, also severe infections complicated by a nephrosis, patients die from cessation of kidney function. Poisons (such as bichloride of mercury), the kidney of pregnancy, and metabolic diseases cause damage to the glomerular epithelium. The worst cases of nephrosis are those of unknown origin. Lipoid nephrosis, in which the epithelial cells undergo a lipoid degeneration, is characterized by fat droplets in the cells, and is a very serious form. Little is known of its etiology, although it has a curious relationship to pneumonia.

In diffuse and focal nephritis the etiology is the same, usually due to acute infections accompanied by mucous membrane involvement and focal infections of the tonsils, teeth, and other tissues. In tonsillitis and sinusitis patients show albumin, blood cells, and casts in the urine, and sometimes an elevation of blood pressure. After a number of attacks, a chronically damaged kidney results.

The characteristic features of glomerular nephritis are hypertension, tendency to nitrogen retention, and marked cutting down in dyestuffs. In senile kidney disease, there is no hypertension and no decrease in the elimination of nitrogen retention.

In tubular nephritis there is a tendency toward dropsy, pallid color, and anemia. In the glomerular type the patient does not present dropsy nor become pallid or anemic. The mixed cases of nephritis cause the most trouble in diagnosis, the patient presenting both dropsy and high nitrogen retention.

While high blood pressure is a characteristic of glomerular nephritis, it does not necessarily follow that all patients with high blood pressure have glomerular nephritis; it might be a case of essential hypertension.

There are 2 forms of hypertension—benign and malignant. Benign hypertension is a condition occurring under a variety of circumstances, and is found more often in women, especially at the time of the menopause. When elevated blood pressure occurs at this time, it is usually due to a spasm of the peripheral arteries, caused by overstimulation. It is worthy of note that women with benign hypertension do not as a rule die of cardiac disease. Short men generally have hypertension, caused by overeating rather than overdrinking, although they do not develop it as rapidly as women.

Malignant hypertension occurs in childhood and youth with destruction of eyesight and cerebral symptoms. It may be the terminal event of benign hypertension and many cardiac ailments. In malignant hypertension there is a spasm of the arterioles with destruction of the retina, brain cells, and even the renal tissue itself, patients dying from failure of kidney function. Hypertension may eventually terminate in kidney or blood vessel disease. Hypertensive kidney disease generally means glomerular nephritis. In glomerular nephritis patients present a sickly pallid complexion, while in

hypertension there is a healthy appearance with no change in the blood chemistry.

Uremia is a symptom complex, referable for the most part to the central nervous system and occurring in diseases of the kidney when the functional activity of these organs is seriously impaired or resulting from complete anuria induced by ureteral obstruction or other conditions. The recognition of nephritis does not render positive the diagnosis of uremia. Patients suffering with high blood pressure due to kidney or other diseases may have convulsions, although of a less severe nature than those of a uremic origin. Patients with uremia may live for a time, but they usually die soon after its onset.

Prophylactic treatment of nephritis is very important. If nephritis complicates recurrent attacks of acute tonsillitis, tonsillectomy should be performed. Cases of acute nephritis should be treated on the basis of elimination and thus prevent edema of the brain and possible loss of eyesight.

For nephrosis, not much can be done. It is important that people with fever be given liquids for dilution and rapid elimination of toxins.

In cases of chronic glomerular nephritis with marked hypertension, do not prohibit all protein foods. A reasonable amount of albumin may be allowed, although meat, eggs, milk, or cascine should be avoided.

The treatment of nephrosis with marked dropsy is hopeless from the standpoint of medical care. Tonics and diuretics may be employed. Some cases are improved by stripping the capsule of the kidney. This is the only type of kidney disease in which operation may be performed. To raise the viscosity of the blood, injections of acacia may be given intravenously. Overfeeding is not only permissible, but often advisable. Albumin content may be very low, and transfusions of blood may be given to raise this level.

Glomerular nephritis may be treated medically by the administration of sodium chloride. As the sodium chloride rises, the urea nitrogen will drop. Iron may be prescribed to help restore the blood.

PEARL E. HACKMAN, *Reporter.*

BRADFORD

Feb. 26, 1935

The meeting was held at the Ward House, Towanda. Dinner was served.

Melvin Martin, of Dushore, read a paper on "The Complications of Measles and the Use of Convalescent Serum."

Alpheus E. Dann, of Canton, reported 2 cases of foreign body. The one was in a baby who, upon falling from its crib, fell on a roofing nail about 1½ inches long which penetrated the calvaria at the right occipitoparietal suture line. The nail was extracted with little difficulty. No immediate or remote complications developed. The other case was a foreign body in the vagina of a girl, age 9, which gave rise to a marked leukorrhoea for 4 months. The mother had taken the child to several physicians, and numerous douches and washes had been ordered. On vaginal examination Dr. Dann found a cap from a pop bottle. There was considerable ulceration of the vaginal mucosa which healed promptly upon removal followed by saline douche and application of gentian violet.

George E. Richardson, of Towanda, reported a case of undulant fever and one of multiple foci of infection with joint manifestations. The latter was of interest

because of progress noted following the discovery and removal of each focus.

WILFRED D. LANGLEY, *Reporter.*

BUCKS

June 13, 1934

The meeting was held at Grand View Hospital, Perkaskie, with President Harvey P. Feigley presiding; 29 were present, and dinner was served by the hospital nurses. Following the business meeting, A. B. Webster, of Hahnemann Medical College and Hospital, Philadelphia, delivered an address on "Fractures," illustrated with lantern slides. Dr. Webster stressed the fact that the absence of deformity, return to normal function, and the minimum amount of pain all depend on proper reduction and maintenance of reduction.

Sept. 12, 1934

A business meeting was held at the Fountain House in Doylestown. President Harvey P. Feigley was in the chair, and 19 members were present.

Oct. 10, 1934

The meeting was held at the Washington's Crossing Inn. President Harvey P. Feigley presided; 55 were present, including guests and members of the auxiliary. Wilmer Krusen, Philadelphia, delivered an address on "The Functions of a County Medical Society," and Harold A. Miller, of Harrisburg, State Chairman of Emergency Medical Relief, spoke on medical relief.

Nov. 14, 1934

The eighty-sixth annual meeting was held at the Fountain House in Doylestown, President Feigley in the chair; 53 attended including guests and members of the woman's auxiliary. Frank Lehman, chairman of the Public Relations Committee, reported that Health Day programs had been carried out in 16 of the 17 high schools of the county.

The following officers were elected: President, Linford B. Roberts, Wycombe; vice-presidents, H. Doyle Webb, Bristol, and C. A. Kressley, Sellersville; secretary-treasurer, Anthony F. Myers, Blooming Glen; assistant secretary-treasurer, Mary E. Lehman, Bristol; board of censors, William C. LeCompte, Bristol, John A. Weierbach, Quakertown, and Herbert T. Crough, Doylestown; editor, Otto H. Strouse, Perkaskie; and reporter, Mary E. Lehman, Bristol.

An address on "The Surgical Management of Hyperthyroidism," was given by Frederick A. Bothe, Philadelphia. Hyperthyroidism is increasing in frequency, especially among men. It usually occurs in the late teens to the third decade. It does occur in childhood and such cases are usually clean-cut. The preoperative and postoperative management is similar to that in adults, but the use of Lugol's solution is more delicate because the response frequently is obtained in 7 to 10 days instead of 5 to 6 weeks. Moderately severe and severe cases should be operated upon at once with removal of only one-half of the gland because of the more frequent occurrence of myxedema in children.

Hyperthyroidism in pregnancy occurs in 2 types—physiologic and pathologic. Simple enlargement of the thyroid in the second month means nothing. If accompanied by nervousness, palpitation, and tachycardia, the case should be studied. The basal metabolic rate may be plus 15 to plus 25. With small doses of Lugol's

solution and rest in bed, symptoms disappear in 7 to 10 days if it is physiologic. If it is pathologic, severe symptoms soon recur. Even in the physiologic type, symptoms frequently recur in the last 2 months but are quite amenable to medical treatment. Individuals with true hyperthyroidism are only 50 per cent as fertile as normal individuals and when they become pregnant the termination is not normal in 30 to 60 per cent of the cases. They should be managed as hyperthyroids with no pregnancy. In a group of patients treated by thyroidectomy during pregnancy, a normal termination resulted in 90 to 95 per cent of the cases. Any surgical operation not connected with the thyroid may produce a crisis and abortion is therefore contraindicated. There may be recurrence of symptoms 6 to 10 weeks after delivery, so the chance of getting the patient iodine-fast should not be taken.

Conditions to rule out in diagnosing hyperthyroidism include laryngeal disease and early tuberculosis.

Types of goiter include colloid, adenoma, adenoma with hyperthyroidism, exophthalmic, apathetic, woody, and malignant. Operate upon the colloid type for cosmetic or obstructive reasons; adenoma should be considered surgical after puberty; adenoma with hyperthyroidism and exophthalmic goiter are differentiated by the trend of the symptoms and both are surgical. In toxic adenoma the heart is most seriously involved, while in exophthalmic goiter the symptoms are more apt to be gastro-intestinal with nausea, vomiting, and diarrhea. Apathetic goiter occurs in the late fourth, fifth, and sixth decades. The patient does not look nervous but apathetic. The skin is dry and parched. However, there is tachycardia with a basal metabolic rate of plus 15 to plus 25. A conservative operation is indicated, removing one lobe, and 6 weeks later the other, because the mortality is 10 times greater than in the other types. In woody thyroid there is a general diffuse hardness of the gland. The patients develop myxedema later. The isthmus should be removed to prevent the patient from choking later but as little surgery as possible should be done. In malignancy the average life after operation is 13 months but a few live much longer. The most frequent metastases are to the jaw bone and pelvis.

Recently total thyroidectomy has been performed for repeated cardiac decompensation and for angina pectoris, in selected cases.

Preparation for thyroidectomy includes Lugol's solution, rest in bed, and sedatives. Postoperatively Fowler's and Lugol's solutions are used. Inhalation of compound tincture of benzoin decreases the tracheitis.

Complications include shock, the treatment of which is the same as in other surgical conditions. For crisis the oxygen tent is used with liver, glucose, and salt solution. Disturbance of voice, if immediate, is due to injury of the nerve; if after 24 hours, to edema and inflammatory reaction; if after 6 months, to fibrosis. Tetany follows removal of the parathyroids and is treated with calcium and parathormone. Symptoms of myxedema a few months after operation are not usually significant as the remaining tissue regenerates in 4 to 6 months. Giving thyroid in these cases may cause hyperthyroidism again. Foci of infection may aggravate hyperthyroidism but do not cause it—therefore, operate first and wait 6 months after operation to remove foci.

Surgical results are 90 to 95 per cent excellent. In the recurring group give Lugol's solution and rest and then reoperate; 80 per cent of recurrences show in the first year and only 3 or 4 per cent after 5 years.

Jan. 9, 1935

A special business meeting was held at the Fountain House in Doylestown, with President Linford B. Roberts in the chair. District Councilor Edgar S. Buyers presented some of the phases of the intended changes in the compensation laws. The society endorsed and approved the maternal survey as suggested by the State Society.

Feb. 13, 1935

A special business meeting was held at the Fountain House in Doylestown, with Otto H. Strouse presiding. Claude L. Taylor gave a report of his visit to a Philadelphia County Medical Society meeting on medical economics.

A resolution was adopted stating that it is the opinion of this society that the Workmen's Compensation Law should not discriminate against any member of the society.

Apr. 10, 1935

The meeting was held at the Fountain House in Doylestown, President Linford B. Roberts presiding. Dinner was served.

George Wilson, professor of clinical neurology at the University of Pennsylvania spoke on "Neuropsychiatry and the General Practitioner." He said that psychiatry as a specialty has been overdone. It is, however, an important division of nervous and mental diseases. Four per cent of the population will at some time have a mental upset of some kind. Eighty per cent of insane patients are cared for in public institutions, the other 20 per cent in homes and private institutions. Only 15 per cent of those admitted to state hospitals are discharged cured; another 15 to 20 per cent are sent home improved; about 40 to 45 per cent of those in private hospitals regain their health.

To be a good psychiatrist a doctor must be first, a good internist, and secondly, a good neurologist. Forty-six and five-tenths per cent of mental patients in public hospitals are there because of organic disease; 20 per cent have cerebral arteriosclerosis, and 10 per cent have general paralysis. The 53.5 per cent without organic disease are mainly manic-depressive or dementia precox cases.

Toxic psychoses offer the best prognosis. Given an even break, these patients practically always recover. A great number are postinfectious. Any acute infection is capable of producing an acute psychosis. Typhoid fever formerly was of great importance. Influenza in certain years seems to have a special tendency to involve the nervous system, producing depression. The pathology includes a mild endarteritis and involvement of the cells of the cortex. Most recover in 2 to 12 months, except those who commit suicide while depressed. Foci of infection in the teeth, tonsils, sinuses, and prostate may be the causative factors. Two series of cases of dementia precox and manic-depressive cases have been reported, with all foci removed in one series and no such treatment used in the other series. There was a higher percentage of recoveries in those not treated. These figures are probably misleading. Drugs are responsible for 8.8 per cent of psychoses, particularly sedative drugs.

The symptoms of toxic psychoses include delirium and confusional states with hallucinations of hearing and sight and loss of memory.

Postpuerperal insanities usually occur with the first baby or in women illegitimately pregnant. Those with a dementia precox reaction give a less favorable prognosis than the straight toxic cases, which are probably

caused by endocrine imbalance, the stress and strain of pregnancy, loss of blood, and mild infection.

Syphilis is always the cause of general paresis. General paresis may be difficult to distinguish from alcoholic pseudoparesis, drug pseudoparesis, brain tumor of frontal lobe, cerebral arteriosclerosis, old subdural hemorrhage, and pellagra. General paresis usually comes 5 to 15 years after the initial lesion. Delusions of grandeur or dementia are usually preceded for 1 to 4 years by some peculiar symptoms such as carelessness in personal habits or in sex, failure to meet obligations, nervousness, etc. If these cases can be diagnosed in the first year or two, 60 to 75 per cent can be cured or greatly improved by fever therapy, notably malaria. In untreated cases 95 per cent show a positive blood Wassermann reaction, 100 per cent a positive spinal fluid Wassermann reaction, and 100 per cent show a paretic colloidal gold curve. Thirty-five thousand paretics are being supported by the United States.

Cerebral arteriosclerosis must be differentiated from general paralysis of the insane, toxic psychoses, and brain tumor. It is characterized by loss of memory for recent events, untidiness, loss of orientation, amnesia, and incontinence. The patient is apt to be better in the morning and he often thinks he is someone else.

Brain tumor is indicated frequently by choked disk and projectile vomiting. Manic-depressive insanity constitutes 32 per cent of admissions to state hospitals. It is the most likely to be hereditary. The first attack frequently comes between the ages 20 and 30, and the disease is characterized by either manic or depressed states or both, alternating with periods of remission. A patient may be ill as long as a year and still recover.

Dementia precox constitutes 15 to 20 per cent of admissions. It comes on as a rule from age 19 to 27. Many more patients with dementia precox die of tuberculosis than those with other types of insanity. Daniel J. McCarthy thought that practically every patient had tuberculosis. Cases are divided into the simple, catatonic, and paranoid.

The psychoneuroses include hysteria, neurasthenia, psychasthenia, and anxiety states. The person best equipped to treat the psychoneuroses is the family doctor. The 2 essentials of treatment are that the doctor take time to listen to the patient's story and give the patient a definite routine.

At the business meeting, 5 new members were elected to membership. The Toxoid Committee reported that 2213 children were immunized against diphtheria in 1934. The Program Committee reported that Arthur C. Christie, Washington, D. C., would speak on "The Doctor and Social Insurance," at an open meeting of the society on May 8. There will be no June meeting due to the meetings of the American Medical Association in Atlantic City. The Committee on Maternal Welfare in the county wishes the required data for the period from Jan. 1, 1934, to Apr. 1, 1935, sent as soon as possible to a member of the committee.

A resolution was drafted urging our legislators to vote correctly on the pending medical legislation.

MARY E. LEHMAN, *Reporter*.

CAMBRIA

Feb. 14, 1935

The meeting was held at the Y. M. C. A., Johnstown, with 64 members and 4 guests present.

I. Newton Kugelmass, of New York City, gave an address on "The Recent Advances in the Treatment of

Nutritional Disturbances in Infancy and Childhood." He said in part:

The nutritional therapy field probably had its inception about 2 decades ago, when the minutiae in the daily diet was recognized as having substances such as vitamins, minerals, *etc.*, which could both prevent and cure so-called deficiency diseases.

A time interval is necessary in the study of treatment by diet, because tissues vary in their rapidity to show changes in the constituent; blood shows it in an hour; bones in about 3 weeks, *etc.* It is important that any diet should be complete; all essential constituents (namely, 22 amino-acids, dextrose, linol acid from fats, 10 minerals, 6 vitamins, water, and oxygen) should be included.

The next problem is how much to feed the child. The basic need for a child is 50 calories per kg.; the maximum is 200 calories per kg. Calories are given in terms of the weight the child should be. Another factor concerned is the amount of food to be given in the body build, which is cyclic in nature. Rapid periods of growth in these cycles occur during the first 2 years; again, between 6 and 8 years, and from 12 to 18 years. Rapid growth at different periods represents gains in different tissues. One time, the brain may grow most; again bone, and again fat tissue, and so different periods demand different amounts of different constituents.

Children require 3 to 5 times as much protein as adults, or about 4 grams per kg. as optimum. Visceral proteins (brain, tongue, lungs, spleen, *etc.*) are best utilized. It can generally be said of carbohydrates that we give too much, and thus displace important needed nutrients; 15 gm. per kg. is sufficient. Fats which contribute to body structures, particularly to mucous membranes, are needed in amounts of 4 gm. per kg. Diminished fat diet increases tendencies to upper respiratory infection. Minerals and vitamins are necessities, are of common knowledge, and can be obtained from an ordinary, well-balanced diet. Cod liver oil is a food requirement, not a drug.

Recent illustrative cases show that nutritional therapy is of great import in hemorrhagic diseases of the newborn; they can be corrected by discovering early disturbed nutrition in the fetus, and by finding it early in pregnancy in the mother's blood. Hemorrhagic disease and a symptom complex called erythroblastosis of the newborn, including anemias, icterus, edema, *etc.*, have been benefited by prenatal diet. These conditions indicate a protein deficiency in the diet. Proteins are very helpful to blood clotting; in fact, many surgeons insist on protein diets pre- and postoperatively.

As to the acid-base balance, the basic requirements are far above the acid constituents necessary in children's diets and yet we find many of the representative formulae (even in high-grade teaching institutions) show comparatively higher acid values. The acid-base blood picture in the newborn is very important. Babies immediately after birth manifest a picture of shock, and by combating this shock with a thick nutrient, correcting the acid-base blood picture, the blood pressure is raised, fluids are retained, and good results obtained. Undernourished patients always show signs of arrested growth, usually demonstrable in the long bones by roentgen ray. Dental caries correspond to growth cycles mentioned before, and here basic diets are indicated. Growth is more rapid and teeth improve with a raw base-forming diet. Meats, eggs, and cereals are acid-forming; milk is slightly acid; fruits and vegetables are alkaline.

In the discussion it was brought out that a child, age 6, for breakfast needs alkaline cereal (oatmeal), milk, and stewed fruit—fresh or dried. For dinner he needs raw or cooked vegetables, kidney, brain, tongue, or lung, and stewed fruits. For supper he needs vegetables, stewed fruits, and milk.

Massive amounts of orange (or any raw fruit) juice are needed for their mineral content more than their vitamin content; alkaline-forming diets are safe and lessen infections; getting children to eat what is good for them is a parent's problem and there is a big psychic factor concerned. Milk or any other form of nourishment is indicated if tolerated, regardless of fever. Cooked foods and buttermilk may be needed. Fats are contraindicated. Meat may eliminate fever. In hemophilia, it is good to give some of the mother's blood during her menstrual period in conjunction with a high-protein diet; likewise in chorea, vaccine therapy is important and improvement maintenance can be attempted by a ketogenic diet.

The fact that most of us adults grew up without all this nutritional therapy does not mean that our progeny cannot benefit by its application.

C. REGINALD DAVIS, *Reporter.*

CHESTER

Mar. 19, 1935

The meeting was held at the Methodist Church in Coatesville. The Medical Society met jointly with the Public Health and Welfare Council and the Woman's Auxiliary to the Medical Society. Luncheon was served. President Sharp of the Health and Welfare Council presided. William T. Sharpless spoke of the need of a County Health Doctor in Chester County and announced that the County Commissioners had appropriated \$5000 for the salary and expenses of such an official when, and if, appointed.

Wilmer Krusen, of Philadelphia, a director of the Public Charities Association of Pennsylvania, spoke on "Putting Relief on an Efficiency Basis." Dr. Krusen referred to the many duplications of poor boards throughout the state and urged the assembled group to support bills now before the Legislature eliminating the county poor board system. These bills received the endorsement of the entire assembly. The executive secretary of the State Public Charities Association, Mr. George R. Bedinger, reviewed the excessive waste in the handling of many relief projects. He urged the centralization of the Mother's Assistance Fund, Old-Age Pension Fund, Unemployment Relief, *etc.*, all under the same directing management.

Arthur C. Christie, of Washington, D. C., spoke on "The Place of Health Insurance in Comprehensive Plans for Medical Care." Dr. Christie reviewed the various plans now in force elsewhere, particularly in Germany and England. He showed many of the evils of these systems of medical care and very conclusively proved that health insurance both increases the incidence of sickness as well as the per capita cost. He stressed the necessity of presenting a constructive plan for medical care, and accordingly outlined in some detail the Washington Plan. This plan now in force in the City of Washington calls for medical care as well as hospital care of the indigent and those in the low-income bracket. He spoke of the central admitting bureau and how the entire health activity of the city was centered in one organization. This organization represents laymen interested in public health who are active in this work under

the leadership of the medical representation in the organization. In conclusion Dr. Christie stressed the fact that there must be whole-hearted coöperation between the medical profession and lay workers in the field of public health. He further urged a return of the high standard of medical ethics so characteristic of the profession for the past centuries, and expressed the view that this standard of ethics must be extended far beyond the medical profession and permeate every phase of health activity.

The Public Health Doctor Committee hopes in the near future to present the name of an applicant for the position of Public Health Doctor. The suggested answers of the Public Health Commission in reply to a questionnaire recently received from State Secretary of Health MacBride-Dexter were approved by the Executive Committee, which committee also recommended that the County Society approve the relicensing of the Veil Hospital in West Chester, by the State. The recommendation was approved.

JOSEPH SCATTERGOOD, JR., *Reporter.*

DELAWARE (EASTERN BRANCH)

Mar. 26, 1935

The meeting was held at the Llanerch Fire Hall.

John D. Donnelly spoke on "Practical Points in Infant Feeding." He said in part: There is no substitute for breast milk. Three important factors in infant feeding are complete physical examination, an understanding of conditions existing in the home, and the mother's ability to handle the feedings. Any kind of sugar may be used to modify cow's milk. Karo and the dextrimaltose products can be given in larger amounts than the disaccharides.

Milk, with the exception of certified milk, should be boiled for the first 18 months. Haliver oil and viosterol should be added to the diet during the second week. Orange juice and cod liver oil should be added the third week. Egg yolk should be added the second month to combat anemia. Care should be exercised to avoid adding the white of egg as this might produce an anaphylaxis.

Spoon feeding of solids, such as mashed potato and crushed vegetables, can be begun at 3 months of age.

The bottle nipple should have only one hole sufficiently large to permit the correct flow of milk, and the bottle should be held horizontal, just so the milk covers the nipple. Feed the baby for 15 minutes and then hold him upright, to assist in expelling air. After this the baby should be put to bed. The evidences of good feeding are gain in weight and the condition of the stools.

No alarm should be felt if the baby goes for 2 or 3 days without a bowel evacuation, providing the stools are not hard, as hard stools may give rise to anal ulcerations.

To combat the initial loss of weight after birth, the baby should be fed a diluted solution of Dryco. Water may suffice, as the important factor is to introduce fluids.

Eclamptic mothers should not nurse babies.

Premature infants require 60 to 90 calories per pound of body weight. A good rule to follow is to give 1½ ounces of milk per pound of body weight. Indications for artificial feeding are tuberculosis of the mother, retracted and poorly developed nipples, and diminution or absence of breast milk. (Several years ago the professor of pediatrics in an eastern medical school gave

as one of the questions in the final examination to the senior class, "Give the indications for artificial feeding." The professor was incensed because one student gave "a dead mother."—EDITOR.)

In the discussion Ernest L. Noone said that disturbances in feedings are usually caused by acute infections; R. E. Lee Gowan asked if milk should be boiled, as he was under the impression that changes occur if pasteurized milk is boiled.

THEODORE F. LIDLE, *Reporter.*

FAYETTE

Jan. 7, 1935

The meeting was held at the Uniontown Hospital, with L. Dale Johnson presiding.

The Membership Committee reported the loss of 5 members during the year through death and transfers and the gain of 5 members through transfer, reinstatement, and new membership.

The following officers were elected: President, John D. Sturgeon, Jr., Uniontown; president-elect, Lewis N. Reichard, Brownsville; first vice-president, John L. Messmore, Masontown; second vice-president, Earl C. Sherrick, Connellsville; secretary and treasurer, George H. Robinson, Uniontown; editor of *The Mirror* and assistant secretary, Charles F. Smith, Uniontown; reporter, Ralph L. Cox, Star Junction; censor for 3 years, James E. Van Gilder, Uniontown (term expires 1937); district censor, Robert H. Jeffrey, Uniontown; and member of executive committee, Arthur E. Crow, Uniontown (term expires 1937).

It was approved that *The Mirror* accept advertisements approved by the Executive Committee and editor of *The Mirror*.

Charles H. Smith read a communication from Charles H. Alspach, director of the Bureau for Homeless and Transients, to the effect that the medical care for these men must be not over \$150 per month. The physician must be employed full time and live at Deer Crossing Inn. It was approved that the Fayette County Medical Society go on record as being opposed to the employment of a physician for transients at \$150 per month and that the matter be referred to the Executive Committee of the society to notify the proper authorities. It was approved that the reference to proper authority be interpreted as including the printing of it in *The Mirror*, and that a copy should be sent to the secretary of each county society in the state with the request that it be presented to his society.

The paper of the evening was read by Chester B. Johnson, of Allison, on "Ergot in Pneumonia." He said in part:

The object of the paper is to bring before the society the fact that ergot is being given a trial in the treatment of all types of pneumonia at the Mayo Clinic. The preparation of ergot that is being used is ergotole, given in doses of 1 c.c. by mouth for an adult at 1- or 2-hour intervals, up to 24 doses, when the interval is gradually increased.

RALPH L. COX, *Reporter.*

FRANKLIN

Apr. 16, 1935

George A. Sowell, Greencastle, read a paper on "Cerebral Hydration States." He said in part:

The acute conditions in cerebral edema are fracture of the skull and acute brain injury, eclampsia, and al-

coholic wet-brain. The chronic conditions associated with cerebral edema are brain tumor, hydrocephalus, epilepsy, posttraumatic neuroses, and nephritis. The automobile has brought into medical life a large number of injuries of the skull and adnexa. About 112,000 skull fractures occur yearly, with a mortality of 25 per cent. Spinal drainage in the chronic cases results in much benefit to the patient.

The fundamental factor in treatment of brain injuries is that the brain is within a nonflexible case, expansion is impossible, and since fluids do not compress, the brain must yield when spinal fluid pressure is high. A compressed brain is anemic, and if pressure continues the patient, should he survive, will be a victim of the pitiful traumatic neuroses mentioned.

Withdrawal of 20 c.c. of spinal fluid allows that much blood to enter the brain. At least 1 c.c. of this enters the cortex, which means that 115,000 c.c. are needed daily to nourish the cortical cells.

Two important factors must be remembered in treating acute brain injury: (1) The immediate danger of death through damage to the vital centers in the base, about the third ventricle, pons, and medulla; and (2) consideration of the cerebrum and cerebellum, dealing with intelligence, memory, and judgment.

There are only 2 indications for early operation in these cases: Compound, comminuted fracture of the skull with intrusion of foreign body, bone, hair, or dirt in the brain substance; and depression fracture sufficiently large to bring pressure on vital areas.

Slight or moderate depressions are left for 10 days. Epidural or subdural hemorrhage, unless cerebral pressure cannot be controlled, is left from 5 to 14 days, but during this period dehydration is maintained continuously. Dehydration is a problem of physics. Pressure is transmitted equally to all parts of the brain, since it is largely fluid. Free fluid, which means maintained excess pressure, may be withdrawn by spinal drainage. Moreover, intravenous 50 per cent glucose or some other hypertonic solution favors the depletion of intestinal fluid. Purgation is also valuable, particularly with magnesium sulphate, together with strict limitation of fluid by mouth. Thus replacement of abstracted fluid is prevented.

Patients allowed but 20 ounces of liquids daily and a dry diet will not reproduce spinal fluid after the second day of drainage. If the patient is given 30 ounces of liquids daily, increased pressure will occur and spinal puncture will yield 30 to 60 c.c. However, we are dealing with volume relationships, not alone with pressure. A patient with high spinal pressure may show no sign of cerebral dysfunction, whereas one with low pressure may be stuporous, with many neurologic symptoms.

Headache in acute brain injury is due to increased intracranial pressure by reason of augmented spinal fluid or hyperemic brain. Vomiting seems to be nature's way to eliminate fluid, and is due to cerebral irritation. Stupor and aphasia should be differentiated. The latter is one of the most important signs to consider and is often confused with stupor. Make severe pressure on the supra-orbital nerve, and if aphasia is present the face may draw up on that side (test for facial paralysis), but the patient will make purposeful efforts with the intact hand to remove the painful pressure. If he is stuporous, his reaction may be purposeless squirming or groaning. When stupor or aphasia are deep the most responsive area to pain stimulus is on the inner, upper thigh by pinching.

To control restlessness, give sodium luminal hypo-

dermically, grains 1 to 3; and chloral and bromides by mouth or rectum in large doses. Never use morphine except as a last resort.

All reflexes may be studied to make a diagnosis of the area involved. The pulse rate is slowed by vagus irritation and increased by vagus inhibition. Rapid, thready pulse indicates that the blood volume is low or that the blood vessels are dilated; if the latter, use vasoconstrictors—pituitrin, ephedrine and ergot. If the volume is low, give transfusions of saline and glucose. The diastolic blood pressure helps to decide as to vasodilatation or the capillary circulation. Respirations more than 26 suggest cerebral irritation. Treat with oxygen and carbon dioxide inhalations. A slow respiratory rate is usually an indication of intracranial pressure increase.

If the temperature is subnormal early, it is due to shock caused by loss of fluid from skin and the hemorrhage. Heat is demanded with vasoconstrictors. A rapid rise in temperature to 107 or 108° F. indicates hemorrhage or edema in the brain substance; 103° F. need give no concern. Sponging should begin at 103° F. at half-hour intervals. Leave the skin wet and exposed to promote rapid evaporation.

Blood pressure is the best guide to this condition and its treatment, and readings should be frequent. So long as the systolic pressure is above 70 and below 200 it may be ignored. The diastolic pressure and pulse pressure are the important factors. Diastolic pressure represents the capillary bed—really it is indicative of life itself. When this pressure reaches 40 the oxygen of the red cell is no longer available in the capillaries, and anoxemia and edema follow. The cyanotic, clammy extremities shout for oxygen—not the extremities alone but the brain, heart, kidneys, and lungs are in a similar deplorable state; hence it is necessary to keep the diastolic pressure above 40. Pituitrin, strychnine, ergot, and ephedrine are indicated, plus intravenous 50 per cent glucose (50 c.c.), and if there is much bleeding add 100 c.c. saline solution. The pulse pressure usually indicates any change, and the old adage that when the pulse pressure approaches the pulse rate it is time to decompress now reads "it is time to dehydrate."

Post-shock treatment: Take temperature, pulse and respiration, and blood pressure readings every half hour, if possible. Do lumbar puncture with full drainage if fluid is bloody or under pressure. Place patient on 30 ounces of fluid intake daily, and make repeated spinal taps until fluid comes clear. Then reduce fluid intake to 16 to 20 ounces daily. If bleeding does not stop in a week's time, air may be injected into the spinal canal after tapping.

If the first tap of spinal canal shows no blood, place the patient on 16 to 20 ounces fluid intake daily. When patients are without spinal canal blood the stupor, headache, and vomiting are absent so long as proper fluid balance is maintained. The prompt recovery of such patients from pressure symptoms is responsible for the remarkable absence of posttraumatic symptoms.

With subsidence of shock, the wound is sutured after débridement. Roentgen ray should be used for medico-legal records if conditions warrant that procedure.

Study the eyes. Dilated pupils suggest the side of brain with most involvement. Give magnesium sulphate by mouth if there is need for more dehydration. Keep the patient quiet with luminal, bromides, and chloral if necessary.

Focal lesions are best dealt with from the fifth to tenth day. Strict control of fluid intake should be maintained from 7 to 10 days, kept at not more than 30 ounces

daily for a period of 3 months. No sweets or salt lessens the craving for liquids. Use vegetables low in fluid—potatoes, peas, carrots, beets, parsnips (drained), corn, and steamed rice.

District Councilor Clarence R. Phillips, Harrisburg, gave a talk on legislative affairs.

FASSETT EDWARDS, *Reporter.*

LACKAWANNA

Mar. 19, 1935

The meeting was held in the auditorium of the Chamber of Commerce; President Raymond J. Garvey presided.

Edward Weiss, associate professor of medicine, Temple University School of Medicine, gave an address on "Special Consideration of Hypertensive States." Dr. Weiss said in part:

In spite of an increasing knowledge of the hypertension problem and additional information regarding kidney disease gained by better methods of blood chemical analysis, the clinicopathologic pictures of hypertension, nephritis, and arteriosclerosis are still confused in the minds of the profession.

This discussion has to do chiefly with the individual of middle life, generally overweight, who has high blood pressure, albuminuria, and frequently edema, and who complains of dyspnea, headache and vertigo, and digestive disturbances. The clinical picture of an edematous individual with high blood pressure, sitting up in bed, puffing for breath, is a common one both in private and hospital practice, and presents the type of case that is loosely called cardiovascular-renal disease. The employment of such an inexact term connotes loose thinking on this subject and as a consequence leads to unsatisfactory treatment and bad judgment in prognosis.

Due to a better understanding of the hypertension process, to better methods of estimating kidney function, and to a general adoption of a more satisfactory classification of nephritis we are now in a position to analyze these cases adequately, giving a more accurate diagnosis based upon etiology and pathogenesis, anatomic change, and functional derangement.

Because of high blood pressure, slight albuminuria, or retinal changes discovered by an ophthalmologist (many of whom still confuse the findings in hypertension, arteriosclerosis, and nephritis although the advance in knowledge of pathologic alterations in the eye-grounds has kept pace with our general understanding of vascular disease) the individual with essential hypertension has been told too frequently in the past that he suffers from Bright's disease and as a result lives a life of invalidism in the expectation of death from uremia, which rarely occurs. We have made little advance in our understanding of the cause of essential hypertension, but we have progressed far in our knowledge of its course and its effects upon the various organs and tissues. The life history of the hypertension process might be briefly sketched as follows:

As to etiology we presume that there is much in heredity, for we are all familiar with the increased incidence of high blood pressure, apoplexy, heart failure, and kidney disease in the family histories of such patients. The stigmata indicating potential hypertensive disease are disturbances of the autonomic nervous system manifested by signs of vasomotor instability during the early years of the individual. A little later, that is, during the 20's or 30's, there occur periods of hypertension with a quick return to normal following

rest and relaxation. During middle life there is a sustained hypertension with failure to return so promptly to normal following rest. Later, during the 50's and 60's, the evil effects upon the organs, especially the arteries, heart, and brain, are manifested and, having withstood the hypertension for a period of 15 or 20 years, the individual finally succumbs to heart failure, apoplexy, or in a small percentage of cases, to renal disease.

In perhaps 10 per cent of instances the process of essential hypertension eventuates in chronic nephritis. Differentiation, which determines prognosis and treatment, is based upon the results of renal function tests. Tests for renal function aid materially in determining whether the kidneys are affected, to what degree, and what the treatment shall be; continued observation with renal function tests gives an indication as to progress. If these tests, namely, the 2-hour specific gravity tests, the excretion of phenolsulphonephthalein, and the blood urea are within normal limits and remain so, a slight albuminuria may safely be disregarded and the individual considered not from the standpoint of chronic Bright's disease, but as an instance of essential hypertension. If, however, these various tests show a disturbance of function and this disturbance of function is progressive, the probabilities are that chronic nephritis has resulted and that the end will be determined by renal failure.

Another and more frequent probability is that myocardial failure will be brought about as a result of persistent hypertension. After years of high blood pressure, the patient shows thickening of the peripheral vessels and enlargement of the left ventricle and eventually has myocardial failure. This manifests itself by dyspnea, edema, and albuminuria. Frequently, in spite of a certain degree of heart failure, the hypertension is long maintained. This is the type of case most frequently dubbed "cardiorenal." The renal element is often given credit for more mischief than it has actually done, and the proof of this becomes apparent when, after rest and digitalis, edema disappears and albuminuria clears as renal congestion is relieved.

Cardiac hypertrophy and subsequent failure with or without hypertension may have been produced from valvular defect or hyperthyroidism, and the same clinical picture results, that is, dyspnea, edema, and albuminuria and the same designation "cardiorenal" disease applied. The kidneys play a very secondary part in the process; it is entirely a question of cardiac disease as may be proved by the response to satisfactory treatment. It is apparent that a loose terminology and loose thinking on this question have resulted in bad therapeutics and incorrect prognostications.

The last variety of case which may present hypertension and albuminuria as prominent features of the clinical picture is true chronic glomerulonephritis. This type is frequently difficult to differentiate from the form of nephritis which represents progression from essential hypertension except that it is usually a disease of younger persons and the clinical picture is dominated by evidences of kidney dysfunction. It begins frequently in childhood or youth as an acute nephritis following an infection such as tonsillitis. The process may heal completely or may progress directly to chronic nephritis. On the other hand, it may clear and recur following repeated strains or infections and eventually manifest itself early in adult life by marked evidence of renal dysfunction. Hypertension and cardiac hypertrophy are present. Recurrent slight to moderate edema is common. Urinary changes (albuminuria, casts, and

red blood cells), eyeground alterations, anemia, and nitrogen retention are prominent. Progressive renal failure results in death from uremia.

Mar. 26, 1935

President Raymond J. Garvey presided. Pol N. Coryllos, professor of clinical surgery, Cornell University School of Medicine, New York City, discussed "The Rôle and Importance of Atelectasis in Pulmonary Disease." Dr. Coryllos presented a mass of experimental data, a large and interesting series of roentgenograms, and a moving picture demonstration of his experimental methods. He said in part:

There are several theories concerning the mechanism of production: That it is produced by the compression of a paralyzed diaphragm—the muscular theory; that an undetermined reflex produces dilatation of alveolar capillaries—the vasomotor theory; that it is produced by a type of angioneurotic edema; and, that it is caused by outright obstruction of the bronchus.

Obstruction of the bronchus by a foreign body or tumor is evidently the chief cause of atelectasis. During the past 10 years, the number of cases of lung tumors reported has increased 65 per cent, mainly due to the increasing awareness of atelectasis. Atelectasis, which is a symptom, should be replaced as a term by its cause, bronchial obstruction.

The defenses of the lungs against infection are very well developed, but immediately upon bronchial obstruction these defenses disappear. Recent studies have offered an answer to many of our questions in regard to pulmonary disease. Why does lobar pneumonia localize in one lobe? Why does crisis occur independently of the presence of antibodies on the fifth to eleventh day? The pneumococcus, which is present in the greater percentage of cases of lobar pneumonia, produces much mucin and fibrin and a thick, tenacious sputum. So, perhaps lobar pneumonia may be due to obstruction of the bronchus by thick sputum. Pneumonia sputum, placed in an incubator at body temperature, will hydrolyze and change to a watery material in 5 to 11 days, deep proteolysis occurring as a result of enzymes secreted by the white blood cells. There may be a high temperature with atelectasis, but if the obstruction is removed by the bronchoscope and the area aspirated, the temperature generally becomes normal.

Apr. 2, 1935

The meeting was a symposium on "Anthracosilicosis," President Raymond J. Garvey presiding. The principal address was given by Earl H. Rebhorn, of Scranton. Roentgenologic findings were presented and discussed by Byron H. Jackson. Dr. Rebhorn said in part:

As far as most of the medical men in this region are concerned, so-called "miner's asthma" is considered an ordinary condition that need cause no worry and, therefore, the profession has not troubled itself about its finer pathologic and associated clinical manifestations. Data from a survey of the condition made by the United States Public Health Service in this region in 1933 serves as a basis for our discussion.

Pneumoconiosis is a term applied to the general group of irritations of the pulmonary tract due to dust. Silicosis is that group in which the pathologic changes in the bronchi, lungs, pleura, *etc.*, are dependent upon the effect of silica. However, the silicosis seen in the hard coal industry of Eastern Pennsylvania is of necessity peculiar to itself, because nowhere else is there the physical combination of metallic substances that make

up our local product, anthracite coal. Therefore, the term anthracosilicosis is suggested, to be applied to the so-called "miner's asthma" of this, the anthracite region of America.

Pathology: Lately a host of workers have investigated the changes in the lungs as the result of inhaling dust, all agreeing that silica is the offending substance as far as disease production is concerned. Coal dust, per se, has been shown to be of no danger to the lung, because pure coal is pure carbon and carbon in all forms has been studied. Soft coal workers, charcoal burners, and inhalers of lamp soot have been observed closely and no disease has followed. The lungs of such workers have been studied after accidental death and the carbon dust has been found infiltrating the interstitial tissues, but never causing fibrous tissue production, such as is seen in silica-invaded lungs. Legge explains lack of action by coal dust as follows: "Carbon particles inhaled produced a violent reaction when brought into contact with the bronchial alveoli, which stimulated phagocytosis, taking up the dust particles in the endeavor to eliminate them." In addition, the particles of hard coal have been examined carefully and found to be rounded in contour so that the reason for mechanical irritation is minimized. This is not true of quartz particles which are sharp and irregularly edged.

Gardner states that silica acts primarily upon the lymphatics in the lungs by causing excessive proliferation of cells about the lymph channels and producing a mechanical obstruction; but in addition, it is a true poison that in low dilution causes nodular fibrosis and in high concentration, a rapid necrosis of cells. It is this latter action, its chemical action, that makes silica the disturbing agent. Since pure coal dust has no chemical action in the tissues and does not produce fibrosis by any such action, it is therefore essentially harmless. The amount of damage produced in the lungs of a coal miner is dependent upon the amount of silica contained in the dust that pervades his working place.

A study of the dust in and about coal mines made by the United States Public Health Service shows that with the exception of rock drillers, the man working in a gangway is more liable to silicosis than any other man working about the industry. The length of time of exposure definitely determines the grade of the disease that has developed. Among rock workers, silicosis signs appear at a very early date and 25 years of exposure means disease in 100 per cent. In the survey carried out by the anthracite mine surgeons, at 10 years, 2 per cent showed signs and in 20 years, 84 per cent had definite signs of the disease.

It has been conclusively shown that tuberculosis is more active in men with silicosis than in ordinary lungs. The general incidence of tuberculosis in cities is about 2 per cent, while it was found to be present and active in the silicosis group in about 10 times the rate found in the general population; but this is only true in men beyond age 35. Previous to this age, the incidence is parallel with the general incidence. Definite evidence of silicosis is found in 25 per cent of all mine workers, and 4 per cent of these men are definitely and totally disabled by the disease with the remaining 21 per cent showing varying degrees of disability.

The measure of this disability is the effect that the disease has upon the man's ability to carry on his regular work. Disability means the decreased capacity for work that the man has incurred as the result of pulmonary changes. This can be determined very readily by measuring the damage that the heart has sustained,

i. e., the ability of the heart to respond to work stimulation and to reestablish itself promptly in a rest period makes it a good heart; but if it lacks that ability it must be considered an impaired heart and the degree of this cardiac impairment measures the decreased capacity for work in the given individual. The test used to determine if physical impairment exists may be described as follows: "Each man is subjected to a uniform test in which one foot is placed upon a chair and the body is raised to an erect posture, 25 times in 30 seconds. Absence of circulatory embarrassment is indicated when the pulse rate is within normal range before exercise, and when it returns to the normal pulse range within a 2-minute rest period following the exercise. Absence of respiratory embarrassment is indicated when the respiratory rate is within normal range before exercise, and returns to the normal range following the 2-minute rest interval and with the expiratory phase not unduly prolonged (prolonged expiratory phase is found to be a common sign seen in cases of anthracosilicosis).

Symptoms: The cardinal symptom of anthracosilicosis is noted as being dyspnea with cough, associated with weakness, chest pain, gastric disturbance, and hemoptysis.

Physical Signs: Dyspnea, prolonged expiration, change in contour of the chest, decreased expansion, change in breath sounds, and impaired resonance are the signs called to our attention by the Public Health study with dyspnea being the outstanding sign. This is substantiated by our findings. In our group of 600 cases, 78 per cent presented physical signs, and 27 per cent of these had definite dyspnea. In the third stage, râles of all description may be heard over both lungs. The condition may be mistaken for chronic bronchitis or owing to the wheezing character of the breathing and the presence of sibilant or sonorous râles, asthma may be suspected.

The voice sounds will vary; they may be suppressed in some areas and exaggerated in others; if the bronchi are dilated, both the spoken and whispered voice are readily transmitted at certain points, namely, at the apex, or about the angle of the scapula.

The heart shows nothing distinctive. In the advanced stages, evidence of dilatation of the right heart may be present. Roentgenologists divide the disease into 3 stages, simply an expression of the amount of fibrosis in the lung demonstrated by the roentgenogram.

A definite diagnosis of anthracosilicosis can be made only after correlating the history, clinical examination, and roentgenologic findings. Repeated examinations are necessary. The presence or absence of tuberculosis is often an important point in diagnosis, and then the laboratory must be used as an aid in the diagnosis.

Treatment of the condition resolves itself into prevention, since it has been shown that once silica is deposited in the lungs of the individual, its action is progressive even though the individual be removed from the silica dust environment. After definite manifestation of disease, the only treatment is symptomatic; codeine for pain and cough; rest for dyspnea; and support for the heart are the only therapeutic measures. Prevention is very important and is the only answer to the problem. There should be adequate ventilation of all work places. Wet methods should be employed in drilling, loading, and processing the coal. Prevention is entirely dependent upon measures, developed at the site of the workings, directed at lowering the dust content of the inhaled air.

Apr. 9, 1935

The regular monthly business meeting was held at the Chamber of Commerce, President Raymond J. Garvey presiding. Plans were reported for the observance of Child Health Day in May which will also mark the start of a toxoid immunization campaign under the direction of the local society and with the coöperation of the public school health authorities. The credit rating and investigating bureau, planned by our committee on economics, as a check on the constantly rising percentage of free cases obtaining professional care through our charitable institutions, is now in operation, the month of April being the first trial period. Harold Gladstone Coulter was elected to membership.

Following the business meeting, Harold A. Miller, medical relief administrator at Harrisburg, addressed the society on "Relief Problems." He said in part:

We cannot offer a complete health service. In the past year, one and a quarter million dollars has been spent in this state for medical relief. The Committee on the Costs of Medical Care reported that the cost of a complete health service per year would be \$30 to \$35 per person. With 2,000,000 persons on relief, as at present, medical relief would cost the taxpayers of the state 60 to 70 million dollars yearly. But medical relief is here to stay and your children and your children's children will see it still in operation.

Funds come from the state and federal governments. When the state withheld payments for many months last year, the only funds available were those from the federal government. You cannot pay money out when there is none coming in. A certain amount of money is allotted to medical relief each month. In each month 50,000 medical orders are sent to Harrisburg from the county committees. These orders are paid by estimate and in proportion to the relief load in the county. A percentage of the total is allocated to the county and divided equally among the physicians. The actual payment per visit during the past year has averaged 80 cents. The average family received \$2.63 of the medical relief funds during the year. The apportionment of the relief dollar has been 80 cents to the doctor, 15 cents to the dentist, 4 cents to the druggist, and 1 cent to the nursing service. Checks have been sent to 9800 doctors in Pennsylvania.

FREDERIC B. DAVIES, *Reporter.*

LANCASTER

Mar. 6, 1935

The meeting was held at the Medical Club rooms, Lancaster. The scientific program was presented by W. Edward Chamberlain, Barton Young and Frank W. Konzelman, of Temple University Medical School. Six cases were presented by Dr. Young, and following each Dr. Chamberlain explained the roentgenographic diagnosis and the treatment, and Dr. Konzelman, the pathology.

CASE 1.—An elderly woman who stated that a clinical diagnosis of cancer of the breast had been made and roentgen-ray therapy had produced an apparent cure. This case is typical of the kind in which no biopsy has been made. The case is best treated by radiation because of the general condition of the elderly patient. In most patients of this type the surgeon will not obtain as many apparent cures as will the radiologist. This case received 110 r daily for 30 days, and in 2 months had regression of the tumor, with complete

disappearance of the mass in 6 months. Survey of the skeleton showed no evidence of metastases. This case illustrates the embarrassment that we all feel when we treat a patient without a tissue diagnosis.

CASE 2.—Another patient with carcinoma of the breast in whom there is a positive biopsy and the skeletal metastases regressed spontaneously following roentgen-ray therapy over the ovaries. This strengthens a former observation that the breast cancer metastases are often better after the menopause. In the late nineteenth century surgeons tried to simulate this condition by removing the ovaries in cases of breast carcinoma. Only a few patients responded, so the practice fell into disuse, but is now being revived by radiologists. Some cases will do well under this treatment.

CASE 3.—A medical student was accidentally discovered to have a large tumor of the chest wall. Surgical removal has resulted in a complete cure in spite of the fact that the tissue examination revealed highly malignant osteogenic sarcoma, primary in the rib. Roentgen-ray therapy was not given before the operation because of the possibility of producing adhesions which would have made removal of the tumor from the thoracic cavity difficult.

CASE 4.—A man with a pedunculated growth in the pharynx and larynx which nearly choked him to death and which was not completely removable by surgery. Roentgen-ray therapy has resulted in an apparently complete regression. He had 100 r daily to each side of the neck for 36 days, and has remained well for 2 years. The radiologist does not treat the operable carcinoma of the larynx as a rule, but perhaps later he will do so. At present he is asked to treat those for whom nothing else can be done. The treatment does not preclude the possibility of late recurrence in 3 or 4 years.

CASE 5.—A highly malignant carcinoma of the hypopharynx with positive biopsy, and with complete regression after roentgen-ray therapy.

CASE 6.—A young woman known to have a lung tumor for 8 years, in whom various diagnoses were considered by physicians in various parts of the United States. No one ever thought of Hodgkin's disease until it was proved, by producing marked regression under extremely small doses of roentgen ray, that this was a case of Hodgkin's disease, primary in the lung. The diagnosis was suggested when, in the general conference on the case, it was found that the patient had suffered a great deal from itching of the skin. The diagnostic value of the roentgen ray would have been lost had large doses been given in this case.

WILHELMINA SCOTT, *Reporter.*

LEBANON

Mar. 12, 1935

President W. H. Brubaker presided.

W. H. Means gave an illustrated lecture on orthopedic afflictions of the feet with special reference to flat feet.

This subject is important because flat feet seem to be increasing, due mainly to the present economic conditions; people wear shoes long after they have served their useful purpose, and buy cheap and poorly built shoes. There are too many quacks posing as foot specialists. The treatment of foot conditions actually belongs in the field of the medical practitioner.

A large percentage of the negro race has this affliction, although it is a rare condition among the Indians.

This condition has been found present in skeletons of ancient times.

The anatomy of the foot with reference to the osteology was illustrated with a skeleton. The deformity is essentially a displacement of the astragalus on the bones of the tarsus with relaxation of the plantar ligaments in cases in which the longitudinal arch is involved.

In an involvement of the metatarsal arch formed by the distal heads of the metatarsal bones, there also is a relaxation of the ligaments. The normal position of the feet in walking is with the toes turned slightly inward toward the midline of the body, the foot inverted. In flat feet the toes are turned outward, the foot everted.

Symptoms such as backache and undue fatigue are often due to flat feet.

Heel and toe exercises performed daily in children in whom the condition is sufficiently mild are oftentimes curative.

The proper type of shoe has a broad toe, proper fitting so as to be comfortable, and broad low heels. The inner border of the heel and sole should be about one quarter of an inch thicker than the outer.

Strapping the feet weekly for several months often is a valuable aid. Here again the foot is slightly inverted.

With reference to arch supports, the felt supporter is to be preferred to the soft rubber ones, because eventually they are more comfortable and retain their shape longer.

The removable supporter is not well adapted for children, as they may wear them in the wrong shoes. In a case cited, the child complained of extreme pain in her feet due to the fact that she had the arches in the wrong shoes. Built-in arches are desirable if they are made to order.

EDWARD L. JONES, *Reporter.*

LEHIGH

Feb. 12, 1935

The meeting was held at the Nurses College, Allentown Hospital, Allentown; Robert L. Schaeffer presided. Anthony Bassler, New York City, professor and director of the Department of Gastro-Enterology, New York Polyclinic Medical School and Hospital, read a paper on "Colitis from the General Practitioner's Standpoint." Raymond J. Connors spoke on "Pruritus Ani."

Dr. Bassler said in part:

Diagnoses like "unstable," "spastic," and "dysfunction of the colon" are due to lack of knowledge of pathology. While the reconstructive power of the colon is great, any one of a number of factors continually irritating the colon causes a reactionary pathology which can be demonstrated in pin-point ulcerations and erosions, cytologic changes in any of the cells of the walls; there is cell infiltration, lysis of the follicular glands, hypertrophy of the lymph follicles, pigmentation of the mucosa, deposits of fibrous tissue mostly around the arterioles, obliteration of veins, dilatation of arteries, denudation of capillaries, thickening of the serosa, etc. While these pathologies are due to some irritative factor they may come from bands, kinks, angulations, etc. The factors that are important are the intestinal toxemias represented in the indolic, saccharobutyric, and mixed forms; various specific infections represented in chronic carriers of *Bacillus dysenteriae*, *metadysenteriae*, *paradysenteriae*, *coli*, typhosis, streptococci, staphylococci, and anaerobes, neurologic,

especially in the nonadjusted types of individuals; parasitic, in which the chronic carriers of ameba *Trichomonas*, *Giardia*, and round worms are the most important; allergic factors; and finally, the factors found in ulcerative colitis—bacterial, deficiency, and hereditary.

While accessory factors such as chronic appendicitis, gallbladder and pelvic diseases with rectal states, and the types of secondary colitis which terminate lethal diseases are important, these factors are not as frequent as those aforementioned. In the more common forms of chronic colitis all the pathologies represented in any book on cellular pathology may be found and these conditions may exist without many, if any, local or general symptoms. Often a habitual constipation case presents extensive pathology in the colon not suspected or perhaps ever known. It has been suggested that the diagnosis of colitis be reserved for the ulcerative form and that all the other types are functional. This is an error due to limitation of knowledge of pathology and lack of proper examinations.

Generally throughout chronic colitis local symptoms in the abdomen, mainly those of distress and pain, the long-continued history, the careful roentgen-ray examination not only for spasms and atonies but mainly in rugal studies and the laboratory are essential for diagnosis. In the toxic form of colitis the original classifications and examinations of stools suffice. The indolic form requires high vegetable and farm diets, use of small doses of calomel, betanaphthol benzoate, bismuth salicylate, and perhaps salol. Constipation additions to the diet are usually required but medicinal measures to move the bowels usually increase the pathology. In the saccharobutyric type, high protein diets are required in which alkalies and rectal instillations of oxygen are worth while. Infective colitis due to specific types of organisms calls for technical examination of stools and the use of various vaccines and antigens, and usually more or less of a bland type of diet and the additions of vitamins, mainly B2, G, and D. Dry colitis is largely a stercoral affair due to saprophytes which thin out the mucosa. In this form the cure is dependent upon the results obtained by anticonstipation diets, and these cases are the most prompt in cure. In the mucous forms, the sympathetic nervous system together with endocrine significances are important. They often require rest treatment, various types of diets, and social and domestic control together with endocrines, different kinds of tonics, and perhaps modest doses of senna or cascara.

There is a close association between the brain and the colon and this explains neurologic colitis. The trend of life to-day is much too fast for these people and the profession is not devoting enough interest and time to the treatment of them. It is in this type that mental and social hygienic methods figure prominently to which may be added sex problems and others. Common sense, reasonable advice, the philosophy of daily life, and lessons from the Bible often serve to good purpose. These cases require tonics, the use of various local treatments in which *Hydrastis* and *ichthyol* are beneficial.

While a good many men in medicine believe that parasites in the intestinal canal can do no harm, they do bring on pathologies of chronic types and often render the individual susceptible to other infections. The chronic ameba carrier must be diagnosed and treated in the specific ways. Instances of *Trichomonas* and *Giardia* require transduodenal lavages with hypertonic solutions. The round worms can be handled in the well-known ways.

Allergic colitis which is mostly a hereditary affair is controlled in 90 per cent of the instances, so far as foods are concerned, by the elimination of milk, wheat, and eggs. The skin testings are of value only in half of the instances. There are no allergies in bacterial infections. Here we deal with toxic effects and immunities, but never true allergies.

In ulcerative colitis, the *Bacillus dysenteriae* is found in about 17 per cent of the instances, and streptococci are found in 100 per cent. The treatment here is the use of any diet that would be ample and some are best treated by bland forms and others by roughage diets. Every case of ulcerative colitis has a chronic stasis and not a few cures are brought about by anticonstipation methods. The best results have been brought about by multiple types of vaccines in which the streptococcus figures predominantly. When surgery is performed it should be done on a step-up plan and always should be conservative. Beginning with the procedure of cecostomy, irrigations and various types of solutions should be engaged in. If the clinical course of the findings by proctoscope do not show distinct benefits, an ileostomy may be in order, this finally to be finished off with an ileac implantation. It must, however, be remembered that this is a disease of the young person and that tincture of time and essence of patience clears up the vast majority of them. When in a late case polyposis exists, colectomy is required.

Dr. Bassler finished with a plea for the more general use of the term "chronic colitis" rather than the erroneous terms that are to-day employed.

Mar. 12, 1935

The meeting was held at the Sacred Heart Hospital; Robert L. Schaeffer presided. John R. Moore, professor of orthopedics, Temple University Medical School, Philadelphia, read a paper on "Fractures of the Upper End of the Femur."

The paper illustrated the characteristic location of the fractures, the method of reduction, and the prognosis. Special emphasis was placed upon the distinction between neck fractures and the remaining fracture types, with particular reference to union. It was strongly emphasized that the intertrochanteric, subtrochanteric, and basal fractures, give equally as severe disability as the neck fractures, if improperly treated. The diagnosis, ease of reduction, and excellent progress of this particular group were particularly stressed. Every effort should be made to eliminate the delay in reduction and particularly the fears of nonunion based primarily on age, location of the fracture, etc. It was pointed out that fracture first noted for its nonunion had gained its reputation largely because of the difficulty of reduction and the fear of mortality rate.

VAUGHAN SPRENKEL, *Reporter*.

LUZERNE

Mar. 20, 1935

The meeting was held in the Medical Building, Wilkes-Barre. President Joseph P. Dougherty presided.

Ethan Flagg Butler, of Elmira, N. Y., discussed "The Surgical Treatment of Nontuberculous Suppuration of the Lung." About 30 per cent of the cases will undergo spontaneous recovery without any interference; 30 per cent will require bronchoscopic treatment and will benefit by it; this leaves 40 per cent in the surgical class. Acute abscess practically never requires emergency treatment.

The failure to secure favorable results under bronchoscopic treatment will discourage the patient. However, it is well to give enough time to its trial because the convalescence from surgical interference can well be as tedious as prolonged bronchoscopic treatment. Where anything dramatic is obtained by bronchoscopy, it will be obtained early.

Bronchoscopy serves its purpose in diagnosis. Malignancy cannot be diagnosed by physical examination. It will be missed by the roentgen ray. Ten to 15 per cent of cases of lung suppuration are said to be bronchiogenic carcinoma.

No one can say how many bronchoscopic treatments constitute a fair trial of treatment. Waiting allows the patient in certain types of infection to build up an immunity. In the necrotic abscess with foul odor with the organisms living under anaerobic conditions, it often becomes necessary to interfere early surgically.

When surgery is in order, there are a vast number of procedures. Two objectives to be sought are adequate surgical drainage and complete excision of all infected tissue. This latter can be obtained only if the suppurative process is limited to a lobe or side.

The simple surgical treatment is drainage by rib resection. In a series of cases in which this was done, success occurred in 35 per cent of the cases; about 25 per cent died; 38.7 per cent required further operation because in more than half of them the simple drainage did not meet the pathologic condition present. An additional group required intervention because of persistent bronchial fistulae. In a small number there were other foci within the same side of the chest which might have been reached through wider approach.

Radical drainage consists of excision of all infected tissue after removing as many as 6 ribs. Sixty per cent of these attain the desired result without anything else; 15 per cent require further intervention, and 25 per cent die.

In one series no bronchial fistula persisted after replacing the flaps. Those that needed further work really needed lobectomy from the beginning. Secondary radical drainage is of no avail.

These figures do not mean that you can embark on radical ventures at the beginning. The older the patient the better it is to use the minimal procedure that offers any relief. The mortality goes up with radical procedure. Dr. Butler's mortality has not been among children but always among adults. Where there is any doubt in the surgeon's mind, the first attack should be in the nature of simple drainage. The patient, the family, and the surgeon should make a mental reservation that 40 per cent of these cases will require further treatment later. Even then you are dealing with a less septic patient.

Why allow small fistulae to persist? They are not altogether innocuous. Hemorrhage has been known to develop. About 90 per cent of the success depends on careful day-by-day attention at the bedside following operation.

In discussion H. B. Gibby, Wilkes-Barre, said that the general surgeon and general practitioner very frequently fail to recognize some of these chest conditions. When recognized, all surgeons are not skilled enough to carry out the radical surgery that may be necessary. Teamwork is necessary. The anesthetist must be informed every minute of the patient's condition and must keep the fluids sucked out of the airway. These procedures are necessarily prolonged and the anesthetist must be capable of gauging the patient's condition. He asked Dr. Butler how to close bronchial fistulae. Dr.

Butler replied that there are 3 ways: (1) If they are small they will obliterate themselves; (2) freeing the lung from adhesions binding the parietal and visceral pleurae together allows a certain amount of relaxation and that may obliterate the fistulae; (3) if there is a narrow fistulous tract the epithelial lining should be cut out and a small piece of muscle flap dissected and transplanted into the lumen. The fistulae from lobectomy are so deep in the chest that they have a natural method of sealing themselves off spontaneously.

Apr. 3, 1935

President Joseph Dougherty presided at the meeting held in the Medical Building, Wilkes-Barre. Dr. Thaddeus L. Montgomery, Philadelphia, read a paper on "The Significance of Hemorrhage Complicating Pregnancy."

He said in part: The subject is a large and an important one. Hemorrhages can be divided into those of the early months which are caused by neoplasms or erosions, abortions and miscarriages, hydatidiform mole, and chorionepithelioma; and of the latter part of pregnancy, as from placenta praevia and premature separation of the placenta.

Of the first group, neoplasms with varicosities of the vagina seldom cause great distress or severe hemorrhages. Erosions of the cervix may cause serious bleeding. They may be seen in patients with a 3-months' pregnancy. There usually is no pain and the bleeding clears up with rest. The cervix is not obliterated or dilated and examination with a speculum shows an angulation of the cervix and capillary bleeding from an area. It may become severe enough to cause signs of an abortion. The treatment consists of exposure of the cervix and cauterization of it lightly.

Abortion is characterized by bleeding and pain in early pregnancy. It has a far higher morbidity and mortality than a full-term birth. With threatened abortion there may be much bleeding, which often lessens and the patient goes on to full-time delivery. An examination carefully done must always be made to ascertain the correct condition. In hemorrhage, put the patient to bed, elevate the foot of the bed, give sedatives, and avoid vaginal packing as it will surely cause abortion. Are there any means of avoiding habitual abortions? A patient had 3 abortions at the fourth month of pregnancy. She had marked evidence of pituitary disturbance. The treatment in these cases consists of thyroid extract, grains $\frac{1}{4}$, t.i.d., cod liver oil, rest in bed, and calcium in some form.

When does an abortion become inevitable? When the bleeding and pain increase; with a discharge of shreds; and with a change in the contour of the cervix, which becomes dilated and obliterated. A pack is placed against the cervix and removed in 24 hours. If the uterus does not expel the contents and more bleeding occurs, a dilatation and curettage must be done. It must be performed under aseptic conditions and preferably in a hospital.

Missed abortions are those cases in which an embryo dies, there is cramplike pain occasionally in the lower abdomen, the fundus is soft, there is a gaping cervix, and a dark-colored flow of blood. The Aschheim-Zondek or Friedman's test is important here. If either is positive it means the embryo is alive or attached to the uterus, and if negative it is dead. If there is a positive reaction repeat it every 10 days until there is a negative test if a dead embryo is suspected.

In ectopic pregnancies there are sharp pains in the side, the cervix is soft, bleeding is slight, and there is

a mass unilaterally. A careful pelvic examination is necessary to rule out other conditions. The biologic tests mentioned may be helpful. The treatment consists of early surgery, blood transfusion, or intravenous injection of normal saline—one or both.

Hydatidiform mole is not rare. Many of these are found in abortions. They are grapelike bodies attached to the placenta. The treatment is to pack the vagina to arrest the bleeding. Dilatation and curettage should be performed in the hospital with packing for 24 hours. After leaving the hospital the patient should return at monthly intervals for an examination and the pregnancy test for one year. Chorionepithelioma is a rare condition and is very malignant.

The second group of hemorrhages is that of the late pregnancies. Placenta praevia, one of the conditions in which bleeding occurs, is a treacherous condition. The symptoms may be mild or prolonged. One may see a darkened area from which the bleeding comes or see a rent in the sac near the placenta. If the subacute type gets worse, cesarean section must be done. In serious cases there is a gush of blood. The symptoms are painless bleeding but often some distress. Some may have definite lower abdominal pain due to the passage of small clots. Often labor pains are thus begun. Frequently a breech or lateral position is found because the child is hindered from settling in the pelvis. Avoid making a vaginal examination as it will cause more bleeding and introduce infection. Roentgen ray helps in determining the position of the placenta.

Give sedatives, remove to the hospital, empty the uterus vaginally if possible and, if not, a cesarean section must be done. Vaginal delivery may be done if the bleeding is mild, if the pains are active, and if there has been early rupture of the membranes.

The causative factors of premature separation of the placenta are: (1) Trauma from a fall or blow, in 5 to 10 per cent of the cases; (2) toxemia of pregnancy. The symptoms depend upon the extent and rapidity of the separation and bleeding. Abdominal examination shows firmness of the uterus. There is moderate enlargement of the uterus as the blood accumulates and evidence of shock. If the cervix is closed empty the uterus by cesarean section, and if pains are strong and the cervix is dilating vaginal delivery is preferable. The blood loss must be replaced.

The discussion was opened by Elmer L. Meyers, Wilkes-Barre, who said it is much better to have a bleeding patient in the hospital. Joseph L. Kocyan, Wilkes-Barre, said that the mortality remains much the same as in the past in the United States. Morbidity has decreased in the past 30 years due to education and proper prenatal care. The most recent thing is to study the blood picture. There is often a secondary anemia and hemorrhage in these cases which is alarming. A hemoglobin estimate should be done before and after the delivery and treatment prescribed accordingly.

MARJORIE E. REED, *Reporter.*

LUZERNE (HAZLETON BRANCH)

Mar. 27, 1935

The members were the guests of Robert A. Gaughan at the Hazleton State Hospital. George P. Muller, professor of clinical surgery in the Graduate School of the University of Pennsylvania, gave an address on "The Noncalculous Gallbladder." He said in part:

Individuals are frequently seen having indigestion of the flatulent type, accompanied sometimes by soreness

in the midepigastrium, or slightly to the right. The soreness or pain is not marked, and there is no true colic. In a series of cases, the average will show that meals, and even fatty foods, have nothing to do with the onset of symptoms.

The pain in these noncalculous cases is not severe and rarely if ever requires morphine. Although the diagnosis is made in all such cases, not all are cured by cholecystectomy. Thus there is a problem in refinement of diagnosis, since we wish to segregate those who will be cured by operation from those who may not, and since we do not wish to subject all such patients to an operation in which there is some risk.

All are familiar with cases in which symptoms are temporarily relieved by the removal of a gallbladder which did not seem to have anything wrong with it. This is explained by considering the law of the gallbladder, namely, that as the gallbladder contracts, the sphincter of Oddi relaxes. This relationship may have been pathologic to begin with, i.e., the sphincter did not open when the gallbladder contracted, and pain resulted. Removal of the gallbladder is always followed by temporary loss of tone of the sphincter of Oddi, and symptoms, therefore, are relieved for awhile in the cases mentioned, for this reason. Later, tone is regained, even though the gallbladder be out, and all the trouble recurs.

The following types of noncalculous gallbladder are found: Normal; strawberry gallbladder or cholesterosis, in which nothing really is the matter; gallbladder with excessive mucous secretion blocking the ducts; and gallbladder with thick fibrosis resulting from infection. These last also produce thick secretions blocking the ducts. If all cases were operated upon many recurrences would follow, only 45 per cent of cures being obtained. If cases are selected and studied, however, 85 per cent of cures can be had of those operated upon. Aids in the refinements of diagnosis and study include the Graham-Cole roentgen-ray examination, which is invaluable. Compared to history, this test is of equal, rather than of secondary, importance.

Duodenal drainage is another aid to diagnosis, although it is of more importance in the presence of stones than in this type of disease. Icterus index is valuable especially when its figures indicate latent jaundice and early pathology. Gastro-intestinal roentgen-ray studies may aid in difficult cases by showing pressure defects of the duodenal cap caused by a large gallbladder, or distortions caused by adhesions. It also rules out the chances of mistaking the diagnosis for peptic ulcer. Finally, if the case is very difficult, gastric analysis may be done; acidity is high in ulcer, and low or normal in gallbladder disease.

Differential diagnosis also must include tabetic crises, intercostal neuralgia, chronic appendicitis, kidney stone, spastic colitis, and chronic gastritis of the functional type (flatulent indigestion).

Treatment includes removal of focal infections, rest, avoidance of nervous strain, and regulation of activity and weight. The diet should be low in fat and protein, but high in carbohydrate out of respect for liver damage which may often be present. Protein should be used as in a diabetic. While fat is restricted generally, some cases do well with fats added, to empty the gallbladder frequently, provided colic is not brought on by so doing. If symptoms persist after this course of management, operation may then be carried out, provided it is determined first whether the gallbladder is functioning, adherent, or infected, by the diagnostic aids previously enumerated. Cholecystectomy is the cure

for badly diseased gallbladders. The operation is best done slowly, and with care to make little flaps to appose each other and prevent adhesions in the liver bed. Special care is needed if drainage be used, since adhesions may result and cause postoperative trouble just as bad or worse than the symptoms before operation.

In discussion John M. Dyson stated he had treated some 10 cases of noncalculous gallbladder disease with courses of bile salts alternating with half doses of "Tetraido" (Davies, Rose & Co. gallbladder dye). Definite relief of symptoms occurred in over 50 per cent of these cases, although the period of observation was not always very long. David A. Johnston asked how cases are treated having recurrence of symptoms after operation. George B. Dornblaser approved Dr. Muller's views on duodenal drainage. Benjamin Parish, Jr., stated that calomel is frequently used in gallbladder cases in the Hazleton State Hospital, with doubtful results. Dr. Muller's opinion was requested. John R. Dyson asked the speaker's views regarding caroid and bile salts, and all the other drugs recommended by the detail men for the treatment of gallbladder disease. Louis A. Dessen described cases in which hepatitis is present, as determined by poor liver function in excreting the gallbladder dye. He asked regarding the incidence of this condition.

In conclusion Dr. Muller stated that bile salts increase the fluidity of bile and supply bile salts needed in splitting fats in the intestines, thus aiding digestion. If the use of dye and bile salts gets 50 per cent results it must be good, but he knows little of this treatment. Postoperative treatment of attacks includes diet, deep breathing exercises, and medical diathermy. Adhesions, stones, or obstruction may occur, in which case reoperation is required. Physiologists state that calomel has little or no action on the biliary tract. Magnesium sulphate is the best cholagogue. The reference to the duodenal tube was meant to imply that it is of value for diagnosis and for putting Epsom salts into the duodenum. Dr. Muller did not have figures with him regarding hepatitis but was of the impression that slight hepatitis is often present early in the course of gallbladder disease, but disappears later, especially if operation is done.

JOHN M. DYSON, *Reporter*.

LYCOMING

Feb. 8, 1935

The meeting was held at Williamsport, Herbert P. Haskin in the chair.

Nathaniel W. Winkelman, professor of neurology, Temple University Medical School, addressed the society on "Neurology as It Applies to the General Practitioner."

Every general practitioner should have a systematic outline of neurologic study which would bring to light nearly all of the important neurologic conditions, leaving the more minute and borderline cases to the neurologist. There are times when just looking at the patient will give the diagnosis, as in a case of acromegaly. An important quality is to recognize the things one sees. For instance, in studying the pupils note whether they are round and equal, and how they respond to light. Gait, speech, and general make-up will meet the eye at once; the amount of surface fat, its distribution, and the distribution of hair on the body, *etc.*, may reveal important information. A cursory examination of the cranial nerves is usually all that is required, a detailed study being necessary only when something special is

indicated. Ocular movements are always important. Gait, speech, eyes, and cranial nerve studies often will localize cerebral lesions.

He regards Hoffmann's sign as very important evidence of pyramidal tract involvement. It is really Babinski's sign of the upper limb. Babinski's sign of the lower extremities is equally important. A sign to which Winkelman has called attention in lateral tract cases is a slight degree of hypertension of the great toe on the side affected. This sign will be present very early in some of the cases. Tone of the muscle, an important factor, is noticed by palpation of the muscles. The degree of flabbiness will show the side affected and also the upper level of the lesion. Recently Pottenger has pointed out that there is a change in muscle tone of the muscles of the chest in cases of pulmonary tuberculosis on the side affected. In cases with a lesion of the knee-joint there may be hypertonicity of the muscles and tendons about the joint but later there may be atrophy.

The neurologic conditions of chief interest are the peripheral nerves and cord, brain and cranial nerves. The term neuritis has been used too broadly and should be confined to inflammatory conditions of peripheral nerves. It can be local or general.

Causes of Local Neuritis: There may be conditions predisposing to inflammation or degeneration of a peripheral nerve, as in sciatica. The sciatic nerve is usually an innocent bystander in the course of an inflammation of the sacro-iliac joint. Treatment must be directed to the latter. Pain and weakness are always characteristic of any peripheral nerve lesion. The change in reflexes only occurs when the condition is severe and late in the process. In the later stages of neuritis there may be a decrease in sensation, accompanied by weakness. Etiologically, neuritis may be caused by focal infection, trauma, pressure, and general toxic processes. Thus alcohol, lead, arsenic, diphtheria, *etc.*, or any other endogenous or exogenous poison may cause it. In diphtheria paralysis of the uvula may be the clue. In alcohol poisoning there is always pain on pressure. In lead poisoning there frequently is weakness of the extensor muscle.

Avitaminose, a food deficiency disorder which is receiving attention, may cause neuritic manifestations. In Boston they have been able to reproduce many of these lesions by the withdrawal of certain foods. It is now believed in many mental depression states that lack of vitamin B is an important factor.

Spinal Cord Lesions: One of the first signs in this condition is difficulty in walking, which may be due to any one of 2 or 3 dozen other conditions, more especially to spinal cord tumor, pernicious anemia, multiple sclerosis, or tabes dorsalis. Neurologists are able at times to make a diagnosis of pernicious anemia before the blood picture is positive. Other factors, such as absence of free hydrochloric acid in the stomach, are extremely important. Numb fingers, with a sensation of pins and needles and with the same sensation in the toes; defects in walking with a positive Romberg sign, defects of knee reflexes, in which some may be increased while others are decreased or absent, and defects in the muscle sense per tuning fork are other neurologic signs. The sense of vibration is disturbed. A patient with pernicious anemia may not become fatigued on train riding while a normal person is so affected.

A diagnosis of pernicious anemia should not be made without an absence of free hydrochloric acid; 4 per cent of normal individuals do not have free hydrochloric acid in their gastric juice and Dr. Winkelman believes

it is among these that pernicious anemia develops. The disease might possibly be prevented by large quantities of dilute hydrochloric acid by mouth following the discovery of its absence.

Multiple Sclerosis: A patient with the above-mentioned symptoms suggestive of pernicious anemia but with free hydrochloric acid in the stomach probably has multiple sclerosis. The latter disease is much more common in Continental Europe and rare in America. There is a tendency to consider multiple sclerosis to be due to some sort of avitaminose and yet it occurs in countries where vitamin B is taken freely, by imbibing beer.

Blood Vessel Disease of the Spinal Cord: While this condition is very common in the brain it is extremely rare in the spinal cord. This is explained on the basis of the mechanics of the blood supply to the cord. The arteries enter the cord at right angles whereas in the brain they enter directly. Thus the continual pounding of the heart is spent directly in the brain substance but in the cord it is spent at the angulation of the vessels.

Blood Vessel Disease of the Brain: This condition is a natural concomitant of advanced years. Vascular lesions of the brain are the most common lesions of the central nervous system. Hemorrhage of the brain is quite infrequent as compared with thrombosis. This statement is based on necropsy findings. Cerebral hemorrhage is practically always fatal. In 10,000 necropsies at the Philadelphia General Hospital only 10 cases of hemorrhage were found. Patients with thrombosis and emboli have a chance to recover but with disability. In case of a stroke accompanied by unconsciousness and paralysis it is practically impossible to tell at first whether it is a hemorrhage or thrombosis. If it can be said definitely that it is a hemorrhage, the patient will die. Sudden death does not follow hemorrhage, even though the hemorrhage may be as large as an orange. The patient may live days. If blood breaks through into the ventricle, death always follows. In these cases blood will be found in the spinal fluid. Spinal puncture may prolong life for some time.

Spontaneous subarachnoid hemorrhage will occur suddenly even in younger subjects and show blood in the spinal fluid, along with stiff neck and headache resembling meningitis. Blood in the spinal fluid differentiates it from meningitis. Some of these patients recover. In such a case pregnancy and labor are apt to bring on a recurrence. Cesarean section may obviate this. The condition is due to ruptured brain aneurysm, and is practically never syphilitic.

Headache: This symptom is neurologically an important symptom but it has so many causes as to include almost anything. Neurologically there are several important factors. The causes may be (1) *general*—toxic, vascular, or psychogenic conditions, constipation, uremia, or alcoholism; (2) *local*—within the skull, such as sinusitis or other local abnormality. Always eliminate local causes before giving a neurologic study. A very severe headache can presage an oncoming hemorrhage or some other cerebral catastrophe such as thrombosis. It may introduce meningitis or brain tumor. Migraine is a periodic headache and not necessarily hemicrania. It may involve the whole head. The scintillating scotomata, weakness, nausea, *etc.*, associated with the menstrual cycle in women would suggest migraine. Many of these cases are not solvable neurologically. At times it is found to be due to an allergic reaction. Many neurologic conditions are now so considered, such as certain cases of epilepsy, certain so-called neurogenic and dermatolog-

ic conditions, *etc.* Thus a case of convulsive seizure along with pruritis ani may be relieved by foreign non-specific protein. There is no solution for all cases of epilepsy. Headache may be due to brain tumor but there are many other factors.

Meningitis: Three types were mentioned: (1) The so-called serous, reactive, or sympathetic meningitis resulting from local sinus infection; (2) occurring during the course of an acute infectious disease; (3) focal causes in the brain. When due to local sinus infection the spinal fluid may show an increased number of cells but no organisms. Relief follows correction of the sinus or mastoid infection. If organisms are found in the spinal fluid along with signs of meningitis, operation will be of no avail. Mere spinal drainage does not help and this is particularly true of streptococcus or pneumococcus infection. Cases occurring during the course of an acute infectious disease may develop into the so-called hemorrhagic encephalitis, or encephalomyelitis disseminata. In the former, a child may be taken with a supposed influenzal infection, for instance. He develops a temperature of 105° F., and has convulsions for several hours, followed by hemiplegia and bloody spinal fluid. Later on he may develop jacksonian epilepsy. This is due to massive brain hemorrhage and the patient may recover. In the latter condition there may be disturbances in gait or muscle movements secondary to an acute infectious disease. It may follow also the use of vaccines and sera. Recovery is usually the rule but it may require 6 or 8 months and occasionally there may be certain residuals.

In discussion Frederic C. Lechner stated that there is probably no group of cases treated more poorly by the general practitioner than the neurologic cases. Certainly they are not as well handled as the cardiac, cardiorenal, and tuberculous cases, *etc.* There have been certain advances, however, along these lines. Endocrinology has helped in regard to cretinism. There have been some advances in the muscular dystrophies and myasthenia gravis; ephedrine and later on ephedrine and glycooll with the addition of a diet high in gelatine have brought a degree of improvement. The speaker reported a family in which there are 3 boys with pseudohypertrophic muscular dystrophy and showed slides.

Charles Youngman, Jr., asked the relationship of high or low blood pressure to cerebral hemorrhage or thrombosis. Dr. Winkelman said that there is no relationship, that the one with high pressure is more likely to have the thrombosis than the hemorrhage and the low pressure case the same. Dr. Winkelman remarked in regard to pernicious anemia that nowadays we have liver to offer, also dilute hydrochloric acid in large doses of 1 to 2 drams, but in spinal cord disease, if seen late, we cannot do more than keep the patient alive. In cases of muscular dystrophy and myasthenia gravis he believes in glycooll and gelatine as well as meat juice, but has little faith in ephedrine. It must be remembered that the latter condition may stage a spontaneous remission but the former will not.

LARUE M. HOFFMAN, *Reporter.*

McKEAN

Mar. 19, 1935

The meeting was held at the Emery Hotel, Bradford. This was the annual joint dinner meeting of the County Medical Society and the McKean County Bar Association.

The guest of honor was Mr. Andrew T. Park, of Pittsburgh, district attorney of Allegheny County, who discussed the medical aspect in the apprehension, trial, and conviction of criminals, illustrated with several interesting case histories.

There was an open forum in which a discussion of drunken drivers and their diagnosis was a major feature.

T. S. FANNIN, JR., *Reporter*.

MONTGOMERY

Apr. 3, 1935

The meeting was held at the Plymouth Country Club, Norristown; the attendance was 60 members and 5 visitors. Endorsement was given to the Child Guidance Clinic, not for treatment but for prophylaxis, in psychiatric cases.

"The Thyroid Gland," was discussed by James A. Lehman, Philadelphia.

The following classification was given:

Simple goiter (a) diffuse, (b) adenomatous; hyperthyroidism (a) diffuse, (b) adenomatous; hypothyroidism; thyroiditis; and malignancy.

Simple Goiter. The etiology is iodine deficiency. Treatment is largely a matter of prevention. The adenomata are involutional bodies left by recessions of activity in the gland. Surgery should be employed only for cosmetic effect or to relieve pressure.

Hyperthyroidism causes exaltation of all the functions of the body. The etiology is unknown. Diagnosis is to be distinguished from neurocirculatory asthenia, neuroses of the menopause, chronic infections, and central nervous system disorders. The main symptoms occur as follows: Tachycardia, 100 per cent; nervousness, 93 per cent; thyroid enlargement, 93 per cent; exophthalmos, 83 per cent; bruit, 70 per cent; hyperhidrosis, 67 per cent; tremor, and loss of weight. Neurocirculatory asthenia is characterized by clammy hands. Crisis may be stimulated by pain, emotion, infections, asphyxia, hemorrhage, inhalation anesthesia, and adrenalin. The treatment is largely surgical.

Hypothyroidism before puberty constitutes cretinism; in adults, myxedema. Thyroid extract should be prescribed usually followed by disappearance of symptoms.

Thyroiditis: (a) Acute simple; (b) acute suppurative; (c) tuberculous; (d) Reidel's struma; and (e) struma lymphomatosa. The etiology of (a), (b), (c) is due to infection from a distant focus or is spread from contiguous structures. Reidel's struma and struma lymphomatosa are often mistaken for malignancy.

Malignant Goiter: The classification of Graham is the most satisfactory. Simple adenoma is precancerous in 2 per cent of cases. Surgery combined with roentgen ray gives 25 per cent of 5-year cures.

In discussion George W. Miller stated that the course of the inferior thyroid artery is usually incorrectly described in books. It makes an upward loop before entering the gland. WALLACE W. DILL, *Reporter*.

NORTHAMPTON

Mar. 15, 1935

The meeting was held at St. Luke's Hospital, Bethlehem; Francis J. Conahan presided.

William L. Estes, Sr., displayed the photographs of Drs. Green of Easton and read a memorial to them. Donald C. Richards was requested to present the framed photographs and the memorial to the widow of the late Dr. Edgar M. Green, at her home.

The applications for membership of Joseph N. Corriere, of Easton, Eugene E. Polgar, of Bethlehem, and Anthony J. Turtzo, of Pen Argyl, were referred to the censors.

A communication from Dr. Klopp, of the Allentown State Hospital, relative to the newly organized Child Guidance Clinic was read and was referred to the Committee on Public Relations.

Charles A. Nicholas was elected to membership.

Harold A. Miller, director of State Emergency Medical Relief, said that at present there are 2,000,000 people definitely on relief in this state, and another 2,000,000 or more with such low incomes as to place them on the borderline. To provide adequate medical care for this indigent group would cost at least \$50,000,000. For the present month \$11,000,000 has been provided to give those on relief food, clothing, shelter, and medical care; hence the amount available for medical care is necessarily very small. At present only about 50 per cent of the people in this state are potential private patients.

Donald Guthrie, surgeon-in-chief, Guthrie Clinic and Robert Packer Memorial Hospital, Sayre, said that at least 30 states have some form of organized postgraduate medical education. The present plans in this state are provisional and are to be tried for one year. In several counties in this state the plan has worked successfully and those participating are most enthusiastic. The teachers are limited to the faculties of the medical schools of this state. The meetings are held in hospitals, with seminars and discussion of cases in the wards rather than didactic lectures as the medium of instruction. Classes are limited to a minimum of 25 members, for whom 6 seminars and 6 meals are to be provided at a cost of \$10 per member. The local committee must be chosen with great care because they have much work to do.

A motion to empower the president to select a committee to proceed with plans for participation in the postgraduate training program was adopted.

Dr. Roberts, of the Lederle Laboratories of New York, presented a motion picture describing the treatment of pneumonia. The management of a patient from admission to discharge on the pneumonia service of the Harlem Hospital was portrayed. Special attention was given to typing and the use of serum.

Luncheon was served.

FREDERICK J. PEARSON, *Reporter*.

PHILADELPHIA

Mar. 13, 1935

Francis Ashley Faught opened the symposium on periodic health examinations with a paper entitled "What the Periodic Health Examination Should Disclose." Such examinations have long been recognized as an efficient method of determining the potential health of the apparently healthy, and for determining pre-clinical conditions and tendencies toward disease. They may be considered as the exemplification of personal preventive medicine. Unfortunately the practice has not been universally adopted, and the essayist endeavored to point out where the responsibility for this situation rests. For many years this society like many others has had appointed a committee concerned with this phase of medical activity, but little constructive work has been done in this field. At different times, examination blanks have been provided for the guidance of the examiner, and our own members have been urged

to submit themselves to periodic examination in order to inspire confidence in the project. The examination blanks provided have proved impracticable and the physicians have lost interest.

Last year's committee has been more active and gives promise of much accomplishment. A form letter, authorized by the Board of Directors of the Philadelphia County Medical Society, has been prepared and printed on the society's stationery. The present patients of the physician signing the letter are solicited in their own interest to undergo periodic health examinations. These form letters while prepared by the society are to be purchased from the society by the physicians utilizing them. The innovation consists of the physician soliciting his own patients under the sponsorship of the County Society.

The committee has also labored diligently in the preparation of an adult health examination form that would meet all requirements. Dr. Faught stressed the point that the physicians as a class had not, up until this time, manifested sufficient faith in periodic health examinations as shown by their neglect of themselves; hence their lack of interest and success in convincing their patients and the public of their need and value. While many physicians think they are not competent to do this work thoroughly, there are those who do not think they can spare from their routine work the extra time and effort required for the procedure. Others equally indifferent on these same counts fail to appreciate the value of these examinations from the standpoint of increased income. These are lame excuses. Once the physician can convince himself of the desirability of the examination, he will have little trouble with the mechanics of the project. The main purpose of this paper was to emphasize the advantages of these examinations and the ease with which the obstacles deterring them could be eliminated. The author by means of slides and schedules showed how the picture of an individual's physical and physiologic condition could be unfolded so that defects could be more readily detected and remedied in a remediable stage.

"An Analysis of 8584 Periodic Health Examinations of Public School Employees," was presented by Rudolph Bloom. This paper was introduced by a most compelling argument concerning the development of the project and the advantages of such routine work. This study had its inception in the resolution of the Philadelphia Board of Public Education passed in 1925 requiring a health examination of all persons on its pay rolls. The administration of this work was placed under the director of the Division of Medical Inspection, with health examinations to be repeated at such intervals as he should deem necessary. Limitation of the examining personnel required that in those cases showing no alarming departures from normal, reexaminations be restricted to a 5-year interval while those whose health was below par were screened out for reexamination at shorter intervals. Some of these were reexamined yearly. Under the provisions of the resolution, the employees have choice in the matter of the examining physician. They may elect to have the examination made by a member of the medical examining staff of the board without any expense, or by physicians of their own choosing at their own expense. In all cases a standardized examination form is used for recording the results of the examination.

Up to July 1, 1934, 15,955 health examinations have been made, of which 7369 were made by private physicians and 8584 by the examining staff of the board.

"Cardiac Disease in Relation to Periodic Health Ex-

amination," was read by Thomas M. McMillan. The fact was stressed that it is impossible to study the heart unless one has a thorough knowledge of the other organs of the body. The heart, being part of the circulatory system, is affected by disease of different varieties involving the circulatory system, but it may also be deranged definitely by disease of other organs. The causes of heart disease may therefore originate in localities more or less distantly removed from the heart itself. Ninety per cent of all heart disease may be traced to 1 of 5 causes, namely, hypertension, arteriosclerosis (particularly of the coronary arteries), rheumatic fever, syphilitic disease, and thyroid dysfunction. The relation of heart disease to periodic examinations becomes obvious when these widely distributed etiologic factors are appreciated. A complete periodic health examination that succeeds in isolating any or all of these factors confirms the suspicion of ultimate cardiac involvement. The earliest evidences of heart disease are determined usually by a carefully taken history. Breathlessness upon exertion, he regards as significant of early cardiac disease. Of great importance in the diagnosis is the electrocardiogram as well as the fluoroscope.

"Focal Infection in Relation to Periodic Health Examination," was presented by Edward J. G. Beardsley. He commented on the great privilege the physicians have of observing men, women, and children throughout the whole extent of their lives and deplored the fact that we have not always taken full advantage of all these opportunities to enable ourselves to be most helpful to the citizens of the state. We have been more interested in disease than in the study of man himself. We perhaps have overemphasized the importance of advanced pathologic changes and have not been sufficiently careful in the thoughtful study of how to keep our patients well. His statement that a health examination is an unexcelled test of a physician's intellectual capacity as well as his honesty of purpose must meet with the approval of everyone. Such an examination affords an excellent criterion of the practical use of his cultivated and trained imagination, his technic, knowledge and skill, and of his ability to utilize his understanding of practical psychology and psychotherapy for the patient's benefit. It is perhaps needless to state that a physician increases his skill in physical examinations and adds to his wisdom in the interpretation of psychologic manifestations by the actual performance of the examination, and not by the perusal of books upon the subject as is commonly thought.

The relation between focal infection and disease becomes more and more emphasized as results of periodic health examinations are studied. The term focal infection implies the extension of a chronic localized infection, from which focus there has resulted either systemic infection or infection in near or remote portions of the body. A focus of infection may have already, by extension of infection, produced a reinoculation, or the germs present in the local infection may be conveyed by the blood vessels or lymphatics to other portions of the body, or the bacteria may invade the blood stream causing septicemia, or if they have not multiplied in the blood, they may lodge in some remote part of the body and form a new focus of infection. Regardless of the theories of how focal infection operates in the production of other infections, the relationship from a clinical standpoint is unquestionable. The removal from the patient of any or all foci of infection constitutes an excellent method of therapy. The good effects witnessed when foci of infection are removed, even in long-continued infection with the various path-

ologic changes, have been, in spite of occasional disappointments, most gratifying.

The focus of infection which leads to the greatest amount of evil has been located in the faucial and lingual tonsils. Next in importance comes infection in connection with the teeth. The importance of focal infections in connection with the prostate gland, the gallbladder, the appendix, and other structures cannot be ignored. The main purpose of the paper was to stimulate the profession to a broader conception of the method of determining causes of disease remote from their immediate pathologic origin and disturbed physiology.

"Why Periodic Health Examination," was read by Abraham I. Rubinstein. This paper included the general consideration of periodic health examinations which the author regarded as valuable in detecting maladies in the individual patient and thus producing benefit to the community. Due to a better understanding of the mechanism of disease, medical men are now very quick to recognize and treat early symptoms of disease, thus preventing serious consequences as well as prolonging the life of the patient, in contrast with the impotency in this regard of the doctor of 75 years ago. Instead of leaning largely upon empiricism the physician of to-day has at his command not only a refinement of diagnostic technic but much specific therapy to be used not only for prevention but for the purpose of increasing body resistance to specific diseases and of regulating function such as metabolism and nutrition, and for eradicating existing diseases or sustaining the patient through illness. He believes that we have failed to inform and educate the layman and have not used the facilities at our command for this important service of conserving health and preventing disease. We have taught the individual layman to consult us for the treatment of symptoms of a disease, but it is questionable whether we have exhausted the possibilities of education of the individual layman as regards prevention. He laid particular emphasis upon the necessity and responsibility of the physician to provide all those with whom he comes in contact with an understanding of what could be done to prevent and control individual infections. It is our duty to inform the layman of our ability to measure and interpret subjective symptoms and objective signs and to evaluate these in relation to such conditions that individually may lead to structural changes. Lastly, we should inform him of our more modern and efficient equipment to reestablish normal systemic balance, raise resistance to susceptible disease, and cope with and eradicate, if possible, already established disease. This paper concluded with a reference to the community work done in the field of compulsory health examinations by the Mt. Sinai Hospital and other community enterprises.

Mar. 27, 1935

(Columbia University, Presbyterian Hospital [New York City] Night.)

"Surgical Interference in Tumors of the Pancreas," was the title of the paper read by Allen C. Whipple. The possibility of the development of surgery of the pancreas was evolved by the opportunity that came when operating upon adenomas of the pancreas through cases referred from the Neurological Institute of New York City. The patients did so well under the existing technic that it was deemed advisable to extend its applicability to other pancreatic conditions, notably cystadenomas. In the reports of pancreatic operative cases, the outstanding complications were hemorrhage and the

occurrence of fistulae; under the technic employed by Dr. Whipple these were infrequent. Within the last 5 years, his experience has embraced the following groups of pancreatic lesions: Carcinoma, 32; sarcoma, 1; adenoma, associated with hyperinsulinism, 6; cystadenoma, 2; cyst, 7; chronic pancreatitis, cases in which tissue was removed for biopsy, where the lesion was not due to common duct obstruction or common duct stone, 10; acute pancreatitis, 10; miscellaneous, 12; a total of 80 cases. The cases of adenoma of the pancreas provided the most interest. These were associated with hyperinsulinism. This relation was discovered in 1929 by Graham, since which time 18 cases have been successfully operated upon, including the 6 in this series of Dr. Whipple. Hyperinsulinism can be associated with pathology other than that of the pancreas. Such lesions may involve the pituitary body, floor of the third ventricle, *etc.*, but are associated with such striking symptoms that they need not be confused with typical cases of hyperinsulinism.

The state of hyperinsulinism results in mental deterioration, discouragement, irritability, loss of confidence, and often loss of employment should the patient occupy a responsible position. It is therefore essential to determine the presence of an adenoma of the pancreas in persisting cases. When the diagnosis of hyperinsulinism is established, the patient should be given a 3 or 4 weeks' course of intensive medical therapy. An exploratory operation is then performed under spinal anesthesia.

"Some of the Physiologic Aspects of Carotid-Jugular Anastomosis," was presented by Arthur Blakemore. This paper had for its purpose the demonstration of the circulatory changes on a physiologic basis when such anastomosis is created. The laboratory technic was explained and illustrated, and the phenomena were described in detail.

"Cardiac Output Studies in Carotid-Jugular Anastomoses," was described by George H. Humphreys and served as complementary to the previous paper. Both of these papers reflected an infinite amount of detailed laboratory work, possibly too technical for adequate appreciation by the physician unaffiliated with a laboratory of physiology.

In discussion Damon Pfeiffer stated that Dr. Whipple's paper reviewed the evolution of the knowledge whereby hyperinsulinism might bring about adenoma of the pancreas, and emphasized the fact that a greater incidence of this relationship might be demonstrated by closer scrutiny of our cases of hyperinsulinism; that surgery of the pancreas had been developed to such a degree that its hazards were greatly reduced, and the prospects of a successful result were very great.

Patrick A. McCarthy reported his results in operation upon 65 cases of aortic aneurysm in the last 6 years according to W. Wayne Babcock's method; 15 were living, 2 more than 4 years. None had died of rupture of the aneurysm sac. None showed enlargement of the heart. His more recent views prompted him to consider that a great deal of experimental and clinical study must be given to end-to-end anastomosis, as in the experimental work of Blakemore and Humphreys. Possibly a more satisfactory technic for the treatment of aortic aneurysm may be evolved. W. Wayne Babcock contributed some valuable observations upon the subject of the results of his aortic aneurysm operation. The striking factor in these operations, he stated, is not the blood pressure but the "well" pressure. If rupture of the sac can be prevented, a great deal can be done for the patient. None of his cases has ruptured.

Another striking thing is that when the operation is done and the velocity of the blood is increased, the vein reduces in size. When an end-to-end anastomosis is done, the blood rushes through the vein when the clamp is removed, and the vein immediately becomes reduced in size. The effect on the heart is not serious. H. C. Bazett reported upon his experiments in this field, which date back to 1921. These results were confirmatory of the foregoing observations. Louis B. LaPlace presented clinical data by means of slides having to do with the same subject. SAMUEL HORTON BROWN, *Reporter*.

WARREN

Mar. 18, 1935

The meeting was held at Warren with 28 members and 2 guests present.

Hugh R. Robertson reported a case of tubal pregnancy which had gone to term. The patient, age 38, menstruated last Jan. 20, 1934. In October, 1934, she experienced labor pains and entered the hospital, but was discharged in a few days. She was readmitted in November for the same symptoms, again leaving after a few days' stay without result. On Jan. 14, 1935, nearly one year after the last menstrual period, she was again admitted to the hospital when the roentgen ray showed a fetus of full development in a supposedly normal location.

The cervix showing no signs of dilatation, it was stretched and a bag introduced which brought on labor pains. The use of forceps brought out a still-born badly macerated fetus and a placenta to which was adherent what seemed to be a piece of omentum. A diagnosis of ruptured uterus was made and a laparotomy performed when it was discovered that the fetus had been delivered through the posterior culdesac, that the uterus was ruptured, the right tube separated from the uterus, and the uterus adherent to the bladder. The tube had paper-thin walls from its distention. After packing and surgical repair the patient made a good recovery, leaving the hospital after a month's stay.

William M. Cashman called attention to the Schiller test for precancerous condition of the cervix—a test made by swabbing the cervix with Lugol's solution.

Dinner was served, Drs. Crane, Chapman, Durham, and Flatt being the hosts.

MICHAEL V. BALL, *Reporter*.

WYOMING

Apr. 10, 1935

The meeting was held at Tumkhanock; luncheon was served. Leslie Boone, of Kingston, now practicing in Mehoopany, was elected a new member.

There was a description of the present relief situation with respect to the incomplete payment of bills presented to relief boards.

Marshall C. Rumbaugh of Kingston, Luzerne County, read a paper on "Lumbar Anesthesia." Dr. Rumbaugh said in part: The paper covers a series of 900 operations performed under lumbar anesthesia during the past 5 years. The technic as suggested by Labat is followed to the letter, and neocaine is the drug of choice. The speaker amplified the need for teamwork, consisting of thoroughly trained assistants, in giving lumbar anesthesia. He never gives lumbar anesthesia if the patient requests general anesthesia, unless there is some complication which makes it more desirable, in which

case the patient's consent is obtained. The best cases for lumbar anesthesia are those with normal blood pressure who wish to avoid general anesthesia. The following conditions constitute a group of cases in which lumbar anesthesia may well be used: Pulmonary complications; liver and kidney insufficiency, especially in the delivery of an eclamptic or preëclamptic patient; in the diabetic where a portion of the lower extremity needs to be amputated; and hypertension complicating surgical conditions.

Technic.—The night before operation the usual skin preparation is done and an enema may be given; no enema is given immediately before any operation when lumbar anesthesia is used. One-half hour before the operation a hypodermic injection of morphine and atropine is given if the blood pressure is not below 120 mm. Hg. This is not always given as some patients do better without any sedative until after the operation with lumbar anesthesia. If the blood pressure is low, morphine grains $\frac{1}{4}$ with ephedrine grains $\frac{3}{4}$ is given by hypodermic. In preparing the patient on the table for the injection, the skin surface is painted with 5 per cent picric acid in alcohol. The skin and deeper structures of the selected interspace are infiltrated with .5 per cent novocaine, care being taken not to inject any of the aqueous solution into the subarachnoid space. A 22-gauge needle is used. One to 2 c.c. of spinal fluid is allowed to drop into the ampule containing the anesthetic crystals. As soon as they are dissolved the contents of the ampule are drawn into a syringe and the injection completed. The patient is immediately placed in the Trendelenberg position. When failure of lumbar anesthesia by this method occurs, gas, ether, or local anesthesia may be safely used. This also applies to cases in which the operative time exceeds the spinal anesthesia time. He uses 0.10 gm. of neocaine for all abdominal work and 0.02 gm. to 0.05 gm. for perineal and rectal work. In abdominal sections he routinely uses 0.10 gm. of neocaine, unless the patient is under 100 pounds in weight, in which case 0.08 is given. In all perineal and rectal work, and in forceps delivery, 0.03 to 0.05 gm. is given with perfect anesthesia for at least a half hour, with no fall in blood pressure or untoward symptoms. The larger dose produces anesthesia from 40 to 60 minutes; the smaller dose from 20 to 30 minutes.

The safety of lumbar anesthesia depends upon how well the administrator is acquainted with the technic of the use and the subsequent treatment rather than upon the anesthetic used.

Dr. Rumbaugh considers spinal anesthesia to be as safe as ether and a great deal more convenient and helpful; it can be used more or less routinely for operations below the diaphragm, and is the anesthesia of choice in most acute abdominal emergencies; there is less postoperative discomfort and less vomiting; headache is rare if a small caliber lumbar needle is used; and food is given 24 to 48 hours earlier to the patient who has had lumbar anesthesia.

ARTHUR B. DAVENPORT, *Reporter*.

YORK

Mar. 25, 1935

President R. L. Ellis was in the chair.

Thaddeus L. Montgomery, associate in obstetrics, Jefferson Medical College, Philadelphia, gave an address on "The Significance of Hemorrhage Complicating Pregnancy and Labor." (This paper was read before

the Luzerne County Medical Society, April 3, for abstract of which see page 662 of this issue of the JOURNAL.)

In discussion Norman H. Gemmill, Stewartstown, asked what part the infantile uterus plays in miscarriage, and what part operations for dysmenorrhea play in pregnancy. Roland Jessop, York, asked when it was safe for a pregnant woman to motor. Joseph C. Atkins, Red Lion, asked how long a woman with a history of habitual abortion should be put to bed. Harris R. Le-crone, York, asked if cases of inevitable abortion with rise of temperature were not mostly induced. Fred F. Bergdoll, North York, asked in what per cent the biologic test is positive in ectopic pregnancy. James H. Howard, York, asked what per cent required blood transfusion, and in normal delivery what form of ergot or pituitary extract is the best. Joseph C. Atkins, Red Lion, asked about the study of prolan in the urine of persons suffering with chorionepithelioma. Richard M. Klussman, York, asked whether toxic infarcts could cause the placenta to separate prematurely. Robert L. Ellis, York, asked the incidence of recurrence of hydatid mole when not malignant, and whether autotransfusion was useful in ectopic pregnancy.

Dr. Montgomery, in closing, replied that the infantile uterus plays an important part in miscarriage, but more often it is caused by a systemic disturbance with some upset, or by a pituitary or ovarian secretion; that cervi-

cal operations have important relationship to pregnancy. Motoring can be enjoyed by pregnant women up to 4 months; but the less often a patient is in an automobile, the better. She should not drive the car herself, nor take long trips. If abortion is habitual she should not motor but should be put to bed for 6 weeks to 6 months except when there is no distress or abdominal cramp. Rise of temperature is frequent in inevitable abortion. The Friedman test is positive in the first 3 or 4 weeks of pregnancy; but if the fetus is in the peritoneal cavity, the test is negative; a negative reaction is not dependable, but a positive reaction is always accurate. (Not always.—EDITOR.) Every placenta praevia patient should be transfused early. If the blood loss is great, glucose or saline should be given while she is being typed. Transfusion is valuable in ectopic pregnancy; autotransfusion is not so desirable. "Ernutin" and "fundin" are active, clear, nonirritating solutions. Infarction of the placenta, especially in nephritic toxemia, certainly causes premature separation of the placenta. Placental changes are certainly the result of a metabolic disturbance and not the cause of the toxemia. The type of infarct is hematoma. Prolan (pituitary-like substance) in suspected chorionepithelioma is found in urine in dilutions of 1/20. Recurring hydatid mole takes place until the mechanism of syncytiotrophoblast in the blood stops, but one should be sure to empty the uterus.

H. MALCOLM READ, *Reporter*.

The Woman's Auxiliary to The Medical Society of the State of Pennsylvania

MRS. GEORGE C. YEAGER, *Editor*, 1419 E. Susquehanna Ave., Philadelphia, Pa.

A MESSAGE FROM THE NATIONAL PRESIDENT

With only a few weeks until the national convention, which will be held in Atlantic City, June 10-14, I am sure that you are intensely interested in the plans that are being made for our comfort and pleasure as well as the efficient movement of the business meetings. We have chosen the Traymore Hotel for our headquarters, and all meetings for the transaction of business will be held there as well as the auxiliary luncheon on Wednesday and the Bring-Your-Husband dinner on Thursday evening preceding the reception and ball for the president of the American Medical Association.

We have tried to take advantage of the many attractions that our most famous seashore resort has to offer. The room in which our business meetings will be held overlooks the ocean. Most of our entertainment will be in sight of the water and some out in the air and sun.

The combined thought and efforts of the wom-

en of New Jersey, Pennsylvania, and Delaware, with the Atlantic County Auxiliary assure us of a completeness of detail of which we may all be proud. We have a great opportunity this year in the visit of the Canadian women who will accompany their husbands to the combined conventions of the medical associations of the 2 great countries of North America. And while it is the privilege of the auxiliary to make the plans for business and pleasure, it is our high hope that we may be able to make every physician's wife feel how great is the welcome to her. We hope that every one will register at the Traymore and share our attractions with us, coming to any meeting in which she may be interested.

To you in Pennsylvania, may I express the great appreciation that your National Board has for the fine work that you have done. And for myself, I wish to say a word of heartfelt gratitude for your loyalty and cooperation. Without you much would not have been completed. Your spirit is an inspiration to all who have the pleas-

ure of any connection with you, and you have truly been a real auxiliary or "THAT WHICH HELPS." MRS. ROBERT W. TOMLINSON.

PUBLIC HEALTH EDUCATION

We read much to-day about security for the working classes; in fact, security along health lines is for the first time a goal in national legislation.

We who are interested have a golden opportunity to make available to others less well-informed what science offers us for the prevention and cure of disease. It is a matter of serious thought and study to make available for those who are not able to pay for it the best medical care.

Besides the ever-present problems of pure water and milk supplies, sewage disposal, quarantine regulations, and other community problems, there are 2 special programs that should appeal to organizations like our auxiliaries—specialized care for children and the protection of mothers. Grace Abbott says, "Children are not pocket editions of adults, needing only the protection against disease that the adult needs. This fact is often ignored by health administrators."

The death rate from childbirth is truly appalling, and as this, of course, affects the security of the home, we must make a new effort to educate the laity along this line and to help provide nursing and consultation services for these mothers.

So many reductions have been made in budgets of state and local health organizations that it is more than ever necessary to give our individual help to safeguard health and life in our own communities.

Some one has said, "As a rule the comfortable are quite incurious as to what is going on around them; the secure are undisturbed by social noises and alarms." Let us as auxiliary members be neither comfortable nor incurious to the extent that we neglect to do our part in spreading health education. Let us encourage further research and better community organization to use what knowledge we already have for the benefit of those less fortunate than ourselves.

Gilbert Chesterton said, "There are no uninteresting things, there are only uninterested people." This health question is surely an important one if we would gain any kind of security for our children and our homes. May we not as auxiliary members be the "interested" people who will help further this work?

MRS. JOHN R. DAVIES, *Chairman,*
Committee on Public Health Education.

COUNTY AUXILIARY REPORTS

Allegheny.—On April 2, the second Program Conference was held under the auspices of the Public Relations Committee of the auxiliary, at the Congress of Women's Clubs. Mrs. Daniel N. Bulford, chairman of the Public Relations Committee, presided and offered the following types of programs for greater interest: Outline development programs; radio discussion program; round-table discussion; question development program; and penal conference.

Dr. William W. McFarland, chairman of the General Health Council, discussed "Coöperating Public Health Projects." To be fully effective, any program must center around the family. As a result of disease, scars are left on the individual. For example, scarlet fever may be complicated by mastoiditis or a kidney condition. These conditions, though cured at the time, may reappear in later life. Prevention of diseases in childhood means a healthier adult. Individual health is step by step, such as prenatal care in maternal welfare, infant care, care of the preschool child and the school child, child labor, and periodic health examinations for adults.

The community health is concerned with the water supply, the milk supply, general sanitation, hospitalization, vital statistics in the community, and garbage disposal. A community that seeks health obtains health. Dr. McFarland gave the following definition of health: "Health is that condition of the body and mind which renders the individual fit to obtain the maximum benefit in life, both in self-service and service to others."

Dr. Charles H. Henninger spoke on "Mental Hygiene—Its Place in Health Achievement." The mental hygiene movement was started about 25 years ago by Clifford Beers who urged that patients have better hospital care. Beers later wrote "The Mind That Found Itself."

The Mental Hygiene Association hopes to accomplish the most through the Parent-Teachers Association and Child Guidance Clinics and thereby reach the children in the home and school. Every child is entitled to the best possible mental and physical health, and special attention must be directed to the development of character, personality, and self-control at the earliest possible time. Mental hygiene should begin at the time of birth.

Dr. Henninger emphasized that all power not under control is destructive, and this applies to mental power as well as physical; that proper attention to mental health will in time diminish the number of cases in our institutions, as has been demonstrated with epilepsy. The number of epileptics under institutional care has been markedly reduced in the past 10 years.

Mr. H. B. Steele, a representative of the Pittsburgh Milk Producers' Association, spoke on the change in relief administration. Cash relief has been in effect in Allegheny County since Jan. 16. On Nov. 16 there was a minimum of 60,000 quarts of milk used daily, and on Feb. 14 there were 25,000 quarts of milk sold to those on welfare. This showed a very great drop in the purchase of milk from the time families were on food orders.

Mrs. Laurie D. Sargeant brought the meeting to a close by stressing the value of such a conference.

Chester.—The regular meeting of the auxiliary was held Mar. 19, at the Olivet Methodist Church, in Coatesville, in conjunction with the annual meeting of the Health and Welfare Council. The morning session was given to the reports of committees, commissions, and agencies; the afternoon was given over to the guest speakers. Luncheon was served by the ladies of the church at 1:30 p. m. Dr. Wilmer Krusen, of Philadelphia, a director of the Public Charities Association of

Pennsylvania, spoke on "Putting Relief on an Efficiency Basis." His remarks were elaborated upon by Mr. George R. Bedinger, executive director of this Association. Dr. Arthur C. Christie, of Washington, D. C. (a signer of the Minority Report on the Costs of Medical Care), gave a talk on "The Place of Health Insurance in Comprehensive Plans of Medical Care."

Delaware.—On Mar. 1, the board luncheon meeting was held at the home of Mrs. J. B. Klopp, of Chester; all members were present. On Mar. 14, the regular stated meeting was held at the Chester Hospital; Dr. William T. Johnson, of Swarthmore, member of the staff of the Graduate School of Medicine, University of Pennsylvania, gave an illustrated lecture on "The National Parks of the U. S. A." Plans were discussed for the annual card party, which will take place in April, to raise money for the Medical Benevolence Fund. On Mar. 22, a luncheon board meeting was held at the home of Mrs. Francis Miller, of Chester.

Erie.—The auxiliary held a luncheon and musicale Apr. 1, at the Woman's Club. A business meeting followed, with musical selections. About 55 were in attendance.

Indiana.—On Jan. 17, the annual dinner was held at the College Inn Tea Room with unique games between courses. There followed a business meeting outlining the program for the year.

On Feb. 14, we had a very successful Valentine Bridge Benefit for the Medical Benevolence Fund.

On Mar. 14, there was a musicale at the home of Mrs. Harry B. Neal. Mrs. David B. Ludwig, State Historian, urged us to do our part toward the exhibit for Pennsylvania at the Atlantic City meeting. She read some of her poems and some written by her son. Tea was poured.

Lackawanna.—The meeting of the auxiliary was held Mar. 12, at the Chamber of Commerce building. Dr. John J. Brennan, for many years chairman of the county society's legislative committee, gave a résumé of a number of bills which are listed for action during the present session of the legislature at Harrisburg.

Montgomery.—The meeting of the auxiliary was held Apr. 3, at the home of Mrs. Donald A. Headings, of Norristown. Mrs. J. Lawrence Eisenberg presided at the business meeting. It was approved to give \$100 to the Medical Benevolence Fund. The members planned a card party to be held in May.

Announcement was made of the next meeting of the auxiliary to be held May 1, Child Health Day, at the Plymouth Country Club. The following delegates were appointed to the fifth annual Health Institute sponsored by the auxiliary to the Philadelphia County Medical Society, to be held Apr. 9: Mrs. Wallace W. Dill, Mrs. William G. Catlin, and Mrs. Perry W. McLaughlin.

An invitation was received by the auxiliary to attend a meeting at the Y. W. C. A., Apr. 5, to hear Dr. J. Walter Stein, of Ardmore, give an address on "Compulsory Health Insurance."

Mrs. Frederick Zimmerman is a new member.

Mrs. I. Barnett, wife of Rabbi Barnett, of Tiferes Israel Synagogue, discussed the health conditions of the Holy Land and the organizations formed to combat those conditions. Refreshments were served.

Northampton.—The monthly meeting of the auxiliary was held Mar. 14, at St. Luke's Hospital, Bethlehem. The purpose of the meeting was the making of surgical dressings from 10 a. m. to 4 p. m. Five thousand and

forty dressings were made. Mrs. W. A. Finady was hostess. After luncheon the business meeting was held, presided over by Mrs. Carl Welden, president.

It was decided to have 50 mimeographed copies made of the revised constitution, to be distributed among the members.

Philadelphia.—On Apr. 9, the auxiliary held its fifth annual Health Institute with Mrs. Edward J. Klopp presiding. The session began at 10 a. m., with luncheon at 12:15, served by auxiliary members; afternoon session 2 to 4:30. The speakers were Drs. Ruth Hartley Weaver, Franklin B. Royer, Edward A. Strecker, Emily P. Bacon, Chevalier L. Jackson, Stanley P. Reimann, Seth A. Brumm, Mrs. Robert W. Tomlinson, president of the National Auxiliary, and Mrs. Laurrie D. Sargeant, president of the State Auxiliary. Many organizations were invited to attend. The topic of the day was "Health and the Depression." The program was arranged by Mrs. Wilmer Krusen.

Up to this time the auxiliary has welcomed 76 new members.

Schuylkill.—The monthly meeting of the auxiliary was held in the Pottsville Free Library, Mar. 12. Mr. George Harold Weiss, superintendent of the Ashland State Hospital, offered to entertain the ladies and their friends at a card party in the recreation rooms of the hospital. The date will be announced later.

Medical News

Births

TO DR. AND MRS. ARTHUR C. F. ZOBEL, of Johnstown, a daughter, Mar. 30.

TO DR. AND MRS. EURFRYN JONES, of Camp Hill, a son, Robert Eurfryn Jones, Mar. 23.

TO DR. AND MRS. GILBERT L. DAILEY, of Harrisburg, a son, William Cornelius Dailey, Mar. 21.

TO DR. AND MRS. WALTER H. BURGIN, of New Cumberland, a son, Walter H. Burgin, Jr., Apr. 14.

Engagement

MISS CYNTHIA THOMPSON IVY, daughter of Dr. and Mrs. Robert H. Ivy, of Lansdowne, and Mr. Charles Dieck, of Detroit, Mich.

Marriages

MISS MARGARET P. SWARTZ to Dr. Herbert S. Raines, both of Philadelphia, Mar. 4.

MISS REBECCA COHEN to Dr. Bernard Viener, both of Harrisburg, Mar. 17, at Philadelphia.

MISS MARJORIE LEE SPRYE, of High Point, N. C., to Dr. Robert Park, Jr., of Beaver Falls, Feb. 16, in Brooklyn.

MISS GRACE ALICE WEST, daughter of Dr. and Mrs. William H. West, Harrisburg, to Mr. Fred Oscar Staley, of Littlestown, Apr. 22.

Deaths

JOSEPH C. BOGGS, Pittsburgh; University of Pittsburgh School of Medicine, 1890; aged 67; died Feb. 21, in San Antonio, Texas, of coronary occlusion. Dr. Boggs was a former member of the Allegheny County Medical Society. He served during the World War.

LEO FRANCIS BONNER, Paulsboro, N. J.; Hahnemann Medical College of Philadelphia, 1928; aged 31; died Apr. 23, after a prolonged illness. Dr. Bonner served his internship at St. Luke's and Children's Hospital, Philadelphia, and also practiced at one time at

Northampton, Pa. He is survived by his widow, a daughter, and 2 brothers.

FRANK SAMUEL BOYER, Allentown; Medico-Chirurgical College, of Philadelphia, 1909; aged 60; died Mar. 22. Dr. Boyer was born in Walker Township, Schuylkill County, near Tamaqua, Sept. 7, 1875. He was graduated from the Keystone State Normal School located at that time at Kutztown, and for 10 years taught school in eastern Pennsylvania, at Hellertown, Tuscarora, and other places. He served his internship at the Allentown Hospital 1910-1911. He served on the staff of the Sacred Heart Hospital and for almost a quarter of a century had been medical inspector in the public schools, during the last several years serving as chief medical inspector in the Allentown school system. He was a member of his county (past president) and State medical societies, and a Fellow of the A. M. A. He is survived by his widow, 2 sons, and a brother, Dr. George Boyer, of Allentown, and a sister.

MAURICE A. BUNCE, Philadelphia; University of Pennsylvania School of Medicine, 1893; aged 62; died Mar. 19.

RUDOLPH ADAM CONSTEIN, Ashland; University of Pennsylvania School of Medicine, 1900; aged 57; died Mar. 24. He had been ill for the past 4 months. Following an operation at the Geisinger Hospital, Danville, he returned to his home on Jan. 23 and had been bed-fast since. Dr. Constein was a native of Ashland, and was graduated from the Ashland High School. He practiced medicine at Ashland since 1904. He saw service overseas during the World War and at the time of death was Commander of the Ashland American Legion Post. He was a member of his county and State medical societies and a Fellow of the A. M. A.

Surviving are 2 brothers and a sister.

DAVID DALE, Bellefonte; University of Pennsylvania School of Medicine, 1904; aged 59; died Apr. 22, after a year's illness. Dr. Dale was a graduate of Gettysburg College and starred on the football teams of that institution and the University of Pennsylvania. He was chief of staff of the Center County Hospital. He was a member of his county and State medical societies and a Fellow of the A. M. A. His widow and one daughter survive.

ALEXANDER H. DEAN, Wilkes-Barre; Jefferson Medical College, 1900; aged 60; died Mar. 19. Dr. Dean was a member of his county and State medical societies and a Fellow of the A. M. A.

ADAM J. DUNDORE, Philadelphia; Jefferson Medical College, 1866; aged 92; died Feb. 21, of arteriosclerosis.

HERMAN FREDERICK WILLIAM FLOCK, Williamsport; Jefferson Medical College, 1920; aged 40; died Mar. 7. Dr. Flock was born in Williamsport, Oct. 1, 1895, receiving his early education in the Williamsport public schools. His internship was served at the Williamsport and Bethlehem Hospitals. He did postgraduate work in the Manhattan Eye, Ear, Nose and Throat Hospital, also in Vienna and in Germany. For 9 years he was chief of the department of eye, ear, nose and throat at the Williamsport Hospital. He was a member of the American Academy of Ophthalmology and Otolaryngology, the American Board of Oto-Laryngology, and a Fellow of the American College of Surgeons; a member of his county and State medical societies and a Fellow of the A. M. A.

FRANK D. GLENN, Blairsville; University of Pittsburgh School of Medicine, 1904; aged 56; died Mar. 9. Dr. Glenn was a member of his county and State medical societies and a Fellow of the A. M. A.

HERMAN GROTH, Pittsburgh; University of Pittsburgh School of Medicine, 1902; aged 66; died Mar. 21. Dr. Groth was born in Germany. He was a member of his county and State medical societies and the A. M. A.

WILLIAM JEFFERSON GUERNSEY, Philadelphia; Hahnemann Medical College of Philadelphia, 1875; aged 81; died Mar. 27. Dr. Guernsey was a member of the International Hahnemannian Association and the Northeast Medical Society. He was one of the founders of the Frankford Symphony Society and was its manager for 20 years. He is survived by a daughter.

HENRY W. HIMMELBERGER, Reading (Reiffton); University of Pennsylvania School of Medicine, 1869; aged 89; died Feb. 27.

MRS. ELIZABETH KIRK, wife of Dr. Clair B. Kirk, Mill Hall, died Mar. 9. Mrs. Kirk was a charter member of the Auxiliary to the Clinton County Medical Society and a past president.

LEE J. KNERR, Philadelphia; Hahnemann Medical College of Philadelphia, 1880; aged 77; died Feb. 17, of gastric hemorrhage and carcinoma of the prostate.

RICHARD NATHAN MACKEY, Clarks Summit (Lackawanna County); Medico-Chirurgical College of Philadelphia, 1910; aged 48; died Apr. 1. Dr. Mackey was born in Waverly and was graduated from the Waverly High School, completing his premedical course at the Keystone Academy and Bucknell University. Upon completion of his internship at the Moses Taylor Hospital, Scranton, he began practicing in Clarks Summit. During the World War he served as first lieutenant in the Medical Corps of the United States Army. He conducted until the time of his last illness the Dr. Mackey Private Hospital, Clarks Summit. He was a member of his county and State medical societies. He is survived by his widow, a daughter, 2 brothers, Dr. Robert Mackey, of Montrose, and Dr. Roger Mackey, of the United States Navy, and a sister.

WILLIAM EDWARD MILLER, Colwyn (Dela. Co.); Medico-Chirurgical College of Philadelphia, 1899; aged 65; died in the Lankenau Hospital, Philadelphia, Apr. 12, of influenzal pneumonia. He was a member of the Philadelphia County Medical Society, the State Medical Society, and a Fellow of the A. M. A.

FRANK THOBURN NASON, McKeesport; University of Pittsburgh School of Medicine, 1889; aged 68; died Apr. 4, from thrombosis of the superior mesenteric vessels with gangrene of the ileum. Dr. Nason was a former member of the Allegheny County Medical Society.

DAVID M. PERKINS, Pittsburgh; University of Pittsburgh School of Medicine, 1893; aged 70; died Mar. 31. Dr. Perkins specialized in otology, laryngology, and rhinology. He was a member of his county and State medical societies and the A. M. A.

GEORGE R. ROHRER, Lancaster; aged 81; died Mar. 31. Dr. Rohrer was born in Middletown, Dec. 11, 1853, a son of Major Jeremiah and Mary Anna Redsecker Rohrer. The family moved to Lancaster in 1864, and Dr. Rohrer was graduated from the Lancaster High School in 1870. Six years later he began studying medicine in the office of the late Dr. John L. Atlee, Jr., and was graduated from the University of Pennsylvania School of Medicine, 1880. He served his internship at the Philadelphia Hospital and for a year was house surgeon at the Wills Eye Hospital. He began practice in Lancaster in 1883 and was a member of the staff of both the Lancaster and St. Joseph Hospitals. He was a member of his county and State medical societies and a Fellow of the A. M. A. Three sons survive.

MARION ULRICH, Millersburg; College of Physicians and Surgeons, Baltimore, 1880; aged 83; died Apr. 22, at the Harrisburg Hospital, of pneumonia, which developed after a fall and fracture of the left thigh. He was a member of his county and State medical societies and a Fellow of the A. M. A.

FRANK WHITE, Philadelphia; Jefferson Medical College, 1891; died Mar. 28, from heart disease. Dr.

White was born in Crawfordsville, Ind., and upon graduation in medicine entered practice in Philadelphia. For a number of years he was surgeon to the American Stomach Hospital, and was also associated at different times with the Howard Hospital, Graduate Hospital, and the Medico-Chirurgical Hospital. He was a member of his county and State medical societies and a Fellow of the A. M. A. He is survived by his widow.

MRS. ALBERT DRAPER WHITING, Philadelphia, widow of the late Dr. A. D. Whiting of Philadelphia, died in the Germantown Hospital, Apr. 23, after an illness of 5 months; aged 66. Two sons survive.

CHARLES W. YOUNGMAN, Williamsport; Jefferson Medical College, 1883; aged 77; died Mar. 5. Dr. Youngman was born Sept. 17, 1858, and was one of the founders of the Lycoming County Medical Society. He began practicing in Williamsport in 1884. He was a pioneer in the fight against tuberculosis in that section of the state and for many years directed the activities of the State Health and Tuberculosis Clinic, which under his skilled supervision has become one of the most efficient health centers in the Commonwealth. He was ardently devoted to the best interests of the Williamsport Hospital, the Williamsport Board of Health, and the Lycoming County Health Board. In addition to his county medical society he was a member of the State Society and a Fellow of the A. M. A.

Miscellaneous

THE EX-RESIDENTS' SOCIETY of the Jewish Hospital, Philadelphia, held its Second Annual Dinner, May 1, at the Hotel Adelphia.

DR. AND MRS. HENRY W. GEORGE and their 2 daughters, of Middletown, have returned from an extended Mediterranean trip to the Holy Land.

THE MEDICAL CLUB OF PHILADELPHIA had as its guest of honor at a reception held Apr. 23, Dr. Henry W. A. Hanson, president of Gettysburg College.

DR. LAMAR H. DAVENPORT, of DuBois, who has taken a position on the Mayo Clinic staff, has joined the Olmsted County Medical Society, Minnesota.

DR. REGINALD M. ATWATER, commissioner of health in Cattaraugus County, N. Y., for the past 8 years, has been appointed executive secretary of the American Public Health Association.

THE ACADEMY OF PHYSICAL MEDICINE will hold its annual meeting, June 12-13, at the Claridge Hotel, Atlantic City, N. J. For further information address Arthur H. Ring, M.D., secretary-treasurer, Arlington, Mass.

THE ANNUAL MEETING of the American Association for the Study of Goiter will be held in Salt Lake City, Utah, June 24 to 26 inclusive. For further information address Dr. W. Blair Mosser, corresponding secretary, Kane, Pa.

DR. DANIEL J. MCCARTHY, of Philadelphia, was recently appointed medical director of the Municipal Court, to fill the vacancy caused by the death of the late Dr. John Montgomery Baldy. Dr. Baldwin L. Keyes was appointed consulting psychiatrist to the court.

GOVERNOR EARLE, Apr. 8, submitted to the Senate the nomination of Philip G. Platt, Wallingford (Delaware County), and Dr. Samuel J. Waterworth, Clearfield, as members of the State Sanitary Water Board, to succeed W. C. McCormick and Edmund C. Wingerd.

DR. HARRY A. DUNCAN, associate professor of gynecology, Temple University Medical School, has been appointed visiting obstetrician and gynecologist to the Philadelphia General Hospital, to fill the vacancy caused by the death of the late Dr. Edmund B. Piper. Drs. J. Marsh Alesbury and Isador Forman have been appointed assistants.

DR. WILMER KRUSEN, president of the Philadelphia College of Pharmacy and Science, delivered an address on "Early Philadelphia Medicine," before the City History Society of Philadelphia, at the Widener Branch of the Free Library of Philadelphia, Apr. 24.

ASHTON WILLS, of Somerset Township, Pa., pleaded guilty on Apr. 9, 1935, to practicing medicine without a license, and was sentenced to pay the costs of prosecution, a fine of \$300, and to serve 6 months in the Somerset County jail.

THE THIRTY-SIXTH ANNUAL MEETING of the American Proctologic Society will be held in Atlantic City, N. J., June 10 and 11, 1935, with headquarters at the Marlborough-Blenheim. For additional information, address the secretary, Dr. Frank G. Runyeon, 1361 Perkiomen Ave., Reading, Pa.

AT THE MEETING of the Philadelphia Neurological Society held Apr. 26, papers were read by: Dr. Leon Cornwall, New York (by invitation), "Experimental Production (?) of Multiple Sclerosis"; and Dr. Richard Brickner, New York (by invitation) "Treatment of Multiple Sclerosis."

THE AMERICAN NEISSERIAN MEDICAL SOCIETY has extended an invitation to all who are interested to attend their annual meeting, to be held on June 11, 1935, at the Claridge Hotel, Atlantic City, N. J. Information as to the program may be obtained from Dr. Oscar F. Cox, Jr., secretary, 475 Commonwealth Ave., Boston, Mass.

HERE IS A TRAGIC LESSON for parents: During the past 3½ years 538 deaths of diphtheria were registered in New York City. Of this number 22 occurred in children who had received protective injections of toxin-antitoxin or toxoid, and 516 who had not received any protective injections.—*N. Y. State J. M.*, Apr. 1, 1935.

THE PHILADELPHIA METABOLIC ASSOCIATION met in the College of Physicians the evening of Mar. 29. Dr. J. Norman Henry, director of public health, discussed "Public Health Aspects of Diabetes." Dr. Lewis Dublin, statistician for the Metropolitan Life Insurance Company, spoke on diabetes mellitus, its incidence and epidemiology, and its relationship to heredity and obesity.

THE THIRTEENTH ANNUAL MEETING of the Philadelphia Heart Association was held at the College of Physicians, Apr. 24. The following papers were read: "A Review of the Year's Work of the Philadelphia Heart Association," Dr. William D. Stroud, and "Play and Exercise in Heart Disease," Dr. Harlow Brooks, emeritus professor of clinical medicine, New York University and Bellevue Medical College.

AFTER A LAPSE OF SEVERAL YEARS the United States quarantine station at Reedy Island, Del., was reopened, Apr. 1, for inspection of vessels. Dr. Barton Brown, acting assistant surgeon, who has been stationed at the immigration station at Gloucester, N. J., is in charge under the direction of C. W. Vogel, medical director and officer in charge of the Marcus Hook, Pa., quarantine station.

UNIVERSITY OF PENNSYLVANIA MEDICAL ALUMNI SMOKER. During the coming convention of the American Medical Association in Atlantic City, the Medical Alumni of the University of Pennsylvania will hold a reunion and smoker on the evening of Wednesday, June 12, at the Hotel Claridge. Early registration of those expecting to attend is requested. Robert A. Kilduffe, M.D., Atlantic City Hospital, is chairman of the local committee.

IT HAS BEEN ANNOUNCED that \$200,000 will be spent on alterations to the Moses Taylor Hospital, Scranton. According to the plans, the connecting building in the rear of the administration section is to be razed and will be replaced by a new 3-story fire-proof building. Each

(Continued on page xiv.)

The Treatment of EARLY SYPHILIS

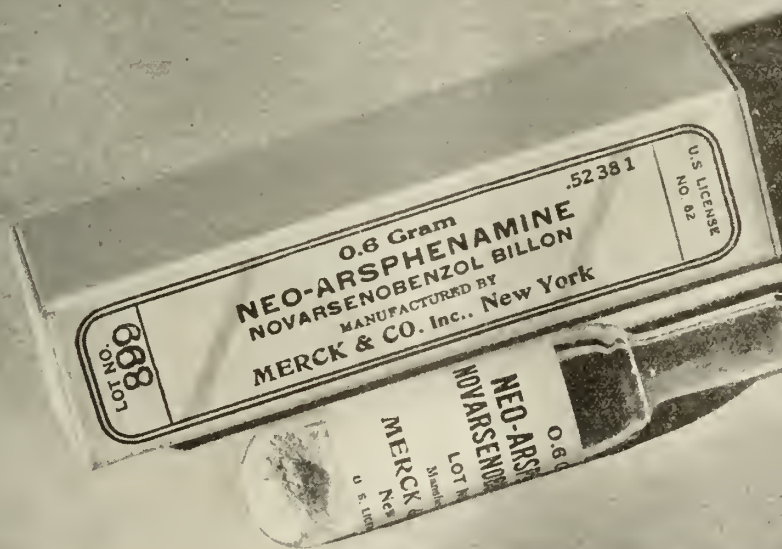
THE TREATMENT of early syphilis advocated to-day involves such basic principles as the use of an arsphenamine as the foundation of the treatment, the use of a heavy metal as an adjuvant (preferably bismuth intramuscularly), and the continuation of

treatment without a rest period for a period of one year after all symptoms and signs of the disease have disappeared.

These fundamentals have evolved from a painstaking study, by a group of university clinics in collaboration with the U. S. Public Health Service, of records covering a fifteen year period. Their report may be considered as the most authentic information available today relative to the satisfactory treatment of early syphilis. The method of treatment advocated is known as:—

● "The Continuous Method of Treatment"

This method, with the use of Neo-arsphenamine Merck, may be relied upon to produce satisfactory results.



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MEDICAL NEWS

(Continued from page 674.)

of the wings, now one-story high, will be converted into 2-story structures and will also be fireproof. Older units with frame interiors will be rebuilt so that every part of the building occupied by patients will be of the latest fireproof construction.

DR. ESTHER M. GREISHEIMER, associate professor of physiology at the University of Minnesota Medical School, was guest lecturer in physiology at the Woman's Medical College of Pennsylvania for the month of April, delivering a series of lectures on the physiology of the central nervous system. Dr. Evelyn M. Anderson, research fellow in physiology at McGill University, will be guest lecturer at the College during the month of May, and will deliver a series of lectures on the physiology of the endocrine system.

THE MEMBERS OF THE Obstetrical Society of Philadelphia and the New York and Washington Obstetrical Societies were the guests of the Boston Obstetrical Society at Boston, Apr. 12. Dr. Norris W. Vaux, president of the Philadelphia society, presided at the dinner meeting at which Dr. Henricus J. Stander, professor of obstetrics and gynecology, Cornell University Medical College, read a paper on "The Teaching of Obstetrics and Gynecology in the United States." The discussion was formally opened by Dr. Barton C. Hirst, of Philadelphia.

THE TOMARKIN FOUNDATION is organizing under the auspices of the University of Brussels its Seventh International Medical Postgraduate Congress, officially approved by the General Commissariat of the Government for the World Exhibition. This Congress dealing with diagnostic and therapeutic actualities will be held during the World Exhibition from Sept. 12 to 19, 1935, in the Faculty of Medicine of the University in Brussels and from Sept. 20 to Oct. 2 at Spa. For all particulars please apply to the secretary, Tomarkin Foundation, Faculty of Medicine, 97, rue aux Laines, Brussels, Belgium.

THE OFFICERS OF THE American Urological Association and its Western Branch Society cordially invite all physicians interested in urology to participate in the thirty-second national convention in San Francisco, June 24-28, 1935. The headquarters will be in the Palace Hotel. On June 26, Prof. Hugh Hampton Young, of Johns Hopkins University, will deliver the Ramón Guiteras Lecture on "The Abnormalities and Plastic Surgery of the Lower Genito-urinary Tract." June 24 has been set aside for the annual golf tournament, which will take place on picturesque links overlooking the Pacific Ocean, followed by a stag dinner. A banquet will be held on the evening of June 26 and a dinner dance on June 27.

THE ANNUAL WESTMORELAND COUNTY CLINIC DAY will be held at New Kensington, Pa., May 23. Speakers at the morning session in the Elk's Club will be Dr. Walter M. Bortz, Greensburg; Dr. R. H. Jeffreys, Uniontown; Dr. J. B. McMurray, Washington; Dr. H. B. Anderson, Johnstown; Dr. Geo. A. Holliday, Pittsburgh; and Dr. A. H. Colwell, Pittsburgh. In the afternoon Dr. Moses Behrend, Philadelphia, president of the State Society, will give an address, followed by presentation of cases by Dr. R. L. Haden, Cleveland, Ohio, and Dr. A. M. Shipley, Baltimore, Md. There will be a banquet at the Hill Crest Country Club at 6:30 (daylight saving time) with music, boxing, and wrestling. Those attending the luncheon at 12:15 will be the guests of the Citizens General Hospital.

IS SMOKING AN ETIOLOGIC FACTOR in peptic ulcer? Some have supposed so, but New York City figures reveal that during the past 10 years, during which the proportion of women smokers has undoubtedly in-

(Concluded on page xvi.)



THIS dependable brand of *unsweetened* evaporated milk is now *irradiated*—enriched in Vitamin D by the Steenbock Ultra Violet Ray process. In addition to the many other inherent qualities which make Wilson's Milk so reliable for baby feeding, you can now depend upon it to introduce a rich supply of Vitamin D in a baby's diet automatically. You will be pleased with the way your babies thrive when Wilson's *Irradiated* Evaporated Milk is used in your feeding formulas. All our statements about Wilson's Milk are accepted by the American Medical Association Committee on Foods—and we do not furnish feeding formulas to mothers. WILSON MILK COMPANY, Inc., Box 895, Indianapolis, Ind.

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MEDICAL NEWS

(Concluded from page xiv.)

creased, there was a decline in the mortality of peptic ulcer among females. Statistics of deaths from cancer of the buccal cavity, too, fail to show any increased mortality since smoking among women has become more prevalent. In studying peptic ulcer it is interesting to note that during the past 20 years there has been a definite decline in the death rate among females while the death rate in males has increased markedly.—*N. Y. State J. M.*, Apr. 1, 1935.

AN INTENSIVE DEMONSTRATION in the latest methods in the diagnosis and treatment of heart disease will be held again this year by the Philadelphia Heart Association, from May 21 to May 24 inclusive.

Pathologic exhibits, electrocardiographic exhibits, and exhibits of the latest apparatus used in diagnosing and treating heart disease will be shown in conjunction with this demonstration.

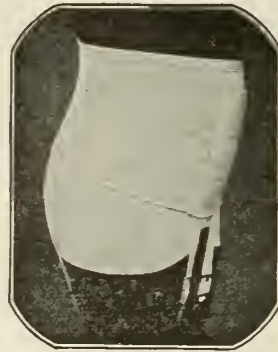
A registration fee of \$5.00 will be charged. Anyone wishing a program of this demonstration, or wishing to register, please notify Miss Helen E. Heikes, Philadelphia Heart Association, 311 S. Juniper St., Philadelphia, Pa.

THERE HAS BEEN FORMED in New York City an Interne Council, which publishes a paper called *The Interne*. Among its basic aims are the following: Improvement of educational, laboratory, and living facilities at the various New York hospitals; securing the passage of legislation providing for the insurance of internes injured, disabled, or dying in the course of duty; securing eventually, compensation for internes; to facilitate interhospital activities of a clinical and possibly of a social and recreational nature; to foster conferences, seminars, and other educational programs of primary interne interest; to establish a central interne organization which might effectively represent interne affairs, and so forth. Organized medicine should be proud to welcome its future leaders in this, their early endeavors. It is a step in the right direction.—*N. Y. State J. M.*, Apr. 1, 1935.

THE NEW UNITED STATES NAVAL HOSPITAL at League Island, Philadelphia, was dedicated Apr. 12. The new structure, constituting a \$3,200,000 investment, is of skyscraper type, consisting of 13 floors and affording accommodations for 650 patients. The following were the speakers: Rear Admiral William C. Watts, commandant of the Philadelphia Navy Yard; Congressman George P. Darrow, of Philadelphia, who deserves the greatest measure of credit for the erection of the hospital; Honorable Hampton L. Moore, mayor of Philadelphia; Director General Frank T. Hines, administrator of the Veterans' Administration; Colonel Vincent A. Carroll, national committeeman of the American Legion; Rear Admiral P. S. Rossiter, chief of the bureau of medicine and surgery of the United States Navy Medical Corps; Rear Admiral N. M. Smith, chief of the bureau of yards and docks for the Navy Civil Engineers Corps; Harry J. Crosson, regional manager of the Veterans' Administration in Philadelphia; Dr. J. Evans Scheehle, secretary of welfare of Pennsylvania, who spoke in the absence of Governor Earle. The hospital is officially commissioned in charge of Captain J. D. Manchester as medical officer in command. The youth of the country who are protesting wars were criticized by some of the speakers for their antagonistic attitude toward preparedness for a proper peace. Adult critics of the program to build up the service branches of the government came in for their share of censure. General Hines warned the veterans against making too great demands upon their government, and Colonel Vincent A. Carroll naturally took the opposite attitude.

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Book Reviews

From a reviewer we expect information and advice which will guide us safely and to our profit, warning us of the poor, the mediocre, the commonplace, and inviting our attention to merit.

GOULD'S MEDICAL DICTIONARY. George M. Gould, A.M., M.D. Edited by R. J. E. Scott, M.A., M.D., and C. V. Brownlow. Fourth revised edition. Philadelphia: P. Blakiston's Son & Co., Inc., 1012 Walnut Street.

This edition contains many new words as well as many corrected definitions which the advances in medicine and chemistry have made necessary. The spelling, pronunciation, etymology, and definitions of the words are given clearly and adequately.

Several worth-while tables are included, a new addition being a 4-page table of medical and chemical prefixes and suffixes.

A TEXTBOOK OF SURGERY, for students and physicians. W. Wayne Babcock, A.M., M.D., LL.D., F.A.C.S., professor of surgery and of clinical surgery in the Temple University; surgeon to the Temple University Hospital and to the Philadelphia General Hospital, etc. Second edition, rewritten. Philadelphia and London: W. B. Saunders Company, 1935. Cloth, \$10 net.

The second edition of this most excellent textbook on surgery has appeared in response to a great demand. This edition is completely revised and much new material is inserted. New sections have been added on the parathyroid glands, the sympathetic nervous system, the duodenum, the mesentery and omentum, the epiphyses, and the malacias of bone. All portions of the book have been brought up-to-date.

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(Signed) LESTER H. PERRY,
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State of Pennsylvania
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Subscribed to and sworn before me on this 17th day of April, 1935.

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No. 9

BLOOD STUDIES IN OTOLARYNGOLOGY*

WILLIAM V. MULLIN, M.D., CLEVELAND, OHIO

In this discussion of blood studies in otolaryngology there will be no attempt to present the matter from the viewpoint of the hematologist, but rather to show the benefit and aid that certain blood studies can give in the everyday practice of the specialty. The 2 paramount problems in the treatment of diseases of the ears, nose, and throat are hemorrhage and infection, and to a lesser degree, yet of considerable importance, the blood dyscrasias. Much has been said and written concerning methods of controlling hemorrhage, but far too little thought and study are given to its prevention.

As an approach to the discussion consideration should be given to the statements of 2 well-known hematologists. Russell L. Haden¹ has stated: "A routine blood count (red and white cell count, hemoglobin estimation, and differential count) is only a starting point for a more complete blood study and should be looked upon largely as a means of determining whether or not a complete blood study is indicated." G. Lovell Gulland² has said that he "looks forward to the time when the differential count will be more important than the auscultation of the heart, but that day will come in its fullness only when the knowledge to interpret such data properly is ours."

Epistaxis is a symptom that quite often brings the patient to the rhinologist before he seeks medical advice elsewhere. All too often in such instances an erosion or an open vessel is cauterized, or the nose is packed, or some blood coagulant is given, and the patient is allowed to go on his way when, instead of these temporizing procedures, complete blood studies should be made. Frequent or protracted nasal hemorrhage is always a sign of some general systemic dis-

turbance affecting blood-clotting or bleeding time, and all patients with this condition should have a complete physical examination. General treatment is indicated more often than local measures. The frequency of epistaxis in typhoid fever and influenza substantiates this view.

The records of 11 patients with nosebleed, including the results of physical examinations and blood studies, afford interesting information. In each instance the patient first presented himself to the nose and throat department. Only one had a normal coagulation time, and his bleeding was due to a local granulation in the nose. The other 10 had various dyscrasias affecting either their blood-clotting or bleeding time. Two of these patients had been taking a diet lacking in proteins, one had obstructive jaundice, one cirrhosis of the liver, one cirrhosis of the liver with oral sepsis, another oral sepsis, one had renal calculi with infective hydronephrosis, one showed a deficiency in the blood platelets, one had hematuria of unknown origin, and another was suffering from Hodgkin's disease.

Much has been written on the value of routine tests for bleeding and clotting time before operation. Others have discredited these examinations, branding them as useless. They do yield valuable information, although it is true that, if the clotting time is within normal limits, there is no assurance that the patient may not bleed freely either at the time of the operation or afterward. If the coagulation time is prolonged, however, this is a warning signal to defer operation until more complete blood studies have been made. The proper tests can reveal abnormalities in the clotting properties of the blood or the presence of blood deficiencies that predispose to bleeding.

Blood secured by piercing the skin is worthless for the determination of the coagulation

* Read before the Section on Eye, Ear, Nose, and Throat Diseases of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 3, 1934.

time, but if it is taken from a vein with a syringe as in the Lee-White method, the normal coagulation time can be placed at from 5 to 10 minutes. Any specimen that requires a longer time furnishes an index that additional blood studies are necessary.

The factors involved in blood coagulation include prothrombin, fibrinogen, antithrombin, blood platelets, and the degree of platelet lysis. The production of these substances is affected by numerous and complex influences. Fibrinogen is said to arise in the liver. It constitutes the potential clot structure and its transformation into soluble fibrin completes the clotting reaction. Heparin is another substance presumed by Howell to be formed normally in the tissues of the liver. Howell has extracted this agent from dogs' liver and has found that 1 mg. will prevent completely the coagulation of 40 c.c. of cats' blood. It apparently does not prevent the action of thrombin nor fibrinogen. He has found it in normal blood but has not found a greater quantity of this substance in the blood of hemophiliacs. In view of these theories regarding the origin of fibrinogen and heparin, it is easy to explain why liver damage or disease of the liver affects hemorrhage so markedly.

Biochemical and biophysical changes in the blood may take place very rapidly, and sometimes the stress and strain incident to worry over an operation may bring about an abnormal change in the clotting properties of the blood within a few hours.

I once performed a tonsillectomy upon a servant employed in my own household. According to the preoperative examination, the blood picture was entirely normal. The operation was performed at 2 o'clock. At 6 o'clock in the evening, while I was making rounds in the hospital, the nurse informed me that the patient had just started to bleed. Examination showed a hemorrhage from the entire surface of the left tonsillar fossa. A large sponge was placed in this fossa and the nurse asked to make gentle pressure. In a short time I was summoned because the patient was bleeding quite profusely. The blood was oozing at a rapid rate from the right tonsillar fossa which had been entirely dry 10 minutes previously. It was midnight before the hemorrhage from both fossae was controlled, which was accomplished more because of exsanguination than from the measures instituted. This happened in the days before blood transfusions were available. It seems likely that the hemorrhage was occasioned by some disturbance in the secretion of the liver constituents (fibrinogen or heparin), which probably was brought about by an excessive emotional reaction.

Prolonged malnutrition in children predisposes to a tendency to hemorrhage, and prolonged loss of blood results in a hemorrhagic state with reduction in the concentration of the blood-clotting constituents. It is always important, therefore, that hemorrhage be arrested as soon as possible. There is no question that blood clotting shows a wide fluctuation during different periods of the year. This has been definitely proved by blood studies upon hemophiliacs; in the same individual the clotting time may be within normal limits at one time, and there may be a hemorrhagic state with greatly delayed clotting at another period. In fact, this variability in clotting time is said to be characteristic of hemophilia and should always be kept in mind.

In postoperative and postfebrile states the blood platelets may be greatly affected, and are said not to return to normal until the eighth or tenth day after the fever subsides. After splenectomy the blood platelets are doubled or tripled in number and are greatly increased in size as the following case will illustrate.

CASE REPORT

The patient, a man, age 48, presented himself for treatment in the ear, nose, and throat department on May 19, 1934, with the complaint of frequent nosebleeds. He had had no surgical operations but stated that he had bled very severely following the extraction of teeth. He also said that he bruised very easily. There was no history of bleeding before age 17. There was an erosion on Little's area of the septum which was his bleeding point, and he had oral sepsis. He was referred for a complete physical examination and blood studies. The red blood cells numbered 3,160,000 with moderate anisocytosis; the volume index was .90 with moderate poikilocytosis; the percentage of reticulocytes was less than 1.0; the packed red cells were 57 per cent of normal, with 26 per cent per hundred cubic centimeters; the hemoglobin was 49 per cent, or 7.5 grams per cent; the color index was .77; the saturation index, 86; the leukocyte count including the differential count was normal; the blood platelets numbered 50,000, with very few in the stained preparation; there was no clot retraction, and the coagulation time was 11 minutes. The diagnosis was thrombocytopenia. A splenectomy was advised and was performed on May 31, 1934. After the operation there was complete cessation of nasal bleeding. Seven days after splenectomy the blood platelets increased to as high as 380,000 and 12 days after the operation numbered 160,000. There has been no recurrence of hemorrhagic symptoms.

Blood platelets are held by some to be formed from leukocytes, but this is not definitely established. Bunting believes that under certain abnormal conditions, for example, in influenza, active production of platelets from leukocytes may occur. Functionally the thrombocytes are essential to the coagulation of the blood and the stopping of hemorrhage. In this their action is partly mechanical through their ready clumping, but

more important is the contribution by the platelets of some substances necessary to the process of coagulation.

Mills has done valuable work on the effect of a high protein diet and its influence on blood clotting, and Bancroft, Kugelmass, and Brown have made practical application of this in a surgical way in determining the etiologic factors of thrombosis and embolism. Mills demonstrated that a carbohydrate and fat diet will raise the basal metabolic rate, but will not increase clotting, whereas a protein diet not only raises the metabolic rate, but definitely increases the clotting properties of the blood. He attributes this to some unknown factor connected possibly with the amino-acids derived from protein metabolism. The amino-acids form the end products of protein digestion and are absorbed from the intestine into the portal system and are conveyed to the liver. Mills therefore concludes that a high protein diet with feedings from 3 to 4 hours should be administered to patients exhibiting a hemorrhagic tendency. The following is an illustrative case.

The youthful patient had a tendency to overweight. In order to satisfy his boyish appetite, he consumed large quantities of lettuce and took an excessive amount of fruit juices, but almost no proteins. He had almost daily nosebleeds; in fact, these were so severe that he had to be sent home from boarding school. His clotting time was greatly prolonged. He was sent to the medical department where blood studies were made. His diet was properly adjusted, and he has had no further annoyance from nosebleeds.

The differential white blood cell count gives valuable information both as to diagnosis and prognosis if proper interpretation of the findings is made. The influences that bring about an increase or decrease of the leukocytes must be taken into consideration before practical application of the results can be determined. The surgical opinion often is based on one differential count. It is a common experience to be called in consultation to see a patient who has been ill a week or more, and to find that only one differential count has been made. This is really not of diagnostic nor practical value. However, a daily differential count (including a careful correlation of the leukocyte count with the total red blood cell count and the amount of hemoglobin), made with blood taken at the same hour each day, and by the same technician, yields information of inestimable value.

The differential count in infection, as pointed out by Arneth years ago, shows that immature white blood cells increase in number, while the older cells show a corresponding decrease. Such

changes are constant and vary with the severity of the infection. The number of immature forms becomes greater as the infection gets worse, and less with recovery and convalescence. The importance of this observation has not changed, but it is necessary to take cognizance of the fact that hydration, dehydration, post-operative hemorrhage, major surgical operations, and many other factors all influence the leukocyte count. Several years ago Dr. G. C. Large and I made application of the filament-nonfilament count in acute infections and found that it had definite diagnostic and prognostic value. Others prefer to use the von Schilling count, which yields approximately the same information. In making differential counts in acute infections special attention must always be paid to the immature forms.

About a year ago I performed a submucous resection upon a young woman whose blood findings were normal before operation. She made an uneventful postoperative recovery while in the hospital and was discharged to return to her home in a city about 75 miles distant. On returning home she received some upsetting news that produced a very nervous state, because of which she did not take proper nourishment, and after 10 days had several severe and quite alarming nasal hemorrhages. She was taken to the local hospital for packing and treatment, and because the leukocyte count was 18,000 she was told repeatedly that there must be some infection. Such an erroneous opinion might have been avoided had the doctor known that loss of blood will produce a leukocytosis.

The eosinophil count is of very practical value to the otolaryngologist as an aid in the diagnosis of an allergic state. The eosinophil has some function related to foreign protein, but what this is I have been unable to find out and cannot explain. It is true that pertussis, trichinosis, and other diseases produce eosinophilia, but allergy is by far the most common and constant cause of this blood finding. An increase of the eosinophils in the blood is of more diagnostic value for our purposes than finding them in the nasal secretions. They can be found in certain inflamed tissues, such as the appendix or mesentery, but if they are observed in the blood stream, they must be caused by some constitutional reaction, and that is what allergy is. Hence if the history and clinical examination produce a suspicion that allergic sensitivity is responsible for the nasal symptoms, even though the skin reactions be doubtful or negative, the finding of a decided eosinophilia furnishes definite indication for retesting, or for a check on the allergens used.

The sedimentation test depends upon the rate of the speed of separation of the erythrocytes from plasma in the blood, to which an anticoagulant has been added. Hematologists have found that the sedimentation rate is increased in all conditions in which there is a breaking down of tissue or in which foreign protein is taken into the system other than by the gastro-intestinal tract. Therefore it is applicable in all cases with prolonged infections, malignant neoplasms, extensive fractures, and operative wounds, and in wasting diseases. Its principal application in otolaryngology is that of helping to evaluate the influences of a focal infection in such conditions as rheumatism after the acute signs of fever and leukocytosis have subsided. It is also useful as an aid in evaluating the influence of infection in cases of allergic disease.

Leukopenia is another abnormality in the blood with which we need to be concerned. Unfortunately we seem to know little about it. It is rather paradoxical that acute infections usually produce an increase in the number of leukocytes, and yet under other conditions they may cause a leukopenia. Because of the angina in the pharynx, the laryngologist may be the first to see the patient whose bone-marrow function is so depressed that the granular leukocytes are markedly diminished. So much has been written on the subject of agranulocytopenia recently that it shall not be discussed in detail in this paper. Drugs as an etiologic factor represent only a part of the picture, for there must be an individual idiosyncrasy which predisposes to such a state in the bone marrow. At the very first intimation of this disease, the laryngologist should at once summon the aid of the hematologist. Treatment so far has been rather unsatisfactory, but Doan is correct in his advice to find out what is necessary to bring about proper maturation and deliverance of normal cells.

Recently I have reviewed approximately 130 cases of leukemia to determine what, if any, were the otolaryngeal symptoms involved. In only a small number of the cases was anything elicited in the general history and physical examination that would require examination in the department of otolaryngology. Bilateral eighth-nerve deafness was present in just a few cases, but hardly often enough to be more than a matter of coincidence. One boy, age 17, had a complete ablation of both cochlear and vestibular fibers on both sides, which was apparently associated with the onset of the blood disease.

In 2 instances patients have been referred to me for an opinion as to whether sinus infection could account for lassitude and daily fever. Both were proved to have undulant fever. I

also recalled the case of a young man who had formerly lived in the South, on whom I had performed a mastoid operation. The bone was necrotic over the lateral sinus and the sinus was exposed over a considerable area. Several days after operation he began to have chills and fever, but the picture did not seem characteristic of sinus thrombosis. Blood smears revealed the *Plasmodium malariae*, which had remained dormant until the acute infection and operation had caused an exacerbation of symptoms.

Blood transfusion has become a very necessary adjunct in all types of surgical treatment. It has 2 broad applications—to combat anemia and to fortify the patient against infection. The possibility of hemorrhage is so great in any case in which an operation, no matter how slight, is done that every patient on entering the hospital should have a blood grouping so that a suitable donor can be obtained without delay in case of an emergency. This may be a life-saving measure, for all too often precious moments are lost after the emergency exists.

Small and repeated blood transfusions are the very best treatment for blood-stream infections. Furthermore, it is much wiser to give the blood transfusion before operation than it is to wait to see whether or not it might be necessary. No surgical operation should be performed if the hemoglobin is below 50 per cent.

Reference to the use of calcium in hemorrhage has been omitted because I have never been convinced one way or the other of its effectiveness. Certainly there are no manifest contraindications to its use.

Attention has been called to certain studies of the blood that are of value in the diagnosis of diseases of the ears, nose, and throat, and also to some blood dyscrasias in which the nasal symptoms may be the most prominent and hence may lead the patient to consult the otolaryngologist first. The important point in every case of nasal hemorrhage is to determine the cause of the hemorrhage rather than to apply local measures with no thought or consideration of the constitutional factors which may be causing the abnormal bleeding. Instead of postoperative hemorrhage being regarded as inevitable in a certain proportion of cases, more time and thought should be devoted to its prevention. If careful studies of the blood are made before operation, if preliminary measures are taken to fortify the patient against bleeding, and if the technic of the operation is faultless, the incidence of postoperative hemorrhage will be reduced to practically naught.

The technic of a simple blood count is not beyond the reach of any physician, no matter how

busy he may be nor how long he has been out of medical school. I sometimes wish that I were situated where the services of a technician and of a hematologist were not so easily available, for much can be learned by personally making the preliminary blood studies. The blood is the vital fluid of the body and certainly can reveal many hidden secrets. The more complex studies are far beyond the reach of the average practi-

tioner, but he should at least, by preliminary tests, be able to judge when the patient should be referred to the hematologist for a complete examination.

Cleveland Clinic.

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MEDICAL MANAGEMENT OF HEMORRHAGIC STATES IN CHILDHOOD*

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Hemorrhagic states are unitary and unique. Their manifestations are as individual as the particular patient, as varied as the determining disease, and as widespread as the offended organs and tissues. And yet they show few symptoms and fewer signs ever to be adequate for diagnostic differentiation without further scientific study. The more accustomed one is to seeking similarities in the diagnosis of disease, the more one is baffled in attempts at patterning pictures of hemorrhagic diversities. The hemorrhagic state is a many dimensional portrait rather than a 2-dimensional textbook picture. Confronted with a hemorrhagic problem, one must confuse neither the site nor the severity of bleeding with a specific hemorrhagic state. In no field of medicine is clinical judgment more exacting than in the interpretation of hematologic observations. Effective control of hemorrhagic states—potential or active—depends on simple therapeutic measures, once diagnostic specificity has been determined.

Hematologic studies of children presenting hemorrhagic symptoms have greatly minimized the number of true hemorrhagic diseases. In a sequential series of 5000 sick children observed in 3 hospitals in the city, 7 per cent showed hemorrhagic symptomatology. But of the 325 cases involving bleeding symptoms, only 95 proved to be veritable hemorrhagic diseases with abnormal deviations in the blood-clotting constituents. Although these children showed more marked and more persistent bleeding than those with non-hemorrhagic diseases, the sites of bleeding were no different. Localized hemorrhages were more frequently the result of systemic disease than of local injury, and marked multiple hemorrhages usually revealed active hemorrhagic disease. Spontaneous bleeding was more prevalent than

the traumatic and more difficult to control. In newborn infants it was the consequence of non-hemorrhagic disease, whereas in children spontaneous bleeding was precipitated by active hemorrhagic disease. Bleeding symptoms predominated among boys with true hemorrhagic diseases and among girls with nonhemorrhagic diseases, and a family history of a bleeding tendency was obtained in both groups. The majority of hemorrhagic problems were observed in older children, but control of hemorrhages was more effectively obtained in younger children in whom mild bleeding manifestations resulted in early hematologic diagnosis. And yet recovery from very severe injury to the reticulo-endothelial system has been witnessed at all ages. The more hemorrhagic problems are studied, the more atypical and transitional they behave in comparison with classic descriptions. Hemorrhagic states ever require individual study for diagnostic certainty.

ESSENTIAL DIAGNOSTIC PROCEDURES

Hemorrhagic symptomatology rarely reveals the clinical diagnosis. Methods have been devised for the study of the actual changes in the blood and the vessels to determine the mechanism of these disturbances. Changes in the behavior of blood and in the concentration of its constituents are the result of essential hemorrhagic diseases, whereas changes in the functional behavior and structural integrity of the blood vessels are the result of nonhemorrhagic diseases. In the former the defect determining the hemorrhagic disease is actually within the blood, reflecting, of course, abnormalities in the reticulo-endothelial system. In the latter the defect is in the vascular wall without any disturbance in the blood.

Whatever the clinical impression of the type of hemorrhagic disturbance, every child requires

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a complete blood study including the hemoglobin content, the red cell, the white cell, and the differential count. This rules out at once the presence of leukemic processes, bone-marrow and splenic diseases. The determination of the clotting time, the clot retraction time, the bleeding time, the platelet count, and the degree of platelet stability all indicate the type of change involved in the blood. If the results of these procedures are normal, it is further necessary to determine the content of the blood-clotting constituents, fibrinogen, prothrombin, and antithrombin. Finally the tourniquet test is applied, the capillary nail beds are examined microscopically, and the fluid output is measured to determine the presence of vascular dysfunction. No single procedure is ever diagnostic of hemorrhagic disease, for it takes the correlation of all these determinations with the family history, its hemorrhagic tendencies, the child's previous hemorrhagic history, and the present clinical condition to establish the diagnosis.

A NEW CLASSIFICATION

Modern diagnostic procedures correlated with the clinical manifestations of hemorrhagic disturbances necessarily lead to a well-defined classification. The disease entities that produce changes in blood-clotting substances constitute one group of hemorrhagic diseases, whereas those that produce changes in the vascular endothelium constitute another group of so-called nonhemorrhagic diseases. Although vascular injury is present in all hemorrhages, it is not the determining factor in the disease when the blood constituents are actually altered. Every hemorrhagic state involves a controlling factor in the blood or in the vascular endothelium as causative of the disease. In both blood-clotting and vascular dysfunctions there are acquired and hereditary diseases. If the prothrombin is deficient in the newborn, hemorrhagic disease results; if the platelets are diminished, there is thrombocytopenic purpura; if fibrinogen is deficient, hemorrhagic diseases of the liver result; if any of these blood-clotting constituents are either defective or deficient from infancy, the respective familial diseases appear.

On the other hand, if the vascular endothelium suffers from malnutrition, scurvy or marasmus with normal blood pictures in the clotting constituents results. Likewise, if the capillaries are injured by allergens, allergic purpura is the outcome. Again, vascular injury may be produced by chronic infections and chemical poisons with resultant hemorrhagic symptoms. Besides these types of vascular injury one may inherit ac-

tual defectiveness in the capillary structures and thus suffer from a familial disease. Each of these diseases originating in the blood or in the capillaries is amenable to control to the extent that the deficient or injured factor is replaced or regenerated therapeutically. The control of the essential hemorrhagic disease or the nonhemorrhagic diseases depends on the proper classification of the disturbance. Once the mechanism of the bleeding symptoms is understood, the therapy indicated either supplies deficient blood-clotting constituents or decreases vascular permeability. The chronicity of hemorrhagic disturbances necessitates continuous clinical supervision in the prevention of recurrent hemorrhagic episodes.

ACUTE HYPOTHROMBINEMIA

The tendency of certain mothers to give birth to babies with hemorrhagic disease (which I shall designate as acute hypothrombinemia) is not uncommon. It may become manifest with the first-born or begin to appear suddenly in subsequent siblings. Although the occurrence of true hemorrhagic disease of the newborn is much less prevalent in the last few years than ever before, the prenatal tendency of giving birth to such babies still persists. The recognition and treatment of hemorrhagic disease of the newborn are so simple as to have made its occurrence of no great concern in prognosis. But those newborn infants with hemorrhagic disease from mothers who have transmitted the condition periodically are least responsive to postnatal therapy. Diagnostic and therapeutic approaches can now be made through prenatal study.

Examination of the mother's blood during pregnancy reveals a blood picture characteristic of hemorrhagic disease in the newborn. We have been able to make such a correlation by determining the blood content in the essential clotting constituents, and have observed in the newborn with true melena that the dominant deficiency in the blood is a diminution in its prothrombin content. Occasionally the fibrinogen content may be diminished or the antithrombin slightly increased. But the determining factor in the causation of the clinical picture of hemorrhagic disease in the newborn is a diminution in the prothrombin level of the blood. This deficiency in the developing fetal blood is apparently the reflection of the maternal blood with which it is always in equilibrium. This type of congenital predisposition of a hemorrhagic tendency may thus be predicted by examination of

the maternal blood whenever there has been previous evidence of hemorrhagic disease in the newborn.

Proof of the prenatal prevention of hemorrhagic disease in the making is afforded by a carefully controlled human experiment. A mother had given birth to 4 successive newborn infants with severe hemorrhagic disease. She was observed by the same obstetrician in the same hospital and necropsies of these newborn were made by the same pathologist. We have previously reported the recognition of potential hemorrhagic disease during her fifth pregnancy, and were able to prevent the development of hemorrhagic disease by a high protein diet during the prenatal period. The fifth newborn was normal and has reached age 6 without ever having manifested the slightest hemorrhagic symptomatology. The sixth pregnancy was characterized by a similar hemorrhagic tendency as revealed by biochemical study of the maternal blood, but the mother refused nutritional therapy and she was not coerced in order to obtain a control newborn without prenatal supervision. This sixth newborn showed severe hemorrhagic disease and died of uncontrollable hemorrhage. During her seventh pregnancy we proceeded with nutritional therapy exactly as during her fifth pregnancy, her blood having shown similar hemorrhagic tendency. The seventh newborn was perfectly normal and free from any semblance of hemorrhagic symptomatology.

CHRONIC HYPOTHROMBINEMIA

A bleeding tendency is not infrequently observed as a persistent manifestation of apparently well children. They are undernourished for their body build and are not derived from hemophilic families. Usually the bleeding symptoms are trivial and are presented only as a complaint incidental to an irrelevant acute illness. Epistaxis and easy bruising are outstanding symptoms, although other bleeding disturbances may occur. Physical examination is usually negative and clotting time prolonged or even normal, but determination of the clotting constituents reveals a decreased content of prothrombin or fibrinogen content of the blood. The antithrombin concentration is usually increased, but the platelets are normal in both quality and quantity. I have observed no evidence that the vascular endothelium is at all affected, as judged from the tourniquet test and the microscopic examination of the capillary nail beds.

Such benign bleeding manifestations are evidences of nutritional deficiency. The outstanding factor common to all is the syndrome hypo-

thrombinemia. Both prothrombin and fibrinogen are derived from the liver. Their decrease in these cases is not a result of impaired liver function, but rather the consequence of protein deficiency. Prothrombin is a protein substance which has been observed to increase in the blood following high protein diets. A further consequence is a subsequent diminution of the bleeding symptoms. The associated anemia in these undernourished children is unrelated to the bleeding symptomatology. The anemia observed is a result of nutritional deficiency.

The prevalent notion that hemorrhage follows anemia is unfounded. Bleeding in acute or chronic anemia is not observed even when the hemoglobin is as low as 10 per cent and the red blood cells drop to 1,000,000. Never does hemorrhage occur in severe chlorosis or in any of the anemias unless there is bone-marrow injury. Such is not the case in these children with mild recurrent bleeding following trauma. Furthermore, there is no evidence of hemorrhage in the severest hydremias. The blood proteins are reduced to one-third their normal level, which produces no disturbance in the nutrition of the vascular endothelium. The basis for the hemorrhagic tendency in the cases here presented is a diminished prothrombin or fibrinogen content of the blood corrected within 2 weeks by the administration of a high protein diet. I have observed hypothrombinemia in a group of boys who were referred to me as possible hemophilic patients. Thus has the "clotting diet" become effective in the control of a chronic hemorrhagic condition confused with hereditary hemophilia.

THROMBOCYTOPENIC PURPURA

Purpura is the most universal of hemorrhagic symptoms. The patches may characterize a well-defined disease entity of the reticulo-endothelial system or be a symptomatic manifestation of bone-marrow diseases, splenic diseases, leukemic processes, infectious invasions, chemical injuries, or allergic offenses. The essential purpuras resulting from reticulo-endothelial disease are particularly amenable to treatment once the diagnosis has been determined and their mechanism mastered. Essential thrombocytopenic purpura is precipitated abruptly with bleeding from the mucous membranes and into the skin as purpuric eruptions.

The blood shows a marked diminution of the platelets, leukocytosis, a posthemorrhagic anemia with evidence of erythropoiesis, normal or slightly delayed clotting time, prolonged bleeding time, a nonretractile clot, and a marked capillary resistance test. Although this blood pic-

ture is characteristic, the clinical manifestations are variant so far as they have a specific bearing on the purpuric mechanisms. It is in the interpretation of the physical observations that the type of essential purpura may be determined as a basis for effective treatment. The following cases are illustrative of my approach in the control of purpuric disturbances.

Correcting Nutritional Deficiency:

M., a boy, developed petechiae over the gums and palate, and bled from a loosened tooth at age 7. Recurrent nosebleeds and purpuric spots throughout the body continued for more than a year. Periodic examination of his blood picture by several physicians confirmed the diagnosis of thrombocytopenic purpura. He came under my observation at age 8, when I found the nutritional history most significant. A markedly allergic boy with chronic eczema, he was quantitatively deprived of protein and fat. His blood picture showed a hemoglobin of 65 per cent; red blood cells, 3,800,000; white blood cells, 12,000; platelets, 40,000; bleeding time, 16 minutes; clotting time, 3 minutes. Medical consensus was for splenectomy as a last resort. A high fat and protein diet alone brought the platelets from a further drop of 20,000 to 400,000, with complete disappearance of purpura since 1927.

Typical thrombocytopenic purpura was cured in this boy by nutritional therapy. The basis for this approach was a careful study of the nutritional history as part of a clinical picture. Dietary fat deficiency correlated with the lipid nature of platelets led to this treatment. I have found high protein and high fat diets in the so-called clotting dietary effective under similar conditions of dietary fat deficiency. One boy, age 4, developed a mild thrombocytopenic purpura, which persisted for 6 months, when a clotting dietary cured the condition without further treatment. He was deprived of fat for more than 2 years because of a chronic celiac condition. Another child, similarly treated, developed purpura in the course of cyclic vomiting. The replacement of fat in the dietary brought prompt recovery from purpura.

Prolonged nutritional deprivation of the gross constituents in the dietary such as protein and fat does not always produce deficiency disease. Much of the symptomatology resulting from one-sided dietaries, therapeutic or habitual, must be promptly corrected once hemorrhagic manifestations appear. Not infrequently such simple dietary procedures alleviate apparently alarming conditions.

Eliminating Infectious Foci:

D. T., a girl, age 6, suddenly developed nosebleeds, hematuria, and petechiae over the extremities following a severe infection of the upper respiratory tract. The child was undernourished for her body build; the tonsils were diseased; the spleen was 2 cm. below the

costal border. Roentgen examination of the sinuses was negative. Examination of the blood revealed hemoglobin, 50 per cent; red blood cells, 3,400,000; platelets, 55,000; clot retraction, delayed; tourniquet test, positive; bleeding time, 18 minutes; clotting time, 3 minutes. Repeated transfusions and subsequent tonsillectomy cured the purpura. Although the blood picture became normal and the number of platelets rose to 200,000, the tourniquet test persisted positive and the child developed black and blue spots following trauma.

Infection not infrequently suppresses bone-marrow activity or more usually injures capillary endothelium. This case is illustrative of the destructive effect of the streptococcus toxin on the megakaryocytes as well as of vascular injury. The only obvious related primary focus was the diseased tonsils. Their removal cured the condition. But the residuum of easy bruising indicates that only part of the infectious focus was eliminated. Once systematic manifestations of an obvious infection appear, there result simultaneous multiple foci, difficult if not impossible to eliminate. One is thus confronted with loci rather than foci of infection to be eliminated in the treatment of purpura. But the early establishment of causative relationship of such foci should lead to their prompt eradication if control of the purpura is to be the consequence.

W., a girl, age 10, first developed purpuric spots over the left knee only to be followed by profuse crops throughout the entire body on the following day. Then there were profuse nosebleeds, bloody vomitus, confluent facial hematomas, tarry stools, and vaginal bleeding. The diagnosis of acute thrombocytopenic purpura was confirmed by several attending physicians. Repeated manifestations recurred following short remissions for more than a year. Then the child came under my observation. Examination revealed hemoglobin, 75 per cent; red blood cells, 4,000,000; white blood cells, 12,200; polymorphonuclear cells, 70 per cent; platelets, 60,000; bleeding time, 18 minutes; clotting time, 3 minutes; tourniquet test, positive; clot retraction, deficient. The child showed clinical and roentgenographic evidences of chronic sinusitis. She was promptly immunized against the hemolytic streptococcus obtained from the sinus washings. The child has been free from purpura for more than a year.

Infectious etiology in purpura is widespread. It becomes of determining significance in the treatment of purpura. If the infection is self-limited, all forms of therapy directed at the symptomatic purpura will be of transient avail until the infectious process has passed. Then residual foci must be eliminated if chronic purpura is to be prevented. But if the infectious invasion is nonapparent in the face of dramatic purpuric bleeding concentrated effort must be directed towards its isolation. Then and only then can specific therapy against that infection halt hemorrhagic occurrences.

I have studied a child who was admitted with precipitate purpura following several months of bleeding from the gums. The blood picture was characteristic of thrombocytopenic purpura with platelets to 40,000. But the purpura did not disappear until specific systemic therapy was administered against the causative Vincent's infection. I have seen thrombocytopenic purpura complicating pneumonia in an infant, age 6 months. There were severe hemorrhagic symptoms, marked anemia, a platelet count varying between 60,000 and 90,000, and bleeding time from 10 minutes to one hour. The purpuric picture persisted for one month simultaneously with otitis media as a focus despite recovery from the pneumonic process. Repeated transfusions with careful supervision of the offending otitis media eliminated the purpura.

Regulating Ovarian Function:

T. S., a girl, age 13, suddenly developed purpuric spots over the extremities. The onset of the bleeding symptoms was simultaneous with that of the first menstruation at 12½ years. Then there was not only an excessive loss of blood but bleeding gums and easy bruising as well, which recurred with each menstruation. Examination revealed hemoglobin, 65 per cent; red blood cells, 4,000,000; white blood cells, 9,200; polymorphonuclear cells, 68 per cent; lymphocytes, 20 per cent; platelets, 96,000; bleeding time, 10 minutes; clotting time, 12 minutes. Treatment with active ovarian extract gradually diminished the recurrence of severe menstrual purpura, so that all hemorrhagic symptoms were finally eliminated by the fifth month.

Ovarian dysfunction not infrequently accounts for the genesis of thrombopenia. Such a relationship is very striking in the clinical cases thus far observed in that purpura recurs with each menstrual cycle. The mechanism of the hormone effect on suppression of bone marrow is unknown. But the diminution of platelets during menstruation, the increased capillary permeability with ovarian deficiency, the preponderance of thrombopenia in females are facts in favor of the administration of ovarian therapy in such cases.

Indications for Splenectomy:

J. W., a boy, age 15, suddenly collapsed, bleeding for the first time from the nose, jaws, and pharynx. Then petechiae appeared over the mucous membranes and crops of purpuric spots over the chest, pelvis, and extremities. The physical examination showed nutritional dystrophy, moderate lymphadenitis, and an enlarged spleen. The blood picture showed a hemoglobin of 40 per cent; red blood cells, 2,500,000; white blood cells, 3,200; polymorphonuclear cells, 24 per cent; lymphocytes, 70 per cent; reticulocytes, 0.2 per cent; platelets, 25,000; clotting time, 8 minutes; bleeding time, 18 minutes; clot retraction, zero; the tourniquet test was positive. Hemorrhage became uncontrollable and transfusions were of little avail. Although the medical diag-

nosis was aplastic anemia, the surgical consensus of opinion was for splenectomy. The blood picture revealed a symptomatic cytopenia associated with marked reduction in the white blood cells and granulocytes as well as with an absence of all signs of regeneration of hemoglobin and the red cells. Besides, there was no evidence of increased destruction of red cells in stained smears and no fragmentation of red cells, and the icteric index was low.

Splenectomy is not a specific in the control of hemorrhage. Its effectiveness is limited to essential thrombocytopenic purpura and several other diseases with similar mechanism wherein primary splenic disease affects bone-marrow function. This necessarily excludes primary leukemic processes and bone-marrow diseases. Even in the limited number of these cases in which splenectomy is indicated, it is as yet not altogether possible to determine preoperatively in which this operation is the procedure of choice. The case cited is illustrative of a condition in which splenectomy should not be performed. Surgical specificity is life-saving in emergencies, but misapplied operative intervention interferes with the prognosis and with progress. Splenectomy is contraindicated if the blood picture suggests a deficient production of blood elements other than the platelets. Therapeutic splenectomy is out of the question if the hemoglobin and red blood cells show more marked reductions than simple hemorrhage would produce, if there is a marked leukopenia, particularly in the granulocytes, and, finally, if in the presence of these there is active hematopoiesis. Mere reduction in platelets is never an indication for splenectomy. Every medical effort must be made for a complete correlation of all the blood observations with the clinical picture before yielding to splenectomy.

M. T., a girl, age 4, showed recurrent purpuric spots over the face and chest for 2 years. With each crop there was simultaneous bleeding from the gums, nose, and throat. A loosened tooth bled continuously for 2 days, requiring hospitalization. The physical examination was negative and even the spleen was not palpable. Examination revealed hemoglobin, 60 per cent; red blood cells, 3,000,000; white blood cells, 12,000; platelets, 30,000; bleeding time, 15 minutes; clotting time, 3 minutes; clot retraction, zero; tourniquet test, positive. Splenectomy was performed following repeated transfusions. All hemorrhages stopped and within 24 hours the number of platelets rose to 200,000. One week after the operation the platelets were 350,000; the second week, 500,000; the third week, 700,000, and the blood picture became normal.

Such is the intermittent course common to chronic thrombocytopenic purpura. Remissions may last a few weeks or continue for months or even years with the platelets at low levels. When they fluctuate about the danger zone, bleeding is

imminent. With the purpuric process continuous, the blood picture is abnormal even though the clinical manifestations are not always apparent. When bleeding does occur, the blood picture frequently shows a relative lymphocytosis, which may be confused with lymphatic leukemia. A preponderance of polymorphonuclear cells in purpura is indeed the more favorable index of bone-marrow activity.

Treatment is directed at methods of raising the platelet content of the blood. Transfusions arrest bleeding not only because they contribute tremendous numbers of platelets but particularly because they stimulate bone-marrow activity. Mere addition of platelets is transient because of their 4-day duration. Caution must be exercised in the transfusion of purpuric children because of their great susceptibility to shock of an already injured reticulo-endothelial mechanism. Therefore, accurate typing and matching must not be foregone, even in emergency transfusion. Under such circumstances it is preferable to tide the patient over with intramuscular blood in the interim required to select a suitable donor. Even nonspecific protein therapy is effective in the early stages of the disease in that it induces marked rises in platelets and decreases capillary permeability.

But platelet reduction in purpura is not altogether responsible for bleeding. I have seen extreme thrombopenia without hemorrhage as well as the converse condition, indicating effect on the capillary walls as well as on the platelet mechanism. Therefore it is necessary in the treatment of purpuric bleeding not only to increase the platelet level of the blood but to decrease the capillary permeability as well. This may be accomplished by the intravenous administration of from 10 to 25 c.c. of 10 per cent calcium gluconate. This procedure may be reinforced by the oral administration of calcium salts. Local bleeding from mucous membranes may be arrested by applying dressings of a proprietary synthetic vasoconstrictor, a stable intermediate of epinephrine. Thromboplastic agents are quite ineffective locally and systemically.

But the chronicity of essential purpura may be cured by splenectomy. It is safe when properly timed and effective when indications are clear-cut. Chronic cases may show a persistent mild leukopenia, indicating some exhaustion of the bone marrow as well as anemia resulting from the loss of blood. Both of these conditions are indications for splenectomy provided there is evidence of active hematopoiesis. If bleeding is controlled by medical measures and there is a persistent leukocytosis, the bone marrow is reacting and so it is preferable to continue to

control the problem without splenectomy. In acute purpura, splenectomy may be a life-saving measure provided preliminary large transfusions are given daily to bring the hemoglobin and the red blood cells to a favorable level. In such acute emergencies the platelet level is no factor in surgical prognosis. Splenectomy is the procedure of choice when transfusions fail to arrest bleeding in an afebrile child whose blood shows active regeneration and whose general condition after transfusion indicates fair surgical risk. Purpuric bleeding is promptly arrested after ligation of the splenic vein, and no bleeding continues during or after splenectomy. But every child who leaves the operating room in good condition requires continuous medical supervision. Not infrequently shock suddenly follows splenectomy. It may be immediate or delayed; hence a donor should be on hand for an emergency transfusion to combat postoperative collapse.

Clinical cure is not always complete following splenectomy. The more closely the blood picture conforms to the characteristics of the essential type of thrombocytopenic purpura, the better the end result. The spleen in this type of purpura inhibits the production of platelets by the bone marrow. More specifically deranged splenic function is the result of defective separation of the platelets from normal megakaryocytes. Therefore, removal of the spleen produces a rapid and persistent rise of platelets to levels beyond the normal range for years following operation. But in the type of thrombocytopenic purpura in which there is a deficient production of megakaryocytes by the bone marrow the removal of the spleen is less beneficial if not unnecessary. It is this type of purpura that is difficult if not impossible to differentiate preoperatively unless the blood picture reveals semblances of aplastic anemia. Postoperatively there is a transient rise in platelets with an apparent clinical cure, but subsequently they fall again to low levels when hemorrhages recur. The return of purpuric symptoms has also been attributed to residual accessory spleens, fairly common in children. Their presence following splenectomy thus furnishes a source of inhibition of platelet production. Therefore, there is dual responsibility medically to differentiate the type of essential purpura that will respond to splenectomy and surgically to the removal of all splenic tissue.

Purpuric symptoms associated with diminished blood platelets occur in the course of many diseases. Exceptionally do they characterize the essential form of purpura. They are consequences of acute infectious diseases, sepsis,

chemical injury, primary blood diseases, and conditions in which the bone marrow is replaced by other tissues such as Gaucher's disease, Niemann-Pick disease, osteosclerosis, marble bones, and a variety of milder toxic disturbances characterized by a reduction in the circulatory myeloid elements of the aleukia hemorrhagica. The thrombocytopenic purpura therefore represents but one of several destructive processes in the parenchyma of the bone marrow. The injury of the megakaryocytes diminishes platelet formation just as injury to other parts of the bone marrow produces comparable changes in the blood cells. Obviously this specific treatment in the selective injury to the megakaryocytes does not apply to more extensive injury to the bone marrow. The treatment of symptomatic thrombocytopenic purpura depends wholly on the nature of the primary disease.

VASCULAR HEMORRHAGIC DISEASES

Hemorrhagic symptoms abound in disturbances of the vascular channels. Their integrity may be altered structurally or functionally with consequent escape of normal blood. Vascular structure may be affected externally by trauma and internally by increased pressure, lack of nutritional elements, bacterial invasion, chemical injury, and lymphatic infiltration. Occasionally an infant is born with defective vascular structure in one part of the body or another. Again, vascular function may be influenced by internal agents. Although structural changes necessarily disturb vascular function, the one group of hemorrhagic disturbances may be differentiated from the blood etiologically on the basis of extravasation of blood on the one hand and blood combined with exudate inflammatory changes on the other. Such clinical differentiation offers direct therapy on the basis of the etiologic factor interfering with vascular integrity.

The methods of studying the status of the child's vascular endothelium are as yet very crude but clinically accurate. Diminished capillary resistance may be determined by the tourniquet test yielding petechiae or hemorrhages, or it may be gleaned from the diminished urinary output in the erect posture in the presence of pathologic changes of the capillary system. It may be observed microscopically from capillary nail beds revealing structural changes. My determination of the presence of vascular pathologic changes, however, is made indirectly when blood studies show normal content of clotting constituents. Thus are the vascular problems, strictly speaking, nonhemorrhagic diseases.

Hemorrhagic Avitaminosis:

R. N., a girl, age 4 months, was admitted for treatment of nutritional atrophy. Born at full term of an emaciated mother, the baby was maintained on very dilute boiled milk mixtures at irregular intervals with indiscriminate care. After gradual adjustment of concentrated feedings, the baby nevertheless failed to thrive. There were no evidences of enteral or par-enteral infection. The blood Wassermann reaction and roentgenograms of the long bones were negative. Petechiae, first observed in the mucous membranes, spread until purpuric spots covered the body. The blood picture before transfusion showed hemoglobin, 70 per cent; red blood cells, 3,800,000; white blood cells, 14,000; lymphocytes, 55 per cent; platelets, 180,000; tourniquet test, positive; clotting index, 0.45. The purpura was unaffected by transfusion but disappeared gradually with vitamins A, B, C, and D reinforcing the feeding regimen.

Vitamin deficiency produces capillary degeneration. In this case nutritional deficiency preceded birth and was particularly striking in the paucity of these vitamin factors in both the mother's and the baby's food. The blood showed no evidence of hemorrhagic disease, but the purpura was a result of vascular injury resulting from vitamin deficiency.

Scurvy is a classic example of the specific relation of vitamin C to hemorrhage. The primary disturbance is a separation of the cement substances binding the vascular endothelium cells. It is only in severe cases that bone-marrow atrophy is produced with subsequent diminution in platelet formation. In children the external vascular phenomena bespeak the typical clinical picture, and their manifestations are latent and elusive early in the deprivation of vitamin C in the dietary. So much emphasis has been placed on the rôle of vitamin C in the vascular hemorrhage that others have been neglected. Fanconi demonstrated that hemorrhagic symptoms in children with Herter's infantilism are a consequence of vitamin deprivation. Others have observed similar phenomena in the course of marasmus. Apparently the nutrition of the vascular endothelium depends largely on the vitamin adequacy of the dietary.

Allergic Purpura:

A. L., a boy, age 5, had recurrent attacks of colic since infancy. They usually occurred during the spring with pain in the abdomen and musculature followed by tarry stools with mucus. All treatment was ineffectual, each episode being self-limited. At the fourth year the attack was so severe that the appendix was removed. When he came under my observation during an attack, the boy had infected tonsils, carious teeth, and intense dermatographia. The blood picture showed a hemoglobin of 80 per cent; red blood cells, 3,800,000; white blood cells 17,000; platelets, 270,000; clotting time, 5 minutes; bleeding time, 4 minutes; tourniquet test, positive; polymorphonuclear cells, 74 per cent;

eosinophils, 5 per cent. The urine showed albumin, casts, and red blood cells. The parents were both allergic. The removal of carious teeth, a tonsillectomy, and gradual desensitization with a nonhemolytic streptococcus obtained from a culture of the tonsils have prevented these attacks for 2 years.

Systemic hemorrhagic attacks recurring in allergic children are well-defined syndromes. The tissues affected by hemorrhage have previously been differentiated as separate syndromes, gastro-intestinal hemorrhages as Henoch's purpura, joint involvement as Schoenlein's purpura, and cutaneous eruptions as erythema multiforme; but the advent of the allergic mechanism has unified these syndromes into a single group of allergic purpura. They are usually the result of bacterial, food, or drug allergy in children of allergic constitution and parentage. The purpuric eruptions usually follow generalized symptoms which together constitute the recurring pattern for the particular child. The blood-clotting function is normal, but the capillary resistance is varied in the same patient. Once the diagnosis is determined, recovery is spontaneous and prognosis is always favorable.

Prevention of recurrent allergic purpura requires the discovery of the specific allergic offense. In the case of Henoch's purpura cited, the elimination of the oral foci of infection cleared the condition. In another case, that of a girl, age 5, purpuric spots appeared over the legs with each attack of tonsillitis. Tonsillectomy was performed on the basis of a supposedly rheumatic fever and postoperatively petechiae and joint pains recurred. When the child was first presented, a diagnosis of Schoenlein's purpura was made. The persistence of a hemolytic streptococcus in the sinuses was the focus responsible for the exacerbations. Desensitization with a specific vaccine eliminated the allergic purpura. Another girl, age 8, showed for 2 years recurrent attacks of abdominal cramps, joint pains, and purpuric spots over the legs. Since there were no foci of infection, skin tests were made. On that basis wheat, egg yolk, and pork were eliminated, with complete disappearance of symptoms except for purpuric eruptions. The accidental inclusion of an egg-containing food precipitated allergic symptoms. Clinical variations of allergic purpura are innumerable. Patients with recurrent attacks are treated for indigestion, rheumatic fever, purpura, and sepsis, and are operated upon for appendicitis, intussusception, or gastric ulcer before the actual diagnosis is established. But the attacks continue until the allergic offense is eliminated.

Hemorrhagic Infections:

H. R., a boy, age 4, was admitted to the hospital with a history of convulsions associated with a severe infection of the upper respiratory tract. Hemorrhage appeared in the orbit and marked purpuric extravasations over the trunk and upper extremities. Facial weakness and complete right hemiplegia followed. Examination of the blood showed clotting and bleeding time, normal; tourniquet test, positive; platelets, 310,000; platelet lysis, 35 per cent; blood-clotting function, normal. An encephalitic infection was the cause of the purpura.

Hemorrhagic symptoms predominate in infectious invasion. Vascular injury usually exceeds the disturbances in myeloid function, but the relative changes in each depend on the severity of the infection. I have observed as confirmation of the vascular injury petechiae containing the organisms of meningococcemia, embolic abscesses with visceral hemorrhages in pneumococemia, nosebleeds and even hemorrhagic sputum in epidemic influenza, thrombotic petechiae consisting of tuberculids, punctate hemorrhages in scarlet fever, bleeding of the mucous membranes in diphtheria, hemorrhages from the mucous membranes in congenital syphilis, and purpura associated with the presence of endothelial cells in the circulating blood of patients with subacute bacterial endocarditis.

Capillary hemorrhages are not infrequent as consequences of vascular congestion in the course of chronic infections. Rheumatic heart disease induces epistaxis or congestion hemorrhages in the edematous lower extremities. Pertussis precipitates hemorrhages into the conjunctivae and eyelids as well as from the nose and bronchi. Uremia occasionally reveals terminal cerebral, retinal, and intestinal hemorrhages rather than petechiae. The hemorrhagic symptoms in uremia parallel the severity of capillary damage from infection and not the degree of nitrogenous retention. Increased venous pressure in normal circulatory systems is not a determining factor in these bleeding manifestations.

Arrest of bleeding in the course of infectious invasion may be brought about by therapeutic measures for decreasing capillary permeability. Elimination of infection is, of course, the primary concern, but the self-limited nature of infectious disease necessarily requires vascular medicaments. Clinically, calcium salts have been used in most hemorrhagic diseases for centuries with favorable effects but based on erroneous interpretations. The calcium required in the clotting mechanism is rarely found wanting in amounts necessary for this process. Even the striking clinical entities involving hypocalcemia never show bleeding symptoms.

Calcium therapy is indicated in abnormal bleeding resulting from vascular dysfunction. Its effect is specific in decreasing capillary permeability. The calcium salts administered have no bearing whatever on elevating the well-buffered calcium content of the blood. Calcium therapy is best administered intravenously in a 10 per cent solution of calcium gluconate or calcium chloride, from 10 to 25 c.c. being injected very slowly. Oral administration is, of course, slower in its effect but may well be supplemented in from 5 to 10 grain (0.33 to 0.65 gm.) doses offered between feedings to prevent its precipitation into the intestinal tract and subsequent loss in the stools.

The administration of gelatin arrests bleeding by condensing platelets on the vascular bed. From 20 to 40 c.c. may be injected intravenously in 10 per cent solution, or it may be fed in 10 per cent solution, either directly, sweetened and flavored with vanilla and mixed with milk, or as a jelly, which may be kept on ice for 2 days.

Pituitary solution is an effective vasoconstrictor in arresting bleeding. This mechanism is operative in vascular beds other than those of the female genital organs. The injection of 0.5 c.c. of pituitary solution frequently suffices to arrest capillary oozing due to vascular injury. The action is more prolonged than that of epinephrine hydrochloride. It is the vasopressor fraction of the posterior lobe that affects the vascular endothelium in the direction of increased blood coagulation.

HEREDITARY HEMORRHAGIC DISEASES

Hemorrhagic tendencies may be truly inborn. They are the consequence of hereditary defectiveness rather than symptoms of disease. In no other ailment is the medical history of previous generations as significant as in the transmission of hemorrhagic defectiveness, and its manifestations are so dramatic as never to be forgotten by any family. Teleologically there exist genotypes with transmitted defects in the formation of each of the clotting factors, sex linked defectiveness in platelets in hemophilia, familial abnormalities in platelets in thrombasthenia, congenital derangement in fibrogen formation in fibropenia, familial defectiveness in vascular channels in telangiectasia. Thus may each of the factors involved in the clotting mechanism be formed defectively throughout life as a family failing. But these constitutional familial hereditary diseases are not always clear-cut, for nature's defects are never selective. Obviously, combinations of hemorrhagic defectiveness exist as phenotypes of the well-defined

hereditary diseases. Clinically, even hereditary diseases are the result of disturbances existing simultaneously in the bone marrow, spleen, liver, and capillaries. Therefore, all the more caution is necessary in the diagnostic finality of hereditary hemorrhagic tendencies.

Hereditary Hemophilia:

A. H., a boy, age 8, bled from infancy with every disturbance. The mother's oldest brother was a bleeder. Continuous bruising followed slight trauma since walking. A large hematoma of the leg followed an insect bite. An abrasion of the lip oozed for 10 days. A slight laceration of the hand from cut glass bled for days in spite of the administration of tetanus antitoxin, but a transfusion from the mother promptly arrested the bleeding. Hemorrhagic effusions into the left knee joint recurred until whole blood was administered from the mother at her menstrual period. Bruises continued following trauma, but bleeding ceased after fortnightly injections of ovarian extract intramuscularly and goat's serum intradermally.

Hemophilic bleeding can be controlled but not cured. Mild bleeding may be stopped locally by application of fresh raw meat, fresh blood, or cephalin after the removal of useless clots; pressure alone is contraindicated. All other hemostatics locally applied are ineffective. Severe bleeding may be checked for 4 days by the transfusion of whole blood from a suitable donor. Even an ounce of injected blood arrests hemorrhage, but the degree of subsequent improvement depends on the amount of blood given. Stored serum is ineffective in inhibiting clotting, but an ounce of fresh serum arrests bleeding within a day.

Hemophilia is as characteristic clinically as it is hematologically. It occurs in the male with a typical familial bleeding pattern. It is transmitted by the female, although the mother's blood shows a normal blood-clotting function. Bleeding is protracted, the clotting time prolonged and, paradoxically, the bleeding time is normal. Hemophilic blood shows the lowest index of blood-clotting function and a normal or increased number of platelets, physiologically defective because of their striking stability. Capillary resistance tests reveal no impaired function.

Bleeding from superficial injuries may be diminished by passive sensitization. The maintenance of an allergic state by repeated serum therapy increases the prothrombin sufficiently to be protected by capillary hemorrhage following trauma. In fact, the clotting time of capillary blood is diminished within 2 hours of the injection of serum, but the change produced in the blood is inadequate against injuries involving the larger vessels and joints. The child is sen-

sitized preferably to goat's serum by the subcutaneous injection of 3 c.c. At the end of a fortnight, the child is given from 2 to 3 minims (0.12 to 0.18 c.c.) of the serum intradermally. The appearance of a wheal at the site of injection indicates passive sensitization. The intradermal injection of the same serum should be repeated every 2 weeks for the maintenance of the allergic state. Another procedure effective in arresting hemorrhage in emergency is a transfusion of blood from a donor sensitized to goat's serum. The intradermal injection is repeated every 14 days to continue sensitivity in the hemophilic.

Bleeding into the joints may be controlled by ovarian hormone therapy. Most hemophilic patients bleed from the mucous membrane of the nose, mouth, and gums, and into the joints. Other sites of hemorrhage are relatively infrequent in comparison. And no form of therapy thus far advanced has been as effective as the injection of female sex hormone. Its absence in the blood of tissues of hemophilic boys is a hereditary sex-link deficiency factor. Its administration weekly produces no changes in the concentration of clotting substances, but rather decreases capillary permeability. Injection of active ovarian extract is indicated for interim treatment of the hemophilic state rather than for control of acute hemorrhages. Repeated intramuscular injections decrease the bleeding tendency without affecting the easy bruising. Acute joint lesions require splinting and even immobile plaster-of-paris bandages until pain disappears and the hemorrhage is absorbed. Aspirations are contraindicated. Chronic hemophilic arthritis requires correction of deformities. Traction or wedging plasters or mechanical appliances stretch the contracted tissue and strengthen the joint. Then the limb is kept in the corrected position by an elastic bandage.

The prevention of hemophilia is a problem for eugenics. The course of the disease can be altered. Nature spares hemophilic newborn infants from the effects of birth trauma by the transmission of an abundance of female sex hormone into the infant's circulation. Thus it is that the disease does not become manifest until late in infancy unless surgical intervention precipitates bleeding. The disease tends to ameliorate with growth, particularly after the endocrine adjustment of puberty. The avoidance of trauma by limitation of activity requires compensatory physical therapy to improve muscle tone. The maintenance of bodily warmth and vacations in warm climates appear to alter favorably the course of the disease. The clotting dietary has produced no appreciable effect on

the hemorrhagic status of hemophilic persons. Infection has been found to precipitate bleeding, particularly into the skin and joints. Operative emergencies are safely carried out after preliminary transfusion.

Familial Thrombocytopenic Purpura:

J. C., a boy, age 14, had suffered severe nosebleeds since infancy. His mother's maternal uncle and grandfather and 2 sisters were similarly affected. No other form of bleeding occurred, but the epistaxis recurred regularly during the winter months. During the period of an infection of the upper respiratory tract, nosebleeds became more persistent, not infrequently being associated with petechiae in the conjunctiva and palate. There was no evidence of telangiectasia in the upper respiratory tract. The nail fold capillaries were tortuous. The spleen was not palpable. The blood picture was normal, the platelets fluctuating around 110,000; bleeding time was 12 minutes and clotting time 4 minutes; clot retraction was delayed; the tourniquet test varied. The boy was maintained on a high fat and protein dietary with some benefit. Early treatment of infectious invasion minimized several attacks of epistaxis. Irradiation by ultraviolet light reinforced by 10 D cod liver oil and calcium salts during the winter months contributed toward the elimination of these attacks. A donor for intramuscular and intravenous therapy was available but not used.

Essential thrombocytopenic purpura may be a constitutional disturbance characterizing certain families. Cases have been reported in infants of both sexes born of mothers with this disease. In fact, some of the infants have shown multiple malformations in other tissues of the body and some have shown striking deficiencies in megakaryocyte formation. Intravenous transfusion is effective if repeated, but intramuscular blood is of little avail. Splenectomy is a surgical risk in newborn infants. In those that survive, recurrent bleeding persists more or less throughout life. There is always a hereditary history, its transmission being a dominant characteristic; and the pattern of bleeding simulates that of other affected members of the family. The basis of the bleeding is thrombocytopenic and, unless medical supervision minimizes bleeding, splenectomy is indicated.

Hereditary Thrombasthenic Purpura:

B. W., a girl, age 10, had spontaneous hemorrhages since infancy. The mother had had recurrent epistaxis and mild purpura throughout her life, but none of the older children were affected. The child would suddenly develop severe nosebleeds or ecchymosis over the head, neck, and extremities without any apparent exciting cause. At age 7, a loosened tooth was followed by bleeding of the gums for 2 weeks. At age 8 she had a vaginal hemorrhage which simulated menstruation. She was variously treated for purpura and hemophilia. The hemoglobin was 55 per cent; red blood cells 3,100,000; white blood cells, 7800; polymorphonuclear cells, 71 per cent; monocytes, 15 per cent; lymphocytes, 12 per cent; platelets, 395,000; clotting time, 6 min-

utes; clot retraction, delayed. Bleeding time from the right ear lobe was 10 minutes; left ear lobe, 32 minutes; the tourniquet test was positive. Bleeding was arrested locally by means of tampons saturated with fresh blood obtained from the father. Only repeated intravenous transfusions were effective in aborting the duration of spontaneous hemorrhages.

Children may be born with hemorrhagic purpura without thrombocytopenia. It is transmitted by the mother to both sexes. Recurrent bleeding may be spontaneous or traumatic. The blood picture is normal except for the changes incident to the simple loss of blood, and the platelets are always normal in quantity but defective in quality. They show abnormalities in size, shape, and staining qualities with consequent failure of agglutination. Therefore the bleeding time is prolonged, clot retraction is retarded or absent, and the tourniquet test is positive. Therapy is based on procedures for supplying normal platelets only possible by intravenous transfusions. All other platelet therapy is ineffective, and splenectomy or theelin is particularly effective in accelerating platelet agglutination.

I have seen death occur following splenectomy in a girl, age 10, with this condition. Like her mother, she had had recurrent epistaxis and purpura since birth. Her blood picture was characteristic of thrombocytopenic purpura, but a neglected hemorrhage became uncontrollable when splenectomy was performed. I followed the course of this disease in 2 brothers whose mother experienced milder purpuric bleeding. One boy had hemorrhagic measles. Both boys responded well to protection from trauma, prevention from infectious foci, early arrest of purpuric symptoms, and repeated transfusions before bleeding became uncontrollable.

Hereditary Hemorrhagic Telangiectasia:

J. G., a girl, age 13, a twin, developed repeated nosebleeds. The other twin was normal, but the grandmother, paternal uncle, and cousin had similar attacks. Examination of the blood showed hemoglobin, 60 per cent; red blood cells, 4,000,000; white blood cells, 8500; polymorphonuclear cells, 65 per cent; platelets, 280,000; clotting time, 3 minutes; bleeding time, 5 minutes; clot retraction, 3 hours; tourniquet test, negative. Examination of the nasal and mucous membranes showed multiple angioma as the local cause for bleeding.

Puberty first precipitates bleeding varicosities which characterize this developmental effect. It is transmitted by both sexes and affects both. Inherited defects in the venous channels are usual in the nasal and buccal mucous membranes but hemoptysis, gastric hemorrhage, uterine bleeding, hematuria, and even rectal bleeding

may result from such telangiectasia. The blood picture is normal; consequently, there is no excessive bleeding or bruising from the dilated vessels. The treatment is local and as yet not specific.

Transitional Hereditary Hemorrhagic Diseases:

H. C., a boy, age 14, gave an unusual hemorrhagic picture. The family was free from hemorrhagic heredity. Recurrent nosebleeds from infancy alternated with purpuric eruptions, joint lesions, and hematuria. On examination, the boy showed petechiae of the mucous membranes, ecchymosis over the extremities, and acute hemarthrosis. Examination of the blood showed hemoglobin, 70 per cent; red blood cells, 4,000,000; white blood cells, 5900; polymorphonuclear cells, 70 per cent; lymphocytes, 20 per cent; platelets, 450,000; clotting time, 18 minutes; bleeding time, 40 minutes; clotting retraction, positive; tourniquet test, positive.

Such is the blood picture of an atypical hemorrhagic problem. It conforms both to hemophilia and to thrombocytopenic purpura. It demonstrates the futility of following pattern pictures for diagnostic nomenclature. Hemorrhagic patients respond to proper measures corrective of their disturbance rather than to those traditional treatments accorded to the disease label. In no other disease mechanism is individualization of diagnosis and treatment so essential. Among the chronic hemorrhagic disturbances exist entities intermediate between the so-called primary hemorrhagic diseases. Hemophilia is etiologically an endogenous disease of certain mesenchymal structures, as are the purpuras, thrombocytopenic and thrombasthenic. Hence, combinations of such defectiveness exist simultaneously in these tissues, giving rise to chronic transitional disturbances. Observation of such cases has contributed as much to a clinical conception of hereditary heterogeneity as to the creation of corrective measures in their behalf.

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UNILATERAL SUBLUXATIONS OF CERVICAL VERTEBRAE WITHOUT ASSOCIATED FRACTURE

Since January, 1929, Barbara B. Stimson and Paul C. Swenson, New York (*Journal A. M. A.*, May 4, 1935), have seen 66 cases of unilateral subluxation of the cervical vertebrae without associated fracture. They stress the composite picture presented by the 66 cases: a relatively young adult who seeks relief for stiffness and pain in the neck within 24 hours after a mild twist or jerk of the head and who holds his head tilted to one side and cannot bend it to the opposite side. Adequate roentgenograms are necessary for conclusive diagnosis. Treatment is relatively simple after the diagnosis has been established.

THE TREATMENT OF ANGINA PECTORIS*†

CHARLES C. WOLFERTH, M.D., PHILADELPHIA

The first important step in treatment is accurate diagnosis. If one confuses angina pectoris with (1) myocardial infarction; (2) precordial aches or pains of mitral stenosis, neurocirculatory asthenia, and a host of other conditions; or (3) the extracirculatory causes of pain having a location similar to that of the anginal syndrome, his conclusions will be subject to serious error.

The treatment of angina pectoris cannot be considered intelligently apart from its etiology. A regimen for the victim of tobacco angina without consideration of the effect of tobacco or for the patient with hyperthyroidism without appropriate treatment of the thyroid gland is futile. Yet such obvious factors are frequently missed.

Dr. Thomas Fitz-Hugh, Jr., and I have just reported a series of cases with gallbladder disease and electrocardiographic as well as clinical evidence of myocardial damage, in which gallbladder surgery was followed by marked improvement of the heart condition and complete relief from the anginal syndrome in several cases. One patient with marked angina of effort has not had a single attack since the removal of a diseased appendix 5 years ago. The diabetic with angina is often greatly improved by proper management of the diabetes. In addition to disease, however, the factors of hurry, flurry, and worry may be important.

A searching history and complete examination of every patient with angina pectoris is needed. The data necessary include adequate knowledge of the patient's personality, social milieu, habits, various struggles and conflicts, as well as all his physical impairments.

Essential steps in treatment are (1) to help the patient obtain a reasonable attitude—in some cases relief from terror, in others a proper respect for the malady; (2) the relief, so far as practicable, of various types of tension and strain—domestic, social, or business; (3) thorough revision of faulty habits—a reduction in the excessive use of tobacco or alcohol, proper apportionment of work, recreation, and rest, and attention to habits of eating and types of food; (4) careful consideration of various physical impairments—appropriate treatment of obesity, anemia, thyroid disease, diabetes, gastro-intestinal disorders, gallbladder diseases, and prostatic

hypertrophy, removal of infected teeth and tonsils, improving the general health to the best possible state.

The cure of tobacco angina by abstinence from tobacco is swift and sure. Unfortunately this comprises only a small percentage of cases. Striking results may be obtained in appropriate cases by relief of anemia or hyperthyroidism, removal of a diseased gallbladder, or prostatectomy. If the tonsils are septic or the teeth obviously infected, they should be removed during periods of amelioration. The results are not brilliant, but general health may be improved and occasionally a favorable effect on anginal attacks observed.

Very severe cases are sometimes benefited by a period of prolonged bed rest, but in the great majority of cases it is not required. It is generally believed that patients are not harmed by activity below the level of pain production. It is usually better to permit them to continue working unless the work is of a type which brings on frequent attacks. The patients should make observations regarding the factors which excite attacks, such as amount and rate of exertion, the effect of emotion, ingestion of food, reaction to cold or blustery weather, so that a regimen may be planned to keep attacks at a minimum. In all cases, however, the importance of adequate daily rest should be emphasized, not only a long time in bed at night but if possible a rest period after the noon meal. Exertion should be avoided immediately after eating.

There is little if any evidence to indicate that alcohol, per se, is an important etiologic factor. Nevertheless its use should be restricted since excess leads to relaxation of the regimen in other directions, such as overexertion or overeating. In many cases total abstinence is best.

General massage is helpful to individuals who are incapable of exertion. The more elaborate forms of physical therapy requiring special apparatus such as diathermy may serve to divert the patient and have psychotherapeutic value.

Nitroglycerin is the most valuable drug in the treatment of attacks. Tablets which will dissolve quickly are placed under the tongue. The usual dose yielding best results is one one-hundredth of a grain although some patients do not tolerate more than one two-hundredth of a grain. In the great majority of cases it is preferable to amyl nitrite. The advantage of the latter is quickness of action, and the disadvantages are evanescence of action and difficulty in controlling

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† From the Edward B. Robinette Foundation, Medical Clinic, Hospital of the University of Pennsylvania.

the dosage so as to avoid unpleasant effects such as headache or dizziness.

Patients may obtain satisfactory results from nitroglycerin for many years. A moderate increase of tolerance occurs so that eventually the dosage may have to be doubled or tripled. One of the clinic patients with cardiovascular syphilis has taken 17,000 tablets. At times he has taken from one-half to three-fourths of a grain of nitroglycerin a day to suppress attacks. No bad effects from this dosage have been noted except a tinge of cyanosis.

There are few contraindications to the use of nitroglycerin to relieve anginal attacks. It is of no particular value so long as attacks last only 1 to 3 minutes. It should not be used to permit exertion sufficient to cause an attack except unavoidable exertion such as the act of defecation or climbing a flight of stairs. It should not be taken at stated intervals irrespective of pain. Sodium nitrite and erythrol tetranitrate have not yielded satisfactory results.

Theobromine and theophylline have some value in diminishing the frequency and severity of attacks. Their chief usefulness is in severe cases. Unfortunately they tend to cause gastric irritation. Theophylline on the whole is more effective than theobromine but causes digestive disturbance more often. However, many patients tolerate these drugs well, particularly if they are alternated or given intermittently. Larger doses than 5 grains of theobromine or $1\frac{1}{2}$ grains of theophylline, 3 times a day, are usually tolerated only for short periods. In patients with angina of decubitus, a single dose at bedtime may tend to prevent attacks during the night.

The barbiturates have a place in the treatment of nervous or hypertensive patients. My preference is for phenobarbital given 3 times a day (after luncheon and dinner, and at bedtime) in dosage of one-eighth to one-half of a grain. This drug must always be carefully observed for the familiar toxic effects of barbiturate.

Iodides may be helpful in angina due to cardiovascular syphilis. Nevertheless, in a small minority of patients, presumably nonsyphilitic, the attacks have been abated or have disappeared after the use of iodides.

Tissue extracts have been tried in a series of our patients with angina of effort who had been under observation for a long time. In not a single case did any of the tissue extracts have the slightest perceptible influence, good or bad, on the anginal process. Furthermore, the literature thus far does not seem to have furnished evidence which will convince the critical reader as to the value of these substances.

Stimulated by the report of Sosman, my colleagues, Drs. Francis C. Wood, Eugene P. Pendergrass, and I subjected a number of patients to irradiation of the paravertebral sympathetic nervous structures for the relief of angina pectoris. The results could be attributed to the powerful psychotherapeutic influence of the treatment. The cases in which we felt sure there was no important nervous component remained uninfluenced. Recent work of John Q. Griffith, Jr., and Eugene P. Pendergrass has shown that the sympathetic nerve structures of rats are refractory to irradiation in much higher doses than may be employed in the treatment of humans. There is little ground for hope, therefore, that irradiation of the sympathetic nervous structures will prove of value.

The injection of the paravertebral sympathetic ganglia with alcohol is capable of relieving anginal pain *on the side of the injection*. In cases of severe pain uncontrollable by the measures previously mentioned, this procedure has been of value. Such cases, however, constitute a very small fraction of the total group. The procedure carries with it at least slight danger of puncturing the pleura or communicating with the sub-arachnoid space. Almost all patients suffer with intercostal pain for a number of weeks after injection. In the best hands the treatment has failed in 25 per cent of the cases but has given considerable or total relief (at least temporarily) in approximately 50 per cent.

Many investigators have been particularly interested in devising an operation to block pain impulses. Another theoretical possibility is the blocking of vasoconstrictor impulses to the coronary vessels. Although certain of these procedures have proved effective for the relief of pain on the side of the operation, there is an appreciable operative mortality. The effects of interruption of sympathetic fibers to the face are highly objectionable, and thus far there is no evidence that any patient's life has been prolonged.

The fundamental objection to procedures involving blocking of sympathetic impulses, whether they consist merely of alcohol injections or surgical section of nerve pathways, was expressed by the late Sir James MacKenzie when he pointed out that the warning signal of pain serving as a protective mechanism to stop exertion might be abolished. Electrocardiograms taken during anginal pain induced by exertion or spontaneous in origin may show evidences of myocardial anoxemia comparable to that of coronary occlusion. Fortunately for the patient the pain mechanism forces him to stop exertion. If this were absent so that exertion

could be continued and myocardial anoxemia increased, the possibility of ventricular fibrillation and sudden death would be increased. Consequently it is not safe to permit the patient a wider latitude of exertion after blocking of sympathetic impulses than before. None of these procedures, therefore, can be justified for the treatment of effort angina. Before they are used for the treatment of intractable angina which comes independently of exertion, the physician should be certain that he is not dealing with coronary occlusion. In certain cases coronary occlusion may be responsible for repeated severe and prolonged anginal attacks over a period of weeks without the appearance of evidences of myocardial infarction. In such cases the severe attacks frequently subside spontaneously in the course of time, an effect which might readily be ascribed to any therapeutic procedure used.

One of the most interesting therapeutic proposals of recent years is total thyroidectomy for the treatment of congestive heart failure and angina pectoris. It appears to have been shown that total thyroidectomy not only relieves anginal pain but actually makes possible increase in the patient's range of activity. Hope has been extended to those who find life intolerable either because of anginal pain or because of necessary restrictions imposed on the conduct of their lives. This group, however, comprises a small percentage of the total number of cases of angina pectoris. We have considered the propriety of the operation in every case and proposed it to at least a dozen. No effort was made to urge the operation in any case although the possibilities of benefit were pointed out. It seemed significant that only 2 regarded their situation as sufficiently intolerable to undergo this procedure. This is in contrast to our patients with congestive heart failure, a considerable proportion of whom eagerly grasp at this possibility of relief.

If it can be shown that total thyroidectomy actually lengthens life in the victims of angina pectoris, the applicability of this procedure will be tremendously widened.

CONCLUSION

The importance of the time element in treatment should be emphasized. There may be great variation in the frequency and intensity of anginal attacks. The condition may be severe for a time and then subside. We must not be stampeded into radical procedures for the control of pain until conservative measures and time have had ample opportunity to achieve results.

The problem is often largely one of tiding the patient over a difficult period. The most effective part of treatment for many is to have the physician sit down and talk over the situation, giving renewed hope and strengthened morale to continue the fight. It is not necessary to dwell on the catastrophes that may occur. The imagination of the suffering and despondent patient will supply all the catastrophe necessary. It is desirable under such circumstances to emphasize the hopeful aspects of the situation.

No inconsiderable fraction of the world's important work is carried on or directed by victims of angina pectoris. Some of them have recovered at least partially from an apparently hopeless state of invalidism. The therapeutic measures at our command are admittedly limited, and complete relief with ability to resume unrestricted activity is exceptional. On the other hand, there are few patients with angina pectoris who cannot be helped.

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ABSTRACT OF DISCUSSION

CHARLES H. MINER (Wilkes-Barre): As Dr. Wolferth says, the accurate diagnosis of angina pectoris is most important, and to determine whether the pain is of cardiac origin or not is often difficult. We should be slow to make a definite diagnosis, keeping the patient under observation for some time before committing ourselves to the opinion that the patient has angina pectoris.

Hurry and worry are the leading causes of the disease, and the nervous person usually develops the syndrome much earlier than the one who has a stable nervous system. Many patients who experience what they believe to be cardiac pain will be relieved by reassurance, encouragement to continue their work, and small doses of phenobarbital and sodium bromide.

As has been stated, gallbladder disease frequently is the cause of the anginal syndrome, and electrocardiographic as well as clinical evidence of myocardial damage are present; but marked improvement of the heart condition and complete relief from the anginal syndrome follows gallbladder surgery.

The symptoms of gastric ulcer are sometimes confused with the milder forms of angina, and it is possible for both conditions to exist in the same patient. The cardiac pain may be due to hyperthyroidism, diabetes, gout, pericarditis, syphilitic aortic disease, mitral disease, tobacco, neurocirculatory asthenia, or hysteria.

After the etiology is determined in true angina, usually due to coronary disease, one one-hundredth of a grain of nitroglycerin in fresh hypodermic tablets gives prompt relief from the attack, and many times the use of a tablet just before exercise likely to cause pain will allow the patient to go through it without difficulty. This plan has been used in a number of cases without apparent harm.

Iodides have a beneficial influence on the circulation in some individuals. Five drops of a saturated solution of potassium iodide taken 3 times a day seems to cause a decided improvement.

It is interesting to review what Sir William Osler, in his lectures on "Angina Pectoris and Allied States," says regarding this type of treatment: "The nitrites

in hypertension and angina pectoris are of value quite equal to the iodides. The nitrite of amyl is employed in the paroxysm. The nitroglycerin or trinitrin is indicated in all cases in which the tension is persistently high. Given properly, it is a very valuable remedy, but to get any advantage from its use each case must be taken by itself. In the first place, be sure that the nitroglycerin, either in solution or tablet, is fresh. The tablets containing one one-hundredth of a grain are, as a rule, reliable. It is well to begin with only 1 of these 3 times a day. The dose may be increased gradually until the patient takes 4 or 5 tablets 3 times a day, or even larger doses. If the patient notices a slight glow or flush and a little sensation of fullness in the head, you may know that the remedy is acting. In individual

cases we often do not employ the drug in sufficient doses. I have never seen it do any harm. The extreme flushing and throbbing headache gives reliable indications when the limit has been reached. I have given as much as 30 minims of the 1 per cent solution 3 times a day to a patient with chronic arteriosclerosis without any disturbance."

The use of morphine hypodermically should be reserved for those patients who are not relieved by full doses of nitroglycerin and in whom the possibility of a thrombosis is strongly suspected.

Complete rest in bed for a month is often very beneficial in cases of recent onset and those with hypertension. A hopeful outlook is more justifiable than a gloomy one and is as important as any drugs.

INHERITANCE AND DISEASE*

JOSEPH H. BARACH, M.D., PITTSBURGH

The time has come when the physician must give more serious consideration to the question of inheritance in disease. It is necessary for a broad cultural understanding in medicine. It is necessary for a deeper understanding of the implications of isolated diseases. It is necessary for a proper interpretation in diagnosis. Certainly it is important in prognosis and likewise in the treatment of disease.

It is often said that the high type of country doctor and the high type of family physician are, in the last analysis, the most understanding of all doctors. The reason for this is not defined nor stated, but much of the understanding possessed by this type of physician is based on his knowledge of the patient, the patient's antecedents, and the family as a whole. This knowledge of the patient's history, his inherited qualities and tendencies, gives the physician a background by which diagnosis, prognosis, and treatment are better oriented and come nearer to the truth of the problems at hand.

THE BASIS OF INHERITANCE

If the ovum is designated as the first cell, the sperm as the second cell, and the zygote, which is the product of sperm and ovum, as the third cell, then that which goes into the third cell, and that only, will become manifest in the offspring. In a way, this simple statement of fact contains all the philosophy of inheritance.

Heraclitus, the ancient Greek philosopher, and Anaxagoras, his pupil, seem to have realized all this in enunciating the great truth, "Nothing originates and nothing is destroyed. All is mixed and unmixed out of preëxistent things."

Gregory Mendel, who laid the foundation for present-day conceptions of inheritance, found in his experimental garden that, when tall peas and short peas are crossed, it is not medium-sized peas that are produced but both tall and short varieties, occurring in certain proportions. In these observations he embodied the great principle of segregation of characters.

Characters retain their own identity and reproduce themselves. They do not blend; they carry over unchanged into future generations. If that were not constant, all living things, probably millions of years ago, would have become regimented into a universal monotony.

Each human germ cell, male and female, contains 24 pairs of chromosomes. In the union of male and female germ cells, each casts off one-half of its own chromosomes so that the zygote carries only one complete set, half of which are from the father and half from the mother. Thus we inherit the characters of our antecedents.

Sperm and ovum coalesce to form the zygote; consequently, the zygote contains all the characters of both preceding cells. At this point inheritance is complete. Whatever happens to the individual from then on will be due to modifications brought about by environment and always will be within fixed limitations.

As the zygote multiplies, its cells become differentiated into endoderm, mesoderm, ectoderm, and the germ cells. These 4 embryonal layers finally make up the entire organism, as illustrated in Figs. 1 and 2.

This plan of the zygote is in reality the plan of the organism. It indicates a mode of interaction between organs, tissues, glands, cells, and their chemical secretions. These reactions may be chemical or biophysical. Thus, thyroid secretion incites the cardiovascular system and metab-

* Read before the Section on Medicine of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 2, 1934.

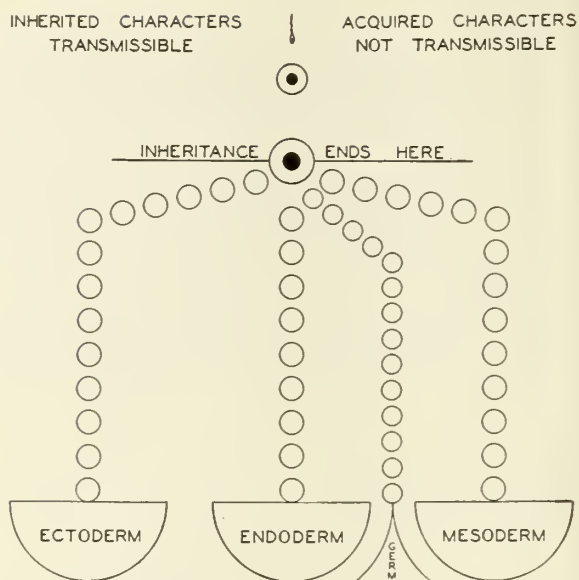


FIG. 1

olism. Thus, excessive parathyroid secretion disturbs the calcium-phosphorus metabolism and leads to decalcification. Pituitary excess leads to overgrowth, insufficiency to dwarfism. Insulin deficit leads to diabetes, and adrenal insufficiency leads to Addison's disease. The milieu of these changes is the pericellular fluid, lymph, and blood stream.

It would be very simple if the 24 embryonal subdivisions of this plan represented the 24 chromosomes of the human cell. It would be very simple indeed if there were, for example, one chromosome from which the cardiovascular system emanated. The chromosome is a linear thread, holding its genes in suspension, like beads on a string, with each gene occupying a fixed position. In such an arrangement, the cardiovascular genes located at the top of the string might represent the cerebral vessels of the future organism, and inherited defective genes at this point would eventuate in defective cerebral vessels and apoplexy in succeeding generations. Defective genes within the upper half of the chromosome would lead to succeeding generations of heart disease in families. Defective genes at the lower portion of the cardiovascular chromosome would lead to the well-known familial thrombo-angiitis obliterans (Fig. 3). The same would be true for diseases of the nervous system and the digestive system, and all those other diseases which are known to be familial, inherited, and transmissible.

Such a mechanism is, in a sense, already known to be true for lower forms of life. Morgan and his coworkers have proved the existence of fixed locations in the map of the fruit fly.

Morgan has succeeded in producing at will certain defects in the development of succeeding generations of the fruit fly in certain fixed positions on the map by breeding and cross-breeding for these defects. Breeders of dogs have been able to produce at will large jaws, long ears or short ones, large shoulders, powerful legs, etc.

The results of all this are well-known; the ultimate mechanism of all this is the problem for the geneticist of to-day and to-morrow.

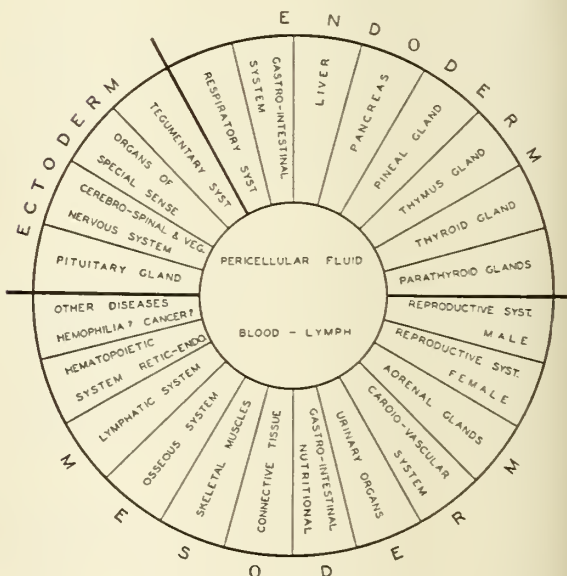
INHERITANCE OF FORM

An organism inherits both form and function, just as the individual cell of an organ or tissue inherits form and function. Man's external form, at first glance, may be classified as being of the linear or lateral type—what has been known in medicine as the wolf or steer type of human being. Analyzing these types, we find that every portion, almost every structure, of the body takes on one, the linear or the lateral, type of architecture.

In the linear type we find the narrow jaw, high-arched palate, long teeth, long neck, thorax, and extremities. The linear type has far vision, is underweight, is gastropototic, has long thin muscles, is active and energetic.

His opposite, the lateral type, is more apt to have near vision, a wide jaw, low palate, short neck, short extremities. He is apt to be over-

INHERITANCE AND DISEASE



CONTENTS OF THE ZYGOTE
24 DIVISIONS — 24 CHROMOSOMES

FIG. 2

weight, to have a broad musculature, and he is more deliberate in his physical and mental activities.

A glance into the family history of these 2 types of individuals reveals at once that body form is as much inherited in man as it was in the tall and short peas in Gregory Mendel's garden.

INHERITANCE OF FUNCTION

Not only form but function is inheritable. An everyday example of this is to be found in a healthy young woman who has had intermittent and irregular menstruation for 12 years. As much as a year has passed without a menstrual period. Her mother was like that, and she has 2 sisters who menstruate irregularly. Examples of inherited function can be multiplied endlessly in the experience of most practitioners of medicine.

ENVIRONMENT

Much has been written concerning the relative importance of inheritance and environment, the extent to which the animal is influenced by heredity, and the importance of the part played by environment. The only correct answer is that both inheritance and environment are determining factors. Environment does not overcome the effects of inheritance nor can inheritance suppress the influence of environment. Temperature, climate, soil, nutrition, and effort all have their developmental influences in the evolution and life cycle of an organism up to a certain point, but not beyond that point and not to an unlimited extent.

In southern United States there are more of the linear type of man, whereas in the eastern states, especially in the cities, there are more of the shorter or lateral type. Sons of Japanese immigrants to California, living in a new environment, are distinctly taller than their parents.

The type of an individual may be misconstrued by too superficial an examination. Short stout individuals may at first sight appear to be of the lateral type, which actually they are not. A short stout female often has small hands and feet, small wrists and ankles; her entire skeleton is actually of the linear type. Indolent living with insufficient oxidation and a greater nutritional intake than is necessary will result in the deposit of a blanket of fat sufficient to alter her entire outward appearance, thus confusing the apparent and real type to which she belongs.

CHROMOSOMES AND STRUCTURE

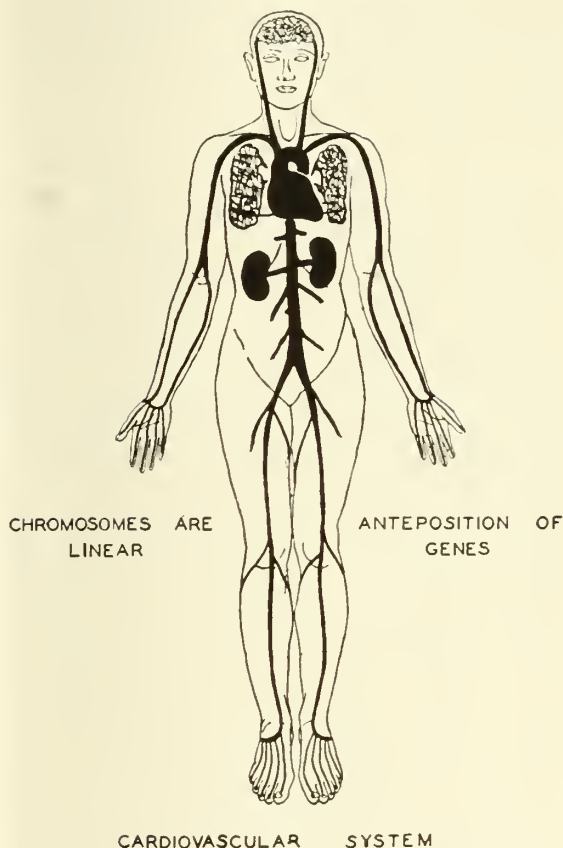


FIG. 3

THE ENDOCRINES AND INHERITANCE

The endocrine factor plays an important part in production of body type. Endocrine characters are inheritable. The pituitary gland controls body growth, as seen in the giant, the dwarf, and the acromegalic type. The thymus, if overactive, produces a certain type of individual in childhood and in adult life. Recent studies show that the thymus gland influences body type and reproduction even to the fifth generation. The adrenal type is characterized by a highly developed neuromuscular system, a strong kinetic drive, skin coloration, hair distribution, etc. The thyroid types with dolichocephalic heads, prominent eyes, slender bodies, highly organized and energized nervous systems, and often uncontrollable nerve, psychic, and physical reactions are likewise very characteristic.

These types and their reactions to surroundings are outstanding, and in them the familial or inherited elements are evident on all sides. In cases in which one member of a family is distinctly beyond the normal, there is a familial background which bespeaks an endocrine im-

balance. In pituitary families we see that, although some members are extremely short, others are extremely tall. In families in which there is hyperthyroidism, hypothyroidism also exists.

SPECIFIC MANIFESTATIONS OF INHERITANCE

Eye.—A very striking and simple example of inheritance is to be found in the coloring of the eyes. The iris of the newborn child is nearly neutral in color, but from day to day there is an increase of pigment until the color of the eyes is well-defined. The color of the child's eyes follows the coloring of the parents' eyes. When brown-eyed parents of pure brown-eyed stock wish for a blue-eyed child, they are asking for the impossible. Children's eyes are not lighter than those of their ancestors. One cannot have brown pigment in his iris if it is not in the genes of his antecedents. The albino has an absence of coloring; albino parents beget albino children.

Myopia is inheritable; it prevails in families just as hyperopia does. There are families in which there is congenital absence of lenses. Cataract is inheritable. Color blindness is inherited; it is sex-linked; it is transmitted by an unaffected female to her male children. It oc-

which these families lived is inhabited by people who suffer night blindness.

Tegumentary Structures.—The skin coloring of the negro resides in the germ cell of his parents. That the character for skin coloring resides in the gonads of the parent is seen in the guinea pig. Ovaries of a black guinea pig were transplanted into a white guinea pig whose ovaries had been previously removed. This pure-bred white female with transplanted "black" ovaries was crossed with a pure-bred white male. Normally, 2 pure-bred white parents produce white offspring only. In this case, however, 2 white parents produced a litter of 6 black offspring, because the ovaries and ova of a black mother transmitted the genes for skin coloration.

The character of the hair of an individual, its color and its texture, is inherited. The hair of a negro under the microscope shows a kinking that is distinct from that of the white man.

In the lower animals plumage is sex-linked, each type being characteristic of the sex. The horn is dominant in the male and recessive in the female, whereas the mammary gland is dominant in the female and recessive in the male.

At this point I wish to record an observation which I have made on numerous occasions. In practice I find only 3 or 4 times to each thousand adult examinations a set of perfect teeth—teeth free of decay to such a degree that they have never required dental attention. One needs to look for such a set of teeth among a white American population with a good deal of patience and only rarely will it be found. The cases of perfect teeth which I have found have always been associated with a nearly perfect skin, one that is free of blemishes of any kind. "Perfect teeth, perfect skin" is a maxim in my experience. Tooth enamel and skin are ectodermal structures, and the ectoderm reflects the inheritance of the individual. Interesting is the fact that hardly ever do I see this in native-born Americans. Generally it is in foreign-born Americans, particularly in natives of southern Europe. Most interesting of all is the fact that the combination of perfect teeth and perfect skin was frequently found in people living in unhygienic surroundings. As often as I have seen it, it occurred not generally in the rich nor the most intelligent nor the most hygienic individuals, but with striking frequency in dispensary patients, who live under unhygienic conditions. This is an example of inheritance dominating over environment.

I also wish to record 3 families in which several generations had wens on the scalp. Strik-

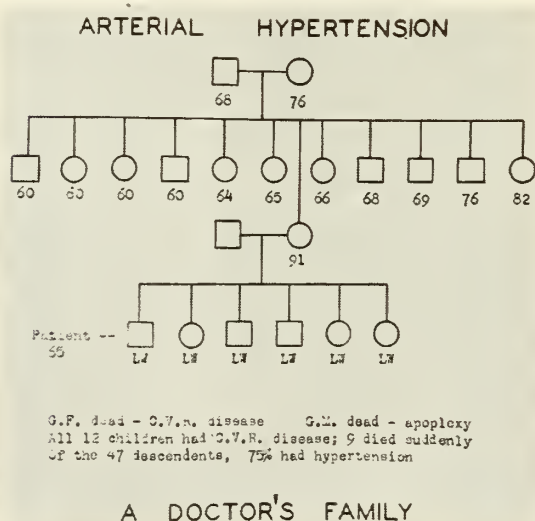


FIG. 4

curs about 6 times as often in males as in females. Night blindness occurs in certain families or groups. There is the classical case of Jean Nougaret, who settled in an isolated district in France in 1637. Since that time there have been 10 generations of his descendants who have suffered night blindness. Through marriage and intermarriage, the entire district in

SHORT BIG TOE AND THUMB



FATHER AND DAUGHTER

FIG. 5

ing indeed are such isolated defects, developing at a certain period in the life of certain individuals in certain families.

Cardiovascular System.—Arteriosclerosis is familial, as every student of the subject knows. In some families it is specifically localized, frequently manifesting itself as isolated examples of cardiac, cerebral, or renal lesions. This doctor's family (Fig. 4) is a classical example of cerebral vascular disease.

Another doctor's family revealed the father with vascular disease of the extremities, the daughter with thrombo-angiitis obliterans, and a son with cramps in the legs. At present, I have a patient with intermittent claudication whose father had the same affection at the same age.

The recognized racial frequency of thrombo-angiitis obliterans is an example of an inheritable disease so common as to include a large number of family groups who have intermarried.

Rheumatic heart disease is commonly familial. Nonrheumatic and nonsyphilitic cardiovascular disease is seen in succeeding generations. The more carefully the family history of cardiovascular patients is studied, the more impressive this viewpoint becomes.

Arterial hypertension is a striking example of inheritable disease. It has been noted in the casual history of 30 per cent of my cases. When the family history of these patients was studied more intensively, a much larger family incidence was discovered.

Arterial hypotension is characteristic of certain types of individuals whose constitutional make-up is inherited.

Mental and Nervous Diseases.—It is axiomatic that 2 mentally defective parents will produce only mentally defective children. The same is seen in certain neurologic diseases. Neurol-

ogists and psychiatrists list 16 diseases as being inheritable and even this list is incomplete.

Diabetes Mellitus.—Diabetes mellitus in a series of 1000 cases gave a family history of 33 per cent of known incidence. If these cases could be traced further, the percentage would be higher.

Renal Glycosuria.—My records show that in 27 cases of renal glycosuria 60 per cent gave a history of diabetes in the immediate blood relatives (Fig. 7).

Sex-linked Diseases.—Hemophilia occurs 50 times in males to once in females. This character, carried by the female who is immune, is transmitted to the male. Sisters of bleeders should not marry. Color-blindness occurs $6\frac{1}{2}$ to 7 times as frequently in males as in females. Color-blind males mated to normal females have normal children and their sons are free. In their daughters' children, however, half of the males will be color-blind. Goiter occurs about 8 times as often in females as in males. Congenital dislocation of the hip occurs 6 times as often in females as in males.

Immunity.—In epidemics only certain individuals are affected regardless of exposure to the infection. Natural immunity resides within such individuals as an inherited character. Resistance to disease has been shown to be an hereditary trait, and according to recent work done at the Rockefeller Institute this resistance can be bred in or out just as other hereditary traits.

Cancer.—Cancer, especially in the mother, is believed by many authorities to have a basis of inheritance. If the work of Maude Slye is cor-

OVERLAPPING SMALL TOE



FATHER AND DAUGHTER

FIG. 6

rect, and it is difficult to believe that it is not, then cancer has a genetic origin. Maude Slye has demonstrated that cancer can be bred in or out of a strain of animals just as any other inheritable character.

Miscellaneous.—There are inherited diseases of the ear, the respiratory system, the muscular system, and the osseous system (Figs. 5 and 6). The hematopoietic system affords examples of inheritable disease as does also the gastro-intestinal system.

THE CELL AND THE ORGANISM

Just as the organism as a whole has a life cycle, so the individual cell has its life cycle. If the life cycle of the cell evolves normally or physiologically, the organism of which this cell is one unit will likewise evolve normally and physiologically. When the individual cell becomes diseased and dies, the organ to which that cell belongs suffers in proportion. Cell form and cell function are both inheritable. However much environment may influence the cell, this influence is always within limitations already set by the inherited character of that cell.

SUMMARY

I have presented only a very few of the evidences which indicate to what extent we inherit anatomic, physiologic, and pathologic determinants in our make-up, and to what extent we inherit form and function.

Aside from the effects of injury and infection, and from the lesser alterations brought on by environment, it is not too wide of the mark to assume that the dominating influences in our bodies and in our minds, in our health and in our diseases, come by the way of inheritance.

If the germ cell, the seed, takes root and grows at all, it will have the characters of the parents from which it came. The seed of the apple or pear will produce only apples or pears and nothing else. These apples or pears may be of luxuriant growth or they may be undersized or misshapen, but the essential characters of these fruits will always be maintained.

Inheritance is the seed and environment is the soil for the moving things in life.

The laws of inheritance are inexorable and it is the inescapable duty of the intelligent physician to understand them and to be guided by them.

In the past, man has devoted far too much thought to eugenics; he has scrambled and fought, mainly, for material things with which to improve his environment, thereby hoping to improve himself. This, as is very evident to-

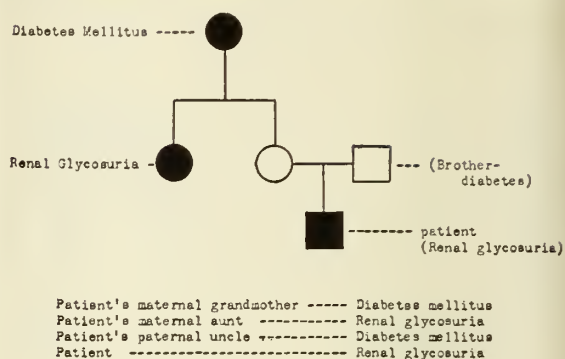


FIG. 7

day, has not been a great success. What man really needs for the future is a greater devotion to eugenics, by which he might improve his inheritance rather than his environment.

A young man inheriting 24 good chromosomes from his father is more likely to succeed in life than one inheriting \$24,000,000.

Union Trust Building.

ABSTRACT OF DISCUSSION

AUGUSTUS S. KECH (Altoona): There are few more debatable points in medicine than that of the possible relationship between heredity and disease. Views have changed but are now being crystallized on this subject. Our forefathers in medicine held that many diseases were hereditary and that diathesis, a constitutional state predisposing to any group of diseases, was present in many individuals.

If disease is an alteration in development, structure, or function, then heredity is a more dominant factor for our consideration than we thought it was in the past. Dr. Barach has given the philosophy of inheritance and the known hereditary malformations under the different systems. It should give us increased interest in examining new cases and reviewing old ones in the light of the known hereditary factors. Too often we are satisfied to know only the age of the parents or, if they are dead, the cause of death. Little thought is given to the type of the individual, whether lateral or lineal. This paper should be a new stimulus for every practitioner.

It thus appears that not only the inheritance of mental traits but also many of those somatic conditions which we call disease are laid down in the chromosomes of the primitive cell—the zygote.

Many believe the chromosomes are bundles of enzymes, the function of which is to stimulate development of cells from the ovum to the mature organism. If this is true, then alterations in these will make alterations in the final results of the mature organism in man, animal, or plant. We are, then, what our chromosomes make us.

The longer a physician practices medicine, the more he looks upon the internal factor, the chromosomes, and the less he looks upon the external factor, the environment. The external factor, environment, plays an important rôle in the whole organism and a dominant part during the life period; consequently, our part in preventive medicine is to guide the next generation toward better chromosomes. This is not the problem of the

faddist in genetics or the psychoanalyst, but the physician. We should take increased interest in heredity.

With the advent of the knowledge of bacteria as a cause of disease, the constitutional factor of the pre-bacterial period was discarded. Now, natural immunity is acquiring increased prominence. It is a growing belief, as worked out on mice at the Rockefeller Institute, that resistance to disease is an hereditary trait like the color of the eyes, the hair, or the skin, and that it is present in skin, muscles, and tissue as well as in the blood. Professor Kahn of Michigan can measure this resistance. This is well illustrated by the immunity of the colored race to yellow fever and the susceptibility of the white race—chromosome immunity. We all recognize the difference in the susceptibility of different races to tuberculosis.

Dr. Heiser of the Rockefeller Institute makes the statement that, when civilized man takes civilization to the primitive people, he usually takes with him the infectious diseases of civilization, and there they blossom out in epidemic and malignant forms with very high mortality. Tuberculosis among the native Indians is a noted example.

Dr. Barach has emphasized the part played by inheritance in the endocrine system. This subject has attracted the attention of medical researchers. Dr. Barach emphasized particularly the internal factor of the primitive linking of sperm and ova and the chromosomes of the parent. The shell shock of the late war is the explosion of a faulty endocrine system. Mr. Wilson writes in the *Lancet* this year that his experience suggests that the hysteric person is born and not made, and adds weight to this suggestion by the evidence of the war in which 10,000,000 combatants underwent identical experience yet comparatively few suffered shell shock.

We must give more consideration to disease from a developmental and inheritance point of view than we have in the past. We are what our chromosomes make us.

REPEATED BLOOD-SUGAR DETERMINATIONS IN CERTAIN CASES OF DIABETES*

EDWARD P. GRIFFITHS, M.D., AND LESTER C. SHRADER, M.D., PITTSBURGH

In the control of most cases of diabetes mellitus, taking a fasting blood-sugar determination in the morning, that is, before insulin or breakfast, has proved adequate. This blood-sugar determination is considered the highest during the 24-hour period. Also in the majority of cases, a single examination of a 24-hour specimen of urine is usually sufficient. However, in some patients, particularly those receiving insulin, it has been proved that more satisfactory arrangements of the amount of carbohydrate in each portion of the diet or better distribution of the dosage of insulin can be made by examination of each voided specimen or examination of specimens collected at stated intervals during the 24 hours. Often the number of injections of insulin has been decreased, that is, instead of insulin before each meal 1 or 2 injections during the day as determined by the time of appearance and amount of sugar in the urine may suffice.

Yet there are a number of diabetic patients included in the severe diabetic group that cannot

OUTLINE OF 6 CASES

Case	Age	Duration of Disease	Admission				Discharge			
			Diet C. P. F.	Insulin	Blood sugar		Diet C. P. F.	Insulin	Blood sugar	
					8 a. m.	7 p. m.			8 a. m.	7 p. m.
1	20	3 years	150-40-85	25-25-25 (75)	651 Coma	40 Shock	75-45-140	7-7-7-7-7 (35)	95	102
2	18	4 years	100-75-135	20-15-15 (50)	392 Coma	61.6	124-90-125	17-12-12-15-12 (68)	102	94
3	32	6 years	50-80-55	20-5-10 (35)	444	70 Shock	74-60-130	6-6-6-6-6 (30)	93	107
4	33	2 years	80-65-95	20-20-20 (60)	512 Coma	175	104-65-95	10-10-10-10-10 (50)	97	103
5	44	3½ years	100-60-100	20-15-25 (60)	384	65 Shock	175-70-125	7-7-7-7-5 (33)	126	81
6	63	4 years	60-65-175	10-0-5 (15)	322	158	90-60-125	15-10-10-10 (45)	139 (Urine sugar-free)	151

* Read before the Section on Medicine of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 4, 1934.

HOSPITAL No. 1

Admitted April 25, 1929

Discharged May 16, 1929

Age—18; weight—84 pounds; height—5 feet; requirement per square meter—912 calories;
surface area—1.28 square meters

Date	Weight in pounds	Diet	Glucose equivalent (grams)	Per cent of sugar in urine	Units of insulin	Morning blood sugar (mg. per 100 c.c.)
1929 April 25	86	Maintenance C. P. F. 35-30-110 (1250 calories)	53.5	4.0	0-0-0	332
April 28	..	Coma: 4 p.m.—500 c.c. of 5 per cent glucose in n/s and 25 units of insulin; 5 p.m.—25 units of insulin; 6 p.m.—25 units of insulin; 6:30 p.m.—6 ounces of orange juice Regained consciousness at 6:30 p.m.				
April 29	..	Alternate 3d hour feeding—100 c.c. of orange juice and 200 c.c. of sugar-free eggnog. Insulin units—15 before each feeding. Total units of insulin—120				
April 30	..	Third hour feeding as shown above, with 5 units of insulin before each feeding.				
May 1	..	80-40-80 (1200 calories)	104.0	....	15 15-15	....
May 2	..	80-40-80 (1200 calories)	.....	....	.....	533
May 3	..	80-40-80 (1200 calories)	.....	....	.....	400
May 6	..	80-40-80 (1200 calories)	.....	....	15-15-15	222
May 8	..	80-40-80 (1200 calories)	.....	....	15-15-15	272
May 10	..	80-40-80 (1200 calories)	.....	....	15-15-15	333
May 12	..	80-40-80 (1200 calories)	104.0	....	15-15-15	380
May 13	..	80-60-100 (1460 calories)	124.8	....	15-15-15	....
May 14	..	80-60-100 (1460 calories)	.....	....	15-15-15	190
						Note: Insulin units total 45

be controlled by these usual procedures, and for this reason are often considered as refractory. Belonging to this group, particularly, are the young and arteriosclerotic patients who need constant supervision and careful arrangement of their insulin-diet régime. Also included are those patients with various types of infections, gangrene, *etc.*, in which cases the severity of the diabetes may be lessened by treatment or elimination of the complication, but prior to this they present quite a problem to the physician. In a certain number of these cases, the fasting blood-sugar determination taken in the morning remains persistently high, with little or no variation regardless of the distribution of the carbohydrate in the diet or the dosage of insulin during the day. The day urine remains sugar-free—collectively or at intervals—whereas varying amounts of sugar are present in the specimens collected during the night. These patients are usually admitted to the hospital as known severe

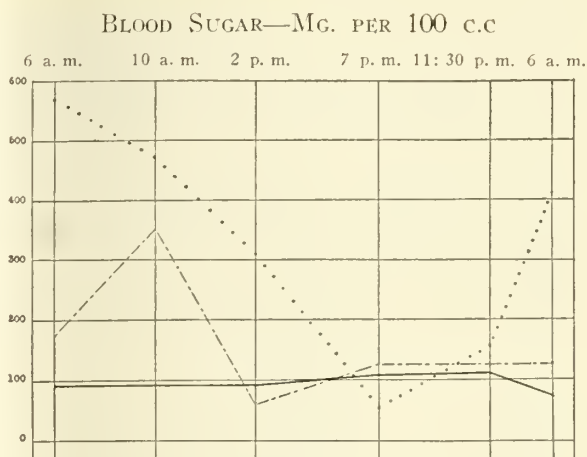
diabetics, and from the history are labeled uncontrollable.

If an attempt is made to control their diabetes by simply increasing the amount of insulin given during the day, regardless of the arrangement of their diet, they will invariably show signs of hypoglycemic shock in the late afternoon or evening. These symptoms usually occur about 3 to 4 p. m., or 8 to 10 p. m., depending upon when the larger doses of insulin are given or when the maximum accumulative effect is reached. If the blood-sugar determination is taken at intervals during the 24-hour period, there will be a marked fluctuation of the blood-sugar curve. As previously stated, the morning blood-sugar level is persistently high, 300 to 500 mg., and signs and symptoms of coma may be present. Late in the day, however, there is a definite drop in the blood-sugar reading, often being as low as 40 to 60 mg., at which time there may be signs and symptoms of hypoglycemic shock.

These patients can be controlled only when consideration is given to the urine findings as well as to the blood-sugar level at definite intervals during the 24 hours. The urine can be rendered sugar-free and the blood sugar maintained within normal limits throughout the 24-hour period by arranging the diet into 4 or 5 feedings during the 24 hours with an adequate amount of insulin preceding each feeding. On this régime, the total amount of insulin previously given may be reduced considerably, even to one-half, without any reduction in the sugar equivalent of the diet.

Although it may be necessary to have a blood-sugar curve for the entire 24 hours in some of the more refractory cases, nevertheless, in most cases a blood-sugar determination in the morning and again 2 to 3 hours after the evening meal will often suffice. In fact, much time may be saved in all cases of diabetes entering the hospital by taking a routine blood-sugar determination in the morning and again 2 to 3 hours after the evening meal, when treatment is instituted. This procedure should be repeated if at any time during the course of treatment there is a marked rise in the blood-sugar reading.

In some of the cases, as Allen has suggested, a small amount of insulin on retiring may be sufficient. In others, an additional feeding, following the insulin at 10 or 11 p. m., may be all that is necessary to render the urine sugar-free and maintain the blood-sugar curve within or



Time of Taking Blood Sugar

DOTTED LINE—3 feedings (8 a. m., 12 m., 5 p. m.)—total units of insulin=60.

BROKEN LINE—3 feedings (8 a. m., 12 m., 5 p. m.)—plus 8 ounces of orange juice and 15 units of insulin at 12 midnight—total units of insulin=75.

STRAIGHT LINE—present feedings (8 a. m., 12 m., 5 p. m., 10 p. m., 3 a. m.)—total units of insulin=35.

near normal limits. However, there are a few stubborn cases that will not respond when treated in this manner. Although there is some decrease in the morning blood sugar, nevertheless, it remains high and sugar is present in the night urine. It is in this type of case that 5 feedings in 24 hours are apparently indicated.

In our cases the feedings were given at 8 a. m., 12 m., 5 p. m., and 10 or 11 p. m. The

HOSPITAL No. 2

Admitted Oct. 10, 1931

Discharged Dec. 5, 1931

Age—19; weight—75 pounds; height—5 feet; requirement per square meter—912 calories;
surface area—1.28 square meters

Date	Weight in pounds	Diet C.P.F.	Glucose equivalent (grams)	Urine sugar		Units of insulin	Morning blood sugar (mg. per 100 c.c.)
				Per cent	Grams		
1931 Oct. 10	84	(?—? ?)	(?)	(?)	(?)	20-20-20	500
Nov. 6	85	150-40-85 (1525 cal.)	181.5	0.0	0.0	20-20-20	332
Nov. 9	...	150-40-85 (1525 cal.)	181.5	8.90	140.0	20-20-20	420
Nov. 13	...	150-40-85 (1525 cal.)	181.5	6.10	25.8	20-20-20	444
Nov. 16	85	150-40-85 (1525 cal.)	181.5	2.50	87.5	20-20-20	466
Nov. 20	80	150-40-85 (1525 cal.)	181.5	1.65	29.9	25-25-25	520
Nov. 22	...	150-40-85 (1525 cal.)	181.5	1.00	22.7	25-25-25	520
Nov. 25	...	150-40-85 (1525 cal.)	181.5	1.40	7.72	25-25-25	520
Nov. 27	80	150-40-85 (1525 cal.)	181.5	0.60	20.2	25-25-25	460
						Note: Insulin units total 45	

Feeding at usual time during the day (8 a. m.—12 m.—5 p. m.)

All blood-sugar determinations taken before breakfast,

HOSPITAL No. 3 (MAGEE HOSPITAL)

Admitted Dec. 7, 1931

Age—20; weight—84 pounds; height—5 feet; requirement per square meter—912 calories;
surface area—1.28 square meters

Date	Weight in pounds	Diet C. P. F.	Glucose equivalent (grams)	Urine sugar		Ace- tone	Dia- cetic	Units of insulin	Morning blood sugar (mg. per 100 c.c.)	CO ₂ C/P. Volume Per cent
				Per cent	Grams					
1931										
Dec. 7	75	50-35-130 (1510 cal.)	83.3	.....	.....	+	+	0-40-20	651	27.0
Dec. 9	..	50-35-130 (1510 cal.)	83.3	4.16	52.00	+	+	25-25-25	450	....
Dec. 11	..	50-35-130 (1510 cal.)	83.3	3.60	5.10	+	+	30-25-25	489	....
Dec. 12	..	50-35-130 (1510 cal.)	83.3	.....	.....	..	..	30-30-25	40 (11:30 p.m.)	....
Dec. 13	..	50-35-130 (1510 cal.)	83.3	3.10	15.50	+	0	5-25-15	588	....
Dec. 15	82	50-35-130 (1510 cal.)	83.3	6.57	31.00	+	0	25-25-15	38 (7:00 p.m.)	....
Dec. 16	..	50-35-130 (1510 cal.)	83.3	5.00	25.00	+	0	25-25-15	512	....
Dec. 19	..	50-35-130 (1510 cal.)	83.3	.....	.....	+	0	25-25-15	454	....
Dec. 22	84½	50-45-140 (1640 cal.)	90.0	5.00	14.50	0	0	30-20-10	.....	....
1932										
Jan. 5	88	50-45-140 (1640 cal.)	90.0	1.25	6.25	0	0	30-20-10	548	....
Jan. 9	89½	50-45-140 (1640 cal.)	90.0	.....	.....	0	0	30-20-10	571.4—(A)	....
Jan. 10	..	50-45-140 (1640 cal.)	90.0	6.25	65.60	0	0	30-20-10	526	....
Jan. 12	..	50-45-140 (1640 cal.)	90.0	3.13	13.15	0	0	30-20-10	570	....
Jan. 14	..	74-45-140 (1736 cal.)	114.0	1.73	11.10	0	0	30-20-10-10	178—(B)	....
Jan. 18	..	74-45-140 (1736 cal.)	114.0	0.00	0.00	0	0	10-10-10-10- 10	125—(C)	....
Jan. 20	..	74-45-140 (1736 cal.)	114.0	0.00	0.00	0	0	7-7-7-7-7	95—(D)	....
Jan. 27	95	74-45-140 (1736 cal.)	114.0	0.00	0.00	0	0	7-7-7-7-7	104	51.2

total amount of carbohydrate, protein, and fat was equally divided into 4 portions, and if an additional feeding was necessary orange juice with the sugar equivalent corresponding to one portion of the diet was given at 3 a.m. Insulin was given with each feeding. As a rule, the patients who had to be awakened at 3 a.m. did not object to this procedure, because generally they felt improved on this régime.

That this type of patient is not infrequently seen is apparent from the fact that, of 48 routine diabetic admissions to a general medical service, 6 patients required more than 3 feedings a day.

The following case history (Case No. 1 in above outline) is given in detail as an example of the results obtained with the treatment suggested.

CASE REPORT

R. D., single white female, age 20, was admitted to Magee Hospital on Dec. 6, 1931. Three years previously, November, 1928, the patient first consulted a

physician for symptoms of excessive thirst, loss of weight, voracious appetite, and the passage of large quantities of urine. She was told that she had diabetes after urinalysis had been made and was put on a diet containing very little carbohydrate. After the symptoms had persisted for 3 months (February, 1929), she was instructed to take 15 units of insulin before each meal.

Prior to November, 1928, the patient weighed 120 pounds. In November, 1928, she weighed 100 pounds, and in February, 1929, 98 pounds. After taking insulin, she gained in weight and was free from symptoms.

In April, 1929, she was sent to the hospital (No. 1) for correction of diet. She remained there for 3 weeks and was given instructions as to how to prepare her diet. She continued to take 15 units of insulin 3 times a day.

She began to lose weight and in September, 1931, was admitted to hospital (No. 2) weighing 84 pounds, loss of weight being the only symptom. She remained there for 8 weeks, and during that time the lowest blood sugar was 332 mg., and the highest was 520 mg. She was transferred to the Magee Hospital (No. 3) on Dec. 6, 1931, her weight being 75 pounds.

URINE BLOOD SUGAR COMPARISON

(A) Feedings usual time during the day (8 a.m.—12 m.—5 p.m.)

Calories—1640

Time (Jan. 8, 1932)	Urine sugar (qualitative)	Blood sugar (mg. per 100 c.c.)	Units of insulin
10:00 a.m.	Positive	470.5	8:00 a.m.—30
2:00 p.m.	Positive	307.5	12:00 m.—20
7:00 p.m.	Negative	55.0	5:00 p.m.—10
11:30 p.m.	Negative	160.0	.....
2:00 a.m.	Positive	408.0	.....
6:00 a.m.	Positive	571.4	.....
			Total—60

(B) Feedings usual time during the day (8 a.m.—12 m.—5 p.m.—12 midnight) and 8 ounces of orange juice at 12 midnight

Calories—1736

Time (Jan. 13, 1932)	Urine sugar (qualitative)	Blood sugar (mg. per 100 c.c.)	Units of insulin
10:00 a.m.	Positive	360.0	8:00 a.m.—30
2:00 p.m.	Negative	66.6	12:00 m.—20
7:00 p.m.	Negative	121.0	5:00 p.m.—10
11:30 p.m.	Negative	121.0	.....
2:00 a.m.	Negative	119.0	12:00 m.—15
6:00 a.m.	Negative	178.0	.....
			Total—75

(C) Five-hour feedings (8 a.m.—12 m.—5 p.m.—10 p.m.—3 a.m.)

Calories—1736

Time (Jan. 18, 1932)	Urine sugar (qualitative)	Blood sugar (mg. per 100 c.c.)	Units of insulin
10:00 a.m.	Negative	72.0	8:00 a.m.—10
2:00 p.m.	Negative	52.0	12:00 m.—10
7:00 p.m.	Negative	50.0	5:00 p.m.—10
11:30 p.m.	Negative	62.5	10:00 p.m.—10
2:00 a.m.	Negative	46.0	.....
6:00 a.m.	Negative	125.0	3:00 a.m.—10
			Total—50

(D) Five-hour feedings (8 a.m.—12 m.—5 p.m.—10 p.m.—3 a.m.)

Calories—1736

Time (Jan. 20, 1932)	Urine sugar (qualitative)	Blood sugar (mg. per 100 c.c.)	Units of insulin
10:00 a.m.	Negative	95.0	8:00 a.m.—7
2:00 p.m.	Negative	96.0	12:00 m.—7
7:00 p.m.	Negative	102.0	5:00 p.m.—7
11:30 p.m.	Negative	110.0	10:00 p.m.—7
2:00 a.m.	Negative	74.0	.....
6:00 a.m.	Negative	95.0	3:00 a.m.—7
			Total—35

The diet was carbohydrate 150, protein 40, and fat 85, with insulin 25-25-25.

On entering the hospital (No. 3), she complained of vertigo, ataxia, loss of consciousness, and double vision, which would usually be noticed in the afternoon or evening.

The physical examination was essentially negative except for slight edema of the retina of both eyes. The laboratory findings were as follows: Blood count, normal; Kahn blood test, negative; phthalein test—total for 24 hours—47.4 per cent.

Additional laboratory data and summary of treatment are contained in the accompanying tables.

SUMMARY AND CONCLUSIONS

There is a group of severe diabetic patients who will show a persistently high morning blood-sugar level and at the same time a glycosuria, regardless of the arrangement of their diet during the day or the amount of insulin given. These patients may show signs and symptoms of both coma and hypoglycemic shock during the 24-hour period. The blood-sugar curve can often be kept within or near normal limits during the 24 hours by frequent feedings, with small doses of insulin preceding each feeding. In order to recognize this type of patient promptly, it is suggested that a routine blood-sugar determination be made in the morning and again 2 hours after the evening meal in all cases of diabetes when they are first seen. In the more stubborn cases, a blood-sugar curve of frequent determinations during the entire 24-hour period may prove helpful in determining the arrangement of the diet and insulin dosage, particularly if any operative procedure is contemplated. This type of patient may be seen quite frequently on routine admission of diabetics into the hospital.

Medical Arts Building.

ABSTRACT OF DISCUSSION

EDWIN B. RENTSCHLER (Reading): As Dr. Griffiths has said, the type of patient under consideration is often labeled uncontrollable and rightly so if treatment is attempted without first obtaining an adequate picture of the blood-sugar curve. I saw such a case about a month ago. The history revealed that the morning blood sugar was persistently high (300 to 500 mg.), but later in the day, usually in midafternoon or several hours after the evening meal, the patient had typical symptoms of an insulin reaction. Much time and money had been spent in an effort to eliminate these reactions and at the same time reduce the morning hyperglycemia and glycosuria, but the condition of the patient had apparently become progressively worse.

The history therefore suggested the type of case that Dr. Griffiths has just now portrayed and, as was to be expected, the blood-sugar curve for 24 hours revealed a high morning blood-sugar level (400 to 500 mg.) with a low blood-sugar level (40 to 60 mg.) in afternoon and early evening. With this information, the treatment was relatively simple and carried out along the lines suggested by Dr. Griffiths.

Dr. Griffiths spoke of the necessity of giving 4 and, in one of his cases, 5 feedings a day. Usually, of course, 4 feedings supplemented with the proper dose and distribution of insulin will suffice. Occasionally, however, in spite of such an arrangement, the morning blood-sugar level will be too high and morning glycosuria will persist as it did in one of the cases Dr. Griffiths described. Under these circumstances, I successfully avoided the necessity of the fifth, or 3 a.m. feeding, by having the patient take the morning dose of insulin one hour before breakfast. This simple procedure may not always be adequate in such cases but

seems well worth trying in order to eliminate the less practicable 3 a.m. feeding.

I should like to ask Dr. Griffiths what his experience has been in this connection.

DR. GRIFFITHS (in closing): We have given insulin earlier, but in this particular case, by taking the blood-sugar determination as early as 6 a.m., it was too high. We usually set the alarm clock for the proper time and had the patient take an orange. This helped a great deal. I appreciate Dr. Rentschler's suggestion, but in this particular case it could not have been carried out very well.

PREGL'S SOLUTION IN THE TREATMENT OF OCULAR CONDITIONS*†

ALFRED COWAN, M.D., PHILADELPHIA, AND JAMES S. JORDAN, M.D., SCRANTON

On December 19, 1929, one of us (Cowan) read a paper before the Section on Ophthalmology of the College of Physicians in Philadelphia on the effect of subconjunctival injections of Pregl's solution in gonorrheal ophthalmia (*Arch. Ophthalm.*, Mar., 1930, V. 3, p. 325). The report was based on a study of a series of 6 cases of gonorrheal ophthalmia in adults who were treated at the Philadelphia General Hospital. The results obtained were good. Since that time Pregl's solution has been tried not only in cases of gonorrheal ophthalmia but in numerous other eye diseases, often with remarkably good effect. It is now considered by a number of Philadelphia ophthalmologists as an important part of their routine treatment of certain conditions. No detailed report, however, has been made. Accordingly, in order to put this method of treatment on record, selected patients with various diseases were given Pregl's solution in addition to the usual treatment. These patients were studied, and the condition recorded from day to day during the period of activity of the disease and for a reasonable time after its subsidence.

The original technic was followed: After thorough irrigation of the eye with boric acid or saline solution and the instillation of a drop of 1 per cent holocaine hydrochloride, 15 minims of Pregl's solution are slowly injected under the conjunctiva of the globe. If the conjunctiva is chemotic, the highest point of the swelling is chosen for the needle puncture. The injection is usually given every day, but the frequency may be varied according to the progress of the disease. A feeling of discomfort occurs after the injection but passes off after about 15 minutes. Sometimes the patient complains of extreme pain and Jordan has modified the technic

to the extent of drawing into the needle, after the proper amount of Pregl's solution has been drawn, 1 minim of novocaine. This is usually effective in lessening the pain since the anesthetic precedes the major injection. In addition, ice compresses are applied until the pain subsides.

The preparation keeps for a certain length of time if the ampule is properly sealed, but it is better to use a fresh solution for each injection. Efficient Pregl's solution is amber in color; any variation from this is an evidence of deterioration.

This brief report is based on an analysis of 69 selected cases. A larger number was studied for the purpose of this communication, but because the final results could not be ascertained on account of lack of coöperation on the part of the patients and for other reasons, the records could not be used.

There were certain instances with perforating wound of the cornea in which it was thought advisable to remove the eye for fear of sympathetic ophthalmia. Although these are not included in this series, in several there was definite subsidence of the acute symptoms after a few injections of Pregl's solution.

For the sake of brevity the cases are not reported individually, but grouped and discussed as follows:

Uveitis	27 cases
19 as postoperative complication	
2 with corneal involvement	
4 endogenous	
2 traumatic	
Keratitis	42 cases
24 various types of ulcerative keratitis	
14 hypopyon keratitis	
3 Mooren's ulcer	
1 lime burn	

In the cases of postoperative uveitis the average number of injections of Pregl's solution was 4.1 given over a period of 6.4 days. The least

* Read before the Section on Eye, Ear, Nose, and Throat Diseases of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 4, 1934.

† From the Laboratory of Ophthalmology, Wills Hospital.

number was 1, and the greatest 10 over a period of 24 days. Generally, the results in this group were good. In one in which 4 injections were given over a period of 4 days, the usual routine treatment had been previously carried out for 6 days without any apparent change. Pregl's solution was used with almost immediate improvement, which continued until the eye was perfectly quiet after the fourth injection on the fourth day.

In the 2 cases of uveitis with corneal involvement the average number of injections was 3.3 over a period of 6 days. One of these patients was discharged with visual acuity of $\frac{6}{12}$, and the other with $\frac{6}{15}$.

In the 2 traumatic cases the average number of injections was 3 in 5 days. One of the eyes was blind from beginning to end; the other eye with $\frac{6}{60}$ vision at first had $\frac{6}{15}$ vision when cured.

The average number of injections in the endogenous group was 4.7 over a period of 24.2 days. In one of the cases 5 injections were scattered over a period of 27 days. This is the reason for the seemingly few injections over a long period. One patient was discharged with visual acuity of $\frac{6}{15}$, one with $\frac{6}{9}$, one with bare light perception. One of this group, whose case probably should not be included in the series and to whom only 2 injections were given, had involvement of the sinuses. Drainage of the antra gave immediate relief. It is a question whether Pregl's solution was a factor.

In the cases of ulcerative keratitis of various types the average number of injections was 6.6 over a period of 11.7 days. The poorest vision, $\frac{6}{60}$, resulted in 4 instances. In 3 eyes the vision was $\frac{6}{30}$. The others had better than $\frac{6}{20}$ finally.

In the group of hypopyon ulcers 8.9 injections were given over an average of 18.6 days. Three of the eyes required enucleation. The rest were saved and among these, one distinguished hand movements at 1 foot, 2 had $\frac{6}{60}$ vision, 5 had $\frac{6}{30}$, 2 had $\frac{6}{21}$, and the other $\frac{6}{12}$. The results in this series are extraordinarily good.

In the 3 cases of Mooren's ulcers the average number of injections was 7.6 over a period of 16 days. The visual acuity in one of these was $\frac{6}{30}$ on the patient's discharge, and in each of the others it was $\frac{6}{9}$. In 2 the eyes have been quiet for $2\frac{1}{2}$ months, and in the other for 1 year.

The patient with lime burn of the cornea had 12 injections in 22 days and was discharged with a visual acuity of $\frac{6}{12}$.

It should be stated that most of the cases used for this analysis were treated over a longer period than indicated by the number of injections

and the time, but for the purpose of the paper it was thought unnecessary to include this detail. The end results are all-important.

CONCLUSIONS

Pregl's solution is a complex hypo-iodite preparation and liberates nascent iodine when it comes in contact with any weak acid medium as is always found in inflamed tissue. Its beneficial action is obtained not only from the free iodine liberated, but injected subconjunctivally it acts as a lymphagogue and produces a mechanical counterirritation. The best effect obtained in the use of Pregl's solution is in checking the progress of corneal opacification. It seems that, regardless of the primary condition, injections of Pregl's solution retard, almost from their earliest use, a growing opacity of the cornea. It has been found to be more useful, therefore, in those diseases in which opacities of the cornea are the most-to-be-feared sequelae. This has been demonstrated in the case with lime burn of the cornea, a condition in which so often, in spite of everything that is done for the patient, the corneal opacity eventually becomes complete. Very often the effect on the cornea is almost immediate, and in many a decided change for the better can be seen within 12 hours, frequently demonstrated by a typical peculiar metallic luster of the cornea and surrounding conjunctiva. In addition, it has proved efficacious in affections of the uveal tract.

At first, it may seem that 15 minims of fluid injected under the conjunctiva is too great an amount, but large quantities are necessary and should be used to get results. Injections of 2 or 3 minims are not effective.

It might be inferred from this paper that in our enthusiasm for this drug we are suggesting that it is an infallible cure-all. This is far from our intention, but we are satisfied that it is an extremely useful drug to be tried in all diseases involving the cornea, the uveal tract, or both.

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ABSTRACT OF DISCUSSION

LEIGHTON F. APPLEMAN (Philadelphia): From observations made upon the use of Pregl's solution in several cases of severe infection and corneal ulcerations at Wills Hospital, I have been very favorably impressed by the prompt improvement obtained. Usually within 24 hours the conditions were distinctly better, and healing of the ulcers progressed promptly with less scarring than usually is seen with the older cauterants commonly employed in similar cases. Dr. Cowan has called attention to a very valuable addition to the means of combating infections without discomfort to the patient or the injurious after-effects of other radical procedures.

In one of my cases the patient complained rather

bitterly of the subconjunctival injections, but this was attributed to the fact that the eye had been inflamed for a considerable time and, as often happens, the conjunctiva had become hypersensitive. The inflammation nevertheless yielded rather promptly to the medication and the patient retained his eye, a result which I had despaired of when he was first seen.

LEWIS P. GLOVER (Altoona): About July first I saw a man with a corneal ulcer from a scratch by a tree limb. Several different types of treatment were used without results. He was sent to Wills Hospital, and Pregl's solution was used. In about 4 days the ulcer began to heal. At present the vision is 9/10. Since then I have used Pregl's solution successfully in 5 cases. I used it in one case in which the patient had a severe burn of the cornea from a caustic solution. Routinely everything else was tried for 10 days, but when Pregl's solution was used the epithelium regenerated almost immediately and the patient now has one-third vision. In spite of what is said about the slight reaction, it is not emphasized enough. There is severe pain after the use of Pregl's solution.

J. MILTON GRISCOM (Philadelphia): May I ask those who are active in this work if they have had any experience with Pregl's solution in postoperative cataract infection?

GEORGE H. CROSS (Chester): I have one patient on whom I have used it over a long period of time, and there is a good deal of tightening of the cornea; it seems to be adherent to the sclera, and I fear that later this condition will produce bad results. It is now hard to get a needle into the area in which the Pregl's solution was used.

DR. COWAN (in closing): All postoperative complications were classed under uveitis. There were sev-

eral cases in which the conjunctiva seemed to be adherent to the globe. However, if subconjunctival injection is given every day for 30 consecutive days, some adherence should be expected from Pregl's solution or anything else. Generally speaking, it is of no consequence.

DR. JORDAN (in closing): The first injection is given in the upper and outer quadrant. Here the conjunctival tissue is most abundant. The next injection is given in the outer and lower quadrant, the third in the upper and inner, and the fourth in the lower and inner quadrant. In this manner each area has a 3-day rest period if the injection is given daily.

I also wish to stress one of the points Dr. Cowan mentioned, namely, the remarkable clearing of the cornea in many cases very shortly after the injection. There is a definite macroscopic clearness with which those of you who have used the drug are undoubtedly familiar.

Concerning the local effect on the conjunctiva, in this entire series there never was any conjunctival sloughing. In several of the cases which required enucleation there was an opportunity to study in a gross manner the effect on the conjunctiva. In 3 of the 7 cases there was thickening of the conjunctiva and adhesion to the sclera. In the remaining 4 there was no evidence of local tissue change. Most of the patients were examined several months after their course of treatment, and in no case was there evidence of any conjunctival abnormality.

Concerning the severe pain, in many of these cases there was some pain, but as in all other conditions, the amount of pain depended on the individual. In these cases we added 3 minims of novocaine and, as a result, some were absolutely painless.

MANAGEMENT OF UNDERWEIGHT CHILDREN*

GEORGE J. FELDSTEIN, M.D., PITTSBURGH

The consideration of the methods of management of underweight children involves a complexity of factors. It is not always an individual problem: many phases of life, political, economic, racial, hygienic, educational, environmental, and psychologic, are involved. As an example may be cited the profound influence of the depression of the past few years. In Pennsylvania alone, 1,000,000 children are on emergency relief. The poorer children are taken care of by the various local relief agencies ordinarily, but in times of stress these fail and state or government relief must be added.

According to Chapin and Royster malnutrition is a condition in which the child is undernourished for his height and age, lacks muscle tone, is anemic, and shows disturbance of the nervous system and other organs. Such children have

an anxious expression, dark circles under the eyes, pallor, often nasopharyngeal obstruction, and the typical fatigue posture with round shoulders, lateral curvature, flat chest, flabby muscles, abdominal ptosis, and flat feet. They tire easily, are very irritable, and lack physical and mental endurance although their mentality may be above the average. They have a tendency to develop acute infections and anemia.

A child is generally considered to be underweight if he is 7 per cent or more below the average weight for height and age according to the Baldwin-Wood Tables. Weight for age is not a guide; weight for height is a better criterion, but not infallible. However, one must consider other factors, such as race, heredity, etc., and not rely altogether on charts in pronouncing a child underweight. Recently the American Child Health Association offered as a better substitute what is termed the ACH index of nutritional status (Franzen and Palmer).

* Read before the Section on Pediatrics of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 3, 1934.

PREVENTIVE TREATMENT OF ESSENTIAL CASES

This usually should be started in infancy by the establishment of regular feeding habits, by feeding the infant solid food early enough to get him accustomed to it even if temporary starvation is necessary. The use of the cup should be started before the end of the first year. Attention may be called to the interesting work of Clara M. Davis on self-selected diets, in which she allowed infants to select their own foods from a comprehensive assortment of raw and cooked foods placed before them, and found that they voluntarily selected a sufficiently nutritious diet not only to maintain growth but also to cure early rickets. Perhaps the most neglected period in the life of the child is from age 2 to age 6; at this time the carefully regulated regimen of infancy is broken and faulty food and health habits are formed.

TREATMENT

Emerson lists as the 5 chief causes of malnutrition in children in the order of their importance: (1) Physical defects, especially nasopharyngeal obstruction; (2) lack of home control; (3) overfatigue; (4) improper diet and faulty food habits; (5) faulty health habits. This discussion will consider only cases of essential malnutrition, excluding those cases having definite disease conditions.

Physical Defects.—The treatment of these cases is so interwoven with the etiologic factors that it is advisable to consider both together. The first requisite in treating the underweight child is to make a complete physical examination. Proper dental care is important. All foci of infection, whether in teeth, tonsils, adenoids, sinuses, or elsewhere, must be eradicated.

In addition to a complete physical examination, Emerson recommends a mental and social examination including a complete family history, birth record, and an investigation of the general health and habits. He suggests a 48-hour record of the child's diet and activities, preferably taken on Friday and Saturday for the school child so as to give a complete picture of what the child does and eats on a school day and on a day when he does not go to school. From this record an analysis of the faults in the child's mode of life may be obtained. In some cases it is advisable to put the child in charge of a trained nurse who can often determine errors that are being made in handling the child and in his environment that otherwise might be overlooked by the physician.

Lack of Home Control.—Lack of home control is in fact directly or indirectly responsible

for all the other causes of malnutrition. The most frequent errors due to lack of home control are: (1) Failure to teach the child self-reliance and readiness to cooperate; (2) overindulgence producing the "spoiled" child, especially in the case of the only child and the well-to-do; (3) ignorance, poor environment and housing, neglect, poverty, domestic difficulties between the parents, or anxieties and difficulties that oppress the parents; (4) lack of proper discipline and failure to supervise and correct the child's mode of life.

Overfatigue.—Overfatigue very frequently is found to be the chief cause of malnutrition and should always be suspected if the child fails to gain after known causes for the loss of weight have been removed. It is very common in the nervous type of child, usually of higher intelligence and mentality than the average, who is overactive in play, work, and school and all too often is pushed into a multiplicity of endeavors by nervous parents overanxious to have their child make a good showing.

The part of the day given to play, work, and school must be regulated. The child must get up in time to eat breakfast leisurely. Too much school and night work, extra religious, dancing, or language lessons are to be prohibited. The radio has been a great factor in causing children to stay up too late, and the type of mystery and crime stories on hours supposed to be for children has been leading to nervous and mental overstrain and sleeplessness.

Showing off the younger child to visitors, allowing him to play with children of superior physical strength and treating him like an adult by taking him on week-end trips is harmful. The child should have mid-morning and mid-afternoon rests even if he does not sleep during this period, and he should spend 10 to 12 hours daily in bed. The younger child may be disturbed in his rest by the father or others coming in late at night or early in the morning if he sleeps in the same room with the parents or other children. Bier is correct in saying that rest in bed for a prolonged period followed by semi-bed rest is the most important treatment for the overfatigued and underweight child, diet, sunlight, and fresh air following closely in importance in the order named. During the rest periods, the fatigue posture, which is so commonly found in underweight children, may be corrected to some extent by having the child lie on his face with a pillow under the abdomen part of the time and on his back with a pillow under the shoulders the rest of the time. In addition corrective exercises may be given. A

very valuable pamphlet entitled "Posture Exercises" may be obtained from the Children's Bureau of the United States Department of Labor. Exercise, preferably outdoors, must be limited by the child's endurance.

The school is often an important factor in producing overfatigue due to pressure which causes mental and nervous strain. Removal from school is perhaps too often advised since some of the spoiled children do better if sent to kindergarten or school. It may be found that insufficient time is allowed for lunch, which is often made up of indigestible food.

Improper Diet and Faulty Habits.—Children need a diet properly balanced in protein, fat, carbohydrate, salts, and vitamins, properly cooked and suitable to the child's digestion. Vitamin deficiency cases do not properly come under the category of malnutrition. Ignorance as to diet and comparative food values has led many parents to pay high prices for unbalanced and undesirable foods. Faulty racial or local food habits lead to poorly nourished children. A pamphlet outlining an adequate low-cost dietary for the family may be obtained from the welfare agencies of the state.

The chief errors in food habits are the use of coffee and tea, or sweets between meals; irregular meals and irregular amounts at different meals, or too frequent feeding or haste in eating; not eating breakfast; underfeeding and omitting cereals and milk. On the other hand, too much milk may be given to the exclusion of solid food to children over age 1, tending to produce anorexia, anemia, and underweight. Too prolonged breast feeding is even more deleterious in its effect. In cases of excessive milk drinking, the milk should be cut off entirely for a time. In an endeavor to build up children grade-A milk, cream, and butter are forced; in many children, especially those with fat intolerance, the anorexia is thus made worse.

Anorexia has been defined as a subjective complaint of constant loss of appetite persisting long enough to cause objective signs of malnutrition. Perhaps anorexia is more common in the well-to-do, especially in the only child spoiled by parents and grandparents. These children develop what has been well termed by Hector Cameron as negativism. Some are cases of neurasthenia due principally to congenital or inherited constitutional weakness. No satisfactory evidence is at hand to show that glandular therapy does any good in these cases on the theory that they are of endocrine origin.

An inherited neurotic constitution and nervous tension in the home environment combined

with poor home training, lack of discipline, and conflicts between the parents predispose to this condition. These spoiled children are usually overactive, do not take sufficient rest periods, and are often too tired to eat. In others there is a desire to be important; thereby the child attracts attention, gets something he wants, or enjoys seeing the parents become irritated. The treatment is psychologic; coaxing or forcing children to eat rarely succeeds. The best policy is to put the food in front of the child, give him a reasonable time to eat it, then take it away without letting him know that you care whether he eats or not. If other methods have failed, putting the child in charge of a stranger and changing the environment, as, for instance, sending him to distant relatives, to the seashore or mountains, or to a summer camp, may succeed. For orphan children foster home care under proper supervision is preferred to institutional care. The anorexia should not be discussed in the child's presence. One should help the child to get acquainted with new foods and flavors, giving only a small amount of food the first time and gradually increasing the quantity. The older members of the family should set a good example in eating. The child should be praised when he eats well. A good method is to keep a record, on a calendar or special card which may be obtained from cereal firms, by placing a gold star on the dates when the child eats well. The physician periodically inspects the card in the child's presence. Using fancy plates with pictures on them and making desserts in unusual shapes may aid. One should make sure, however, that the anorexia is not due to the onset of an illness or to food aversions, the result of an individual idiosyncrasy or allergy.

As Brenneman states, children have waves of appetite and may eat only one kind of food for a time, then another; but in time their diet tends to balance itself by the week if not by the meal. The caloric content of the food should be checked, but the mother should feed food, not calories. If anorexia is present or only small amounts of food are taken, concentrated foods made with powdered or evaporated milks, or cereal cooked with whole milk gives a high caloric value in small bulk.

Faulty Health Habits.—An inquiry into every detail of a child's life is necessary to find the cause of malnutrition. This includes rest, exercise, fresh air, sunshine, bathing, proper clothing and shoes, and well-ventilated, properly heated rooms. Sleeping on porches or under window tents, open air schools, and summer camps are of great value.

In the older child such bad habits as cigarette smoking, alcoholic indulgence, self-abuse, late hours, too many movies, parties, dances, *etc.*, may contribute. The shut-in type of child who has a tendency to read too much should be made to get more outdoor exercise. Child labor may be a causative factor.

Drugs, such as tonics, play a very small part in the treatment of these cases. Cod liver oil or the haliver oil preparations are of value if well taken. Sufficient vitamin intake is of course essential. If diet does not correct constipation, a laxative such as cascara may be necessary. The malt preparations containing cod liver oil, tonics, and vitamin B may help cases when they are well tolerated. Iron and ammonium citrate, 5 to 10 grains, 3 times daily, helps to produce an appetite in some children.

SPECIAL METHODS

Recently various authors have advocated certain special methods of combating anorexia and underweight. Kugelmass and Samuels have recommended a raw basic diet. Rosenberg claims good results by using a lacto-vegetable, whole-wheat-grain cereal diet. Lucas and Pryor report that they have had good results after 6 weeks to 3 months on diets of low residue, low fat, and high vitamin content combined with a regimen of rest and any special therapy indicated. To combat the secondary anemia, Bartlett has advised liver and kidney among other meats in the child's diet. Blood transfusions are suggested in severe cases, especially in younger children; intramuscular blood injection and ultraviolet treatment may be of value. Emerson has had excellent results with his nutrition classes, based on the principles of group association, competition, and visual instruction, in which both children and parents participate. Such a program can also be undertaken by a community group.

The philanthropic work of the federal government, the state, local welfare and social agencies, and settlements, some of which maintain excellent summer camps for the underprivileged child, has prevented the development of malnutrition in many American children during the trying times of the past few years. The practice of some communities and the state in providing free milk and lunches for poor children in the schools has been of great benefit. Slum clearance with adequate playgrounds and recreation centers is needed in all large cities. Convalescent centers in the country for children discharged from hospitals but still needing care and supervision are lacking in many of our communities.

SUMMARY

1. The problem of the management of the underweight child is discussed in this paper.
2. The necessity for making a complete physical examination with the elimination of defects is stressed.
3. Overfatigue is considered the most important factor in producing underweight children; the importance of lack of home control, improper diet, and faulty food and health habits is noted.

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ABSTRACT OF DISCUSSION

R. T. DEVEREUX (West Chester): The medical profession should standardize the concept of malnutrition so that we may speak in the same terms and know what we mean by slight, moderate, or marked malnutrition. In the past the weight tables have not been constructed by medical people but by physical educators and statisticians. Lucas and Pryor, in the last few years, have adjusted weight tables to body build, and they are most useful. We have constructed one for certain zones—body-build weight zones—which will be published soon. In examining 800 children of the largest families on relief in Chester County, it was found that 50 per cent were of slender build, probably due to hereditary and racial factors. They could not be expected to conform to the Baldwin-Wood-Table.

Much of the groundwork for malnutrition may be laid to infection in infancy. About a year and a half ago we started giving an antigen to alternate newborn infants with the idea of trying to prevent colds and upper respiratory infections or at least to protect the babies from severe infection so that immunity gradually would be acquired. We have a series of 130 cases (including controls), and now are waiting until they are older before getting histories and studying the effects of the treatment—both general and nutritional.

The statistics on malnutrition are exceedingly confused. There are at least 50,000,000 to 100,000,000 estimates collected by school inspectors, nurses, and teachers; but for the most part they do not permit of comparison, and those that do, simply record underaverage weight.

J. GIBSON LOGUE (Williamsport): Malnutrition is one of the most important subjects that can be brought before a pediatric section, because caring for the malnourished child constitutes a large portion of our work. Two things appealed to me particularly in Dr. Feldstein's paper.

First, he brought out the fact that malnutrition in infancy is so often the precursor of malnutrition in childhood. This paper emphasizes that careful supervision during infancy is followed by rewards for the effort to both the physician and parents.

The second point that Dr. Feldstein stressed is a careful physical examination. We are apt to be rather cursory in our examination and take for granted that the case will fall into that large group in which no definite physical background is found. In my own work upper respiratory conditions have been the prevailing factor, the second commonest being childhood tuberculosis, and the third probably chronic pyuria, so-called pyelitis, particularly in the female children.

ANURIA AS A SURGICAL COMPLICATION*†

FRANCIS G. HARRISON, M.D., PHILADELPHIA

Anuria, or suppression of urine, occurring in the surgical case, either preoperatively or postoperatively, is a serious complication, demanding immediate attention with careful consideration of causative factors in order that indicated remedial measures may be instituted, as delay spells disaster.

Anuria must be clearly differentiated from retention of urine, in which secretion is not interfered with but obstructed along its route. A generally accepted classification of anuria makes 2 main divisions—secretory and obstructive:

CLASSIFICATION (EISENDRATH)

(A) Secretory:

1. *Prerenal*, *i. e.*, proximal to kidney.

- (a) Vascular spasm inhibiting main renal vessels.
- (b) Hysteria—probably due to same cause as (a).
- (c) Low blood pressure, accompanying shock, severe hemorrhage, loss of large amounts of fluid by emesis or diarrhea, advanced cardiac decompensation.
- (d) Embolism or thrombosis of the main vessels on one or both sides. If unilateral, the non-obstructed kidney is influenced reflexly in many instances.
- (e) Reflex inhibition as the result of peripheral irritation.

2. *Renal*, *i. e.*, affecting parenchyma—usually equally, on both sides, except in (d).

- (a) Acute glomerulonephritis, *e. g.*, postscarlatinal.
- (b) Acute nephrosis, *e. g.*, bichloride of mercury and similar selective renal poisons.
- (c) Chronic glomerulonephritis (renal sclerosis).
- (d) After removal of one kidney, the other ceases to function as a result of advanced parenchymal changes which have been either overlooked or underestimated as to extent before the nephrectomy.

(B) Obstructive (also termed “postrenal” or “excretory”):

Intrinsic, *i. e.*, within lumen of ureters or renal pelves or both.

- (a) Calculi, blood clots, or neoplasms blocking both renal pelves.
- (b) Same as (a), blocking renal pelvis or ureter of one side and reflexly inhibiting opposite normal kidney.
- (c) Same as (a), but opposite kidney either congenitally absent or has been removed.
- (d) Same as (a), but opposite kidney either congenitally hypoplastic, *i. e.*, not developed, or the seat of extensive destruction from disease.
- (e) Blocking of urethra by stricture or neoplasm, or of bladder neck by enlarged prostate or tumor, resulting in pressure atrophy of renal parenchyma and later in anuria. This is a combination of obstructive and secretory anuria, the former preceding the latter usually for a long period.

Extrinsic causes:

- (a) Obstruction of ureter by neoplasm arising primarily from some adjacent organ or tissue such as carcinoma of the uterus, rectum, or bladder, perivesical sarcoma, or secondary extension from carcinoma or sarcoma of prostate.

Following is a report of 8 cases, most of which have occurred recently.

CASE REPORTS

CASE 1.—H. S., male, age 38, was admitted on Oct. 26, 1925, and was discharged Nov. 18, 1925. The chief complaint was pain in the left side with hematuria for one day. Roentgenogram revealed a large branching calculus in the left kidney; the right kidney was negative. He was thought to have a crossed renal reflex. A left nephrectomy was done, with uneventful convalescence. Three months later there was sudden sharp pain in the right quadrant, radiating to the right testis, associated with nausea and vomiting. The patient stated that he had not passed urine for 3 days. The blood urea nitrogen was 57; the blood pressure, 128/90. Ureteral catheterization dislodged a small calculus from the right pelvic ureteral junction. The anuria was relieved. Later, nephropylotomy was done with uneventful convalescence.

CASE 2.—W. B., male, age 53. The chief complaint was urinary fistula and difficulty in urination. The possibilities were: Stricture of the urethra with fistulous tracts; bilateral renal tuberculosis with calcification; nonfunctioning right kidney, tuberculous; left hydro-nephrosis with enlarged kidney. On Aug. 26, 1933, a

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† From the Urologic Services of the Graduate Hospital and the Presbyterian Hospital.

right nephrectomy was done. The final diagnosis was renal tuberculosis. The patient was well for one year, when he was admitted to the hospital on July 11, 1934, complaining of extreme nausea, vomiting, weakness, chills and fever, and anuria. The pulse rate was 130, regular; the blood pressure was 80/50. A tentative diagnosis was made of coronary thrombosis with renal suppression. The blood-sugar estimate was 300 and the blood urea nitrogen was 52. Treatment consisted of oxygen, glucose intravenously, and insulin. On July 14, 1934, there was no urine in the bladder; a No. 9 ureteral catheter was passed to the left kidney pelvis, urine immediately obtained, and the catheter allowed to remain in situ. The roentgen-ray diagnosis was left renal lithiasis and calcification within the lower left ureter. On July 26, 1934, the clinical diagnosis of calculous hydronephrosis and tuberculoma of the kidney was made. A pyelonephrotomy was done under spinal anesthesia. Parotitis developed. Death occurred on July 30, 1934, due primarily to hypostatic pneumonia and secondarily to myocardial failure. The pathologic report was tuberculoma of the kidney.

CASE 3.—H. U., male, age 71, was admitted on Dec. 4, 1933, and died Dec. 20, 1933. The chief complaint was difficulty in urination and mental irritability. The diagnosis was carcinoma of the prostate with retention of urine. The blood urea nitrogen was 94; creatinine, 7. There was anuria for 36 hours. This was a typical case of progressive carcinoma.

CASE 4.—G. M., male, age 63. The chief complaint was difficulty and frequency of urination for 7 months and anuria for 2 days. The diagnosis was sessile carcinoma of the bladder involving the trigone, extending outward laterally and covering the ureteral orifices. All of the internal vesical sphincter was involved with the growth. Bilateral nephrostomy, cystotomy, or fulguration of the growth was advised, but refused. The blood urea nitrogen was 40. The patient was not relieved.

CASE 5.—F. B., male, age 71, was admitted on Oct. 10, 1933, and died on Nov. 15, 1933. The chief complaint was hematuria. He gave a history of bladder tumors fulgurated elsewhere, with recurrence. A diagnosis of infiltrating carcinoma at the base of the bladder was made. On Nov. 8, 1933, suprapubic cystotomy was done with destruction of the tumor by surgical diathermy. The tumor involved the right ureter. Anuria developed 24 hours after operation and lasted for 36 hours, relieved by medication. The patient died of perforated infarct of the left ventricle with hemo-pericardium and vegetative mitral endocarditis. There was metastatic carcinoma of the pelvic retroperitoneal glands.

CASE 6.—J. C., male, age 73, was examined for the first time Nov. 3, 1932, when a small papilloma was found above the left ureteral orifice. The referring physician would not permit fulguration to be done. The patient was seen again 2 years later with excessive carcinomatous involvement of the bladder. Suprapubic cystotomy was done, with surgical diathermy and prostatectomy under ether anesthesia. Anuria developed 3 days after operation, lasting for 2 days, which was unrelieved by medication. The right kidney was explored and the kidney pelvis found to be empty of urine. The patient lived for 24 hours, during which time there was no excretion of urine from the bladder nor the nephrostomy wound.

CASE 7.—J. B., male, age 47, was admitted on Mar. 23, 1934, and discharged May 5, 1934. The chief com-

plaint was painless hematuria for 24 hours, preceded 2 days before by sensation on the right side and dark bloody urine. There had been similar attacks 20, 12, and 4 years previously. Pyelography was done, the left side being injected with 12½ per cent solution sodium iodide. Anuria developed, which was unrelieved by medication. Attempted catheterization of the ureters revealed blood clots coming from both ureteral orifices. A right pyelotomy was done, with uneventful recovery.

CASE 8.—H. A., male, age 29, was admitted on June 4, 1934, and died June 21, 1934. Three weeks prior to admission, there was moderately severe pain in the lower right quadrant of the abdomen. Four days prior to admission the pain became more severe, radiating to McBurney's point and to the kidney region. There had been nocturia and burning on urination for a few



CASE 1. FIG. 1: Large calculus in left kidney; symptoms all on right side. Roentgen ray: Right kidney negative. Thought possibly to have been crossed renal reflex.

days previously. The question arose as to whether the case was one of retrocecal appendicitis or ureteral calculus. A No. 5 ureteral catheter met with an obstruction at 5 cm. on the right side. The roentgenogram showed no evidence of calculus. A diagnosis was made of local irregularity without hydro-ureter or hydro-nephrosis. The possibility of an inflammatory mass about the ureter was also considered. An operation was performed on June 8, 1935, with negative findings. A retrocecal appendix with 2 large lymphatic masses was removed. The patient developed anuria twice during the postoperative course, relieved both times by medication. Glucose was given intravenously, Fisher's solution intravenously, and the Wangenstein apparatus was used. He died from local peritonitis.

Case 1 and Case 2 are examples of obstructive anuria in solitary kidneys. J. Leon Herman and Lloyd B. Greene report 19 cases in the literature of the past 5 years and add 4 personal observa-

tions of anuria in an acquired single kidney. Rubritus collected 900 cases of anuria and found 355 to be of the obstructive type; of these, 113 had one kidney absent. Herman and Greene point out the intolerance of the single kidney to small stones which often demand radical treatment that would not be applied as promptly, if at all, in the presence of a functioning kidney on the other side.

In reviewing the literature, one is struck with the apparent tolerance of the cases reported up to the beginning of the present century. The improvement in urologic diagnosis probably accounts for lessening of the duration. J. R. Caulk quotes Ambrose Dawson's case, in 1759, of a young female who did not urinate for 15 months and that of David Palmer in the *Boston Medical Journal*, 1837, which was similar. W. A. Myers collected 19 cases with a tolerance of 20 to 29 days and added a personal one of 30 days of malignant obstruction to both ureters. Caulk's series of 12 cases ranged from 1 to 7 days. Tolerance is a lack of clinical symptoms, but a nitrogen retention begins with the onset of anuria. It was this that caused Joshua E. Sweet to inquire, "What kills the patient?" As Keyes has said, "All the while there is brewing within him a crisis swift and terrible"; consequently, one should not be misled by such tolerance, as interference allowing resumption of secretion is the only hope. Caulk reports in normal kidneys a transient cessation after ureteral catheterization and believes it is more likely to occur in the normal kidney than in the abnormal. Occurring in the abnormal kidney, it is likely to be protracted. Cases were formerly attributed to renal

reflexes because of negative findings of calculi in the opposite side by roentgenography.

Case 1 was similar, with pain on one side and a large stone on the other. The large stone was of the silent variety, whereas the small ball-valve calculus did not show by roentgenography until later.

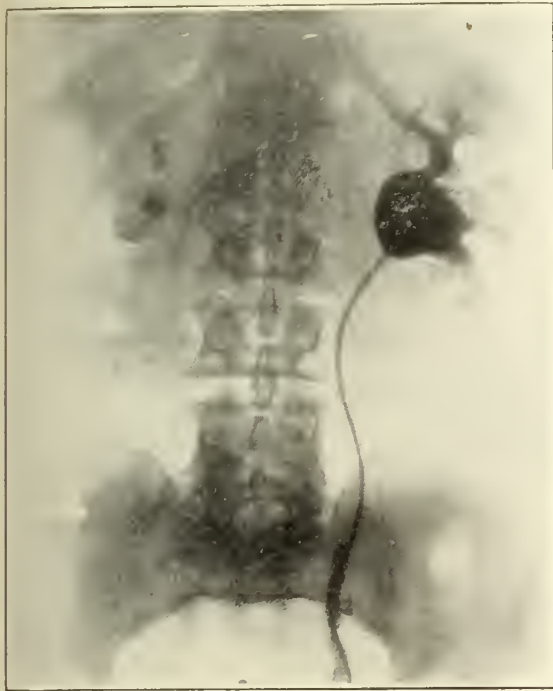
There should be no delay in attempting to relieve the obstruction. In Cases 1 and 2, the passage of a catheter accomplished this. The catheter was left in situ and the calculus removed when the patient had recovered. When the catheter does not relieve obstruction, then pyelotomy or nephrostomy is indicated. The condition of the patient should determine whether the calculi shall be removed or simple drainage instituted. If the patient with anuria is seen early, it may be possible to remove the calculus, but if seen late in the course, it is better to drain only. G. F. Cahill advises, in bilateral obstruction, that both sides be operated upon at one time and the last obstructed kidney operated upon first. In the infected cases, secretion did not start until 24 to 48 hours after nephrostomy. It was necessary for the renal tissue to be relieved of the edema and tissue exudate before its proper physiologic function could be resumed.

Rubritus reports 118 cases of calculus anuria. Operation relieved 99, temporarily relieved 11, and failed in 8.

Morris' analysis of 48 patients with obstructive anuria treated by expectant means showed a mortality of 79 per cent. Recovery occurred in 51 per cent by operation. Caulk had no mortality in 6 cases. Cases 1 and 2 in this series were relieved. Decapsulation has no place in this

SUMMARY OF CASE REPORTS

Case	Age	Diagnosis	Duration of anuria	Classification	Treatment	Anuria relieved	Result	Remarks
1—H. S.	38	Calculus Solitary kidney	3 days	Obstructive	Catheter	Yes	Relieved	Well. Working 8 years later.
2—W. B.	53	Calculus Solitary kidney Coronary thrombosis	2 days	Obstructive and secretory	Catheter Cardiac stimulation	Yes	Death	Bronchial pneumonia following nephrolithotomy and tuberculoma.
3—H. U.	71	Carcinoma of prostate	36 hours	Secretory	Medical	Yes	Death	Progressive carcinoma.
4—G. M.	63	Carcinoma of bladder	2 days	Secretory	Medical	No	Death	Refused operation. Uremia.
5—F. B.	71	Carcinoma of bladder	36 hours	Secretory	Medical	Yes	Death	Recovery from anuria. Death. Hemopericardium. Infarct of left ventricle
6—J. C.	73	Carcinoma of bladder	2 days	Secretory	Medical Nephrostomy	No	Death	Nephrostomy. No urine in kidney.
7—J. B.	47	Hematuria Varix (?)	56 hours	(?)	Medical Pyelotomy	Yes	Relieved	Subsequent excretory urography; normal function both sides. Right pyelotomy
8—H. A.	29	Retrocecal appendix	2 days 2 days	Secretory	Medical	Yes, twice	Death	Two attacks of anuria. Relieved. Succumbed to peritonitis and pyelonephritis.



CASE 2. FIG. 1: Bilateral renal tuberculosis. Renal calculi left. Hydronephrosis left. Right nephrectomy. Tuberculoma of left kidney.



CASE 2. FIG. 2: Right nephrectomy for tuberculosis. Calculi and tuberculoma of left kidney. Anuria in solitary kidney. Coronary thrombosis. Relieved by catheter.

type of anuria. Keith, Pulford, Barney, and Caulk have shown that a kidney cannot stand a complete block for a period of 2 to 3 weeks and later resume its function. Bilateral renal drainage is advised in those cases in which there is obstruction to both ureters.

The patient recorded as Case 2 had, in addition to obstructive anuria, an attack of coronary thrombosis. In fact, the symptoms all pointed to cardiac failure and he was, of necessity, given oxygen and stimulation. The blood pressure was 80 systolic and 50 diastolic. It has been stated by Alexander Randall that the secretion of the kidney is due to arterial blood pressure, which must be 60 mm. of Hg. or above, and the chemical composition of the blood. Wikner showed that normal blood pressure increases with age. It naturally follows that, in hypertension, there is a higher threshold for anuria. Hence, in this case, the systolic pressure of 80, was not enough to promote kidney secretion. Coronary thrombosis as well as other cardiovascular conditions that produce shock can cause anuria. It is impossible to state in Case 2 which came first, but it follows that if the patient did not get treatment for the cardiac failure, with increase of blood pressure, it would not have been possible to relieve the anuria by catheter.

Case 2 was also a mild diabetic and received insulin following the glucose. H. F. Root reports a series of cases of anuria following dia-

betic coma. Salt solution given under the skin and dextrose solution given either under the skin or intravenously failed to produce urinary secretion. An analysis of the plasma chloride may show a low value, which clearly indicates the lack of chloride. Fifty c.c. of 10 per cent sodium chloride is recommended in children, and 120 to 130 c.c. in adults.

Cases 3, 4, 5, and 6 are examples of malignancies involving bladder and prostate and constitute a chain which has changed our opinion as to the type of anuria involved. Case 3 presented almost a terminal anuria which was relieved by medication, only to relapse later. Carcinoma of the prostate played a contributing part in obstruction. Case 4 was seen in 1927 and presented anuria with a large malignancy of the bladder covering both ureteral orifices. We believed that this was an obstructive condition and advised immediate nephrostomy besides cystotomy with destruction of the tumor mass. The family refused to consider operation and the patient died with anuria unrelieved by medical aid. Case 5 carried out the picture of malignancy of the bladder and anuria a little farther inasmuch as a cystotomy was done and the tumor destroyed by surgical diathermy. It is our custom to disregard the orifice and destroy the tumor. Anuria developed immediately after operation and was relieved mainly by the administration of glucose intravenously, 200 c.c. of 50 per cent

solution. Opinion differs as to the amount and rate glucose should be given, as it is not only a powerful diuretic but a pancreatic stimulant as well. Some believe in 50 to 100 gm. doses so as to "shock" the kidneys, while the more conservative adhere to 25 gm. doses several times daily. With the relief of anuria in this case, we concluded that these cases were largely secretory rather than obstructive in nature and needed attention directed to the heart and kidneys. The consideration of reflex set up by irritation around the ureteral orifice was also considered, as it was known that ureteral catheterization would produce the same result. It remained for Case 6 to demonstrate that such conditions were usually prerenal. With multiple papillomata, the bladder was opened and the tumors destroyed by surgical diathermy. Anuria ensued in 48 hours and was unrelieved by cardiac and renal stimulation. Nephrostomy found the kidney dry.

McCarthy, Killian, and Chase reported excellent results from the duodenal tube and introducing fluids into the patient by this procedure. In cases 6 and 8, the Wangenstein apparatus, which is very helpful in distended cases, was used.

Case 7 presents an individual with intermittent hematuria for more than 20 years, but no demonstrable kidney changes. He had been studied in other hospitals where essential hematuria had been noted. We routinely perform

bilateral pyelography in undamaged kidneys by the syringe method, employing no great pressure and stopping at the first sensation noted by the patient. I have never observed any harmful results except in one case in which some col-largol infarcts were found on nephrectomy, but not noticed clinically. The medium of choice at present is 12½ per cent sodium iodide solution.

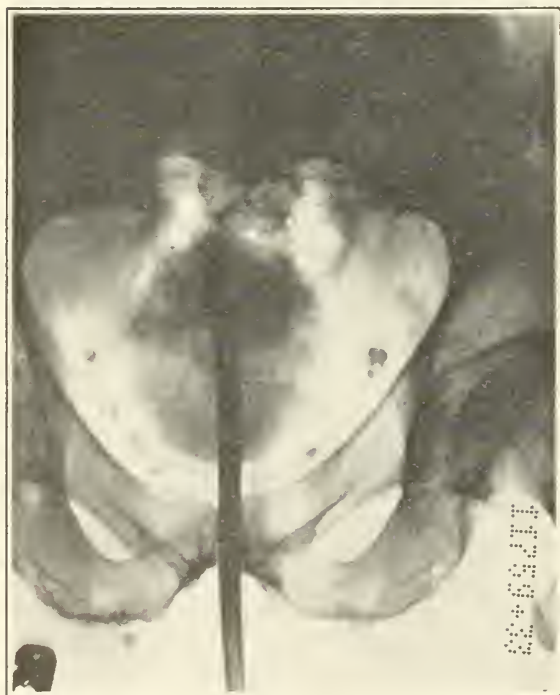
This patient was not seen by me until his anuria developed, but I was told that his left or good side (the blood was seen to come from the right side by cystoscope) was not injected because he complained of sensation after 4 c.c. As the anuria was unrelieved by medication and the patient seemed quite toxic, an attempt was made to catheterize the ureters and to overcome any possible block by reflex. A plug or rope of clot was seen extending from both ureteral orifices, and catheterization failed. Inspection of the right kidney was made and pyelotomy performed. No urine was found, but the pelvis and ureter were filled with blood. Was this secretory or obstructive? Was the pyelographic medium irritant? (The patient had had previous pyelography.) Was the medium 12½ per cent sodium iodide or some other colorless solution? We could at least obtain the answer to the last, and 12½ per cent sodium iodide was confirmed. I believed this patient to have polycystic kidneys because of filling defects prior to operation, but upon inspection only a single retention cyst was seen and no other pathologic manifestation. It is interesting to note that excretory urography performed a few weeks later showed both kidneys functionally sufficient.

H. H. Morton reports a case of suppression of urine following double pyelography by the gravity method. The medium was sodium bromide. The condition was relieved by medication. This case showed a calculus in the lower end of the right ureter and could well have been of the obstructive reflex type and not similar to ours.

We have all seen the transient anuria following syncope at cystoscopy with recovery as soon as the vasomotor system adjusted itself. This patient, however, was not in shock.

Paroxysmal hemoglobinuria, blackwater fever, and cholera produce depositions of hemoglobin in the tubules. W. York and R. W. Nauss, in 1911, and S. L. Baker and E. C. Dodds produced obstruction in the kidney tubules of rabbits with a solution of hemoglobin.

Case 8 is one of overwhelming infection, with normal kidneys before the attack of appendicitis. The patient developed anuria, which was relieved, followed by hematuria and recurrence of



CASE 5. CYSTOGRAM: Irregularity at base of bladder—carcinoma.



CASE 7. FIG. 1: Anuria following bilateral pyelography (12½ per cent sodium iodide). Filling defect in right kidney? Left kidney not completely filled. No pathology upon palpation or inspection at pyelotomy. Anuria relieved.



CASE 7. FIG. 2: Excretory urograms demonstrating kidney function 15 minutes after injection. Filling defect? in right kidney as seen prior to anuria and pyelotomy. Left kidney pelvis well filled.

the anuria. Necropsy disclosed a bilateral pyelonephritis with multiple small abscesses. Clark has remarked that it is the overwhelming infection which shortens the tolerance.

White reports a case of ruptured appendix and limited peritonitis. Toxemia from peritonitis affected the damaged kidneys, producing anuria.

Anuria has followed general anesthesia. A. Hyman reports a case of traumatic fracture of both femurs in which anuria developed 9 days after anesthesia.

W. deB. McNider says that anurias occurring in normal animals during anesthesia have been associated with either low blood pressure or depletion of the alkaline reserve of the blood, *i. e.*, acidosis. Acidosis is usually associated with low blood pressure.

F. W. Bancroft, in 1925, reported 8 cases of anuria following blood transfusion, 7 of which were preceded by hematuria.

C. H. Hofrichter refers to acidosis as a cause of unifarious tubule changes, and states that injections of concentrated acids or alkalis into the blood will cause glomerular or tubular changes identical with those of bacterial toxemias.

A. A. Osman believes he can prevent the non-obstructive suppression of urine by attention to the plasma bicarbonate level, which is reduced in acidosis. He recommends potassium citrate (gr. 30) and sodium bicarbonate (gr. 30) hourly until acid urine becomes alkaline.

Thus it is seen that, reduced to the lowest denominator, secretion of urine follows the dictum of A. N. Richards—upon the blood pressure of the renal vessels.

Joshua E. Sweet in "Theoretical Aspects of the Problem of Anuria" states that more accu-

rate, more thoughtful bedside observation of the patient is needed for the advancement of the science of medicine.

With the survey of this small series, in which 2 of 8 patients are living, and with 4 necropsy reports, it would appear that important data such as the blood pressure, pulse pressure, *etc.*, during the attacks of anuria are wanting. In the future we should heed the advice expressed in the foregoing paragraph; it is the only hope of advancement in a condition that presents such a grave prognosis.

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ABSTRACT OF DISCUSSION

J. EDWARD McDOWELL (Pottsville): Among the classifications it would seem that the modern one is likewise the most scientific, namely, prerenal, renal, post-renal, and reflex anuria. The renal reflex suppression, since the advent of our more modern and exacting urologic surveys, is not reported as frequently as formerly. However, it seems highly presumptive and the evidence submitted must be given due credit.

We are told that the literature records no deaths from uremia resulting from reflex anuria when one kidney was shown to be sound. Any extensive operation involving considerable shock within or without the urinary tract, trivial operations or procedures upon the lower urinary tract as the passing of instruments for various reasons, severe collapse following injury—all, individually or collectively, may cause anuria. We hear very little to-day of the acute septic anuria described by the older surgeons. English physicians not infrequently report this mishap following hemorrhoidectomy. Francis R. Hagner, of Washington, D. C., in the *Journal of Urology* recently, reported a fatal case of anuria following nephrectomy for tumor, upon which massive doses of roentgen ray had been used. It was his opinion that the anuria was caused by the rays.

In the treatment of prerenal anuria, the older surgeons used fluids, sparteine, hot packs, Murphy drip, watermelon seeds, and renal decapsulation.

Low blood pressure, the sympathetic nervous system, and the endocrines seem to play an important rôle in

prerenal anuria. A personal communication from Temple Fay, of Philadelphia, states that he has treated 3 patients with anuria, with no fluids whatever, with apparent success. I do not know the history of these patients or the type of anuria. As revolutionary as it seems, keep in mind his contribution of the principles of dehydration in epilepsy and eclampsia.

Rapid vesical distention and evacuation is a stimulant to diuresis.

Decapsulation is now questioned, but Gustav Kolischer, of Chicago, still insists that in nephritic anuria it is a well-founded intervention and often successful. The Germans are using a 40 per cent solution of urotropine intravenously with relatively good results. Adrenalin is recommended quite highly by Henry W. E. Walther of New Orleans; it is used via the ureteral catheter. The rationale has never been explained. Hot-water injections have been used by the same route.

Sympathectomy procedures upon the kidneys and ureters are not without ultimate danger to the uropoietic mechanism, and their virtues really still have to be proven.

As for postrenal and obstructive anuria, calculi are the prime offenders although tumors and strictures are responsible for a small percentage of the cases. The treatment falls into 2 well-defined categories—cystoscopic and surgical. In anuria following ureteral ligation, nephrotomy is preferable to deligation.

Success in the treatment of this type of anuria depends upon familiarity with the conditions causing it and the realization of its seriousness, in spite of the comparatively good condition of the patient. The English speak of it as the latent uremic period. Expectant treatment should have only a meager place in cases of calculous anuria.

Cystoscopic manipulations will often help in the removal of some stones, or anuria may be temporarily removed and the patient made a safer surgical risk.

HENRY SANGREE (Philadelphia): Recently we did a bilateral pyelography on a patient in whom there was a filling defect in one kidney followed by anuria. A nephrotomy and decapsulation of the kidney were done. Ureteral catheterization previous to operation was unsuccessful. Retrograde catheterization was feasible at the time of operation. It was the first case in which we made a bilateral pyelogram with anuria following. Rathbun averages about 1000 pyelographies a year and has never had one case of anuria following as a complication. Perhaps the filling defect was the cause of the anuria. No diagnosis was made. The pathologist said it appeared to be a toxic kidney.

LEON HERMAN (Philadelphia): This case proves absolutely that there is such a thing as reflex anuria. I dare say this was not a diseased kidney. There is discussion among physiologists as to whether or not there is such a thing as reflex anuria in a normal kidney. If this does actually occur, it is so rare as to be of negligible value. These cases are very difficult to prove at times, and the case I am about to describe proves it absolutely. A boy, age 11, was brought to the clinic. He had been seen by 13 doctors. There was paralysis from the nipple line down to the toes and acute transverse myelitis with retention of urine. One day a doctor passed the catheter through the perineum and did a cystostomy. There were myriads of stones in the kidneys, causing renal infection and necessitating a right nephrotomy. He subsequently became anuric. Roentgenography revealed a large stone. The right kidney had stopped secreting completely for about 12 hours

before operation was done on the left side. A stone was removed from the left kidney, and immediately following operation this kidney secreted urine. The right kidney did not secrete a single drop for 48 hours, then began to function and has continued to do so.

WILLARD H. KINNEY (Philadelphia): Do you make your pyelographic studies under fluoroscopic observation?

DR. HERMAN: No.

DR. KINNEY: I want to report a case on account of the high nitrogen retention. I did a nephrectomy in a stone-bearing kidney, and 48 hours later anuria developed. For 4 days there was acute suppression of urine. The nonprotein nitrogen retention was 212 and creatinine 14. This was in May, 1930. The man is perfectly well to-day. An interesting feature is that we depended upon glucose in large quantities. Within 24 hours after he started to secrete urine, that kidney secreted 2500 c.c., which shows the compensatory hypertrophy of the kidney.

I am opposed to lateral pyelography. Since 1912 Willis F. Manges has never collaborated in pyelographic



CASE 8. Both kidneys functionally sufficient. Small papilloma of bladder fulgurated. Catheter obstructed right side 3 cm. Irregular shadow at lower right ureter. Retrocecal appendix. Anuria after appendectomy, and exploration of ureter. Relieved by medication, followed by recurrence. Relieved. Death from peritonitis.

studies without fluoroscopic observation. We never inject with a syringe. The solution is allowed to flow throughout with hydrostatic pressure from a buret. In thousands of cases we have not had anuria develop from pyelographic investigation. We always have a fear of doing a bilateral pyelography.

DR. HARRISON (in closing): In the paper read I was more interested in presenting case histories than in reviewing the literature, which is quite interesting on all these various types. Grossfein reported 3 cases in which he placed a clamp on the renal vessels in doing a ne-

phrectomy. All 3 of these patients developed anuria in the remaining kidney. Upon release of the clamp, the anuria was relieved. In regard to reflex anuria, the authors are about equally divided. I was interested in this series of cases because the majority had normal kidneys when we saw them, and the anuria developed afterward. We have been doing bilateral pyelography routinely for a number of years. The only case showing untoward effects was one in which I injected collargol into the kidney. The patient experienced a sen-

sation in the side, and the injection was immediately stopped. A pyelogram showed the necessity for removal of the kidney; clinically, he had no symptoms. At operation numerous collargol infarcts in the kidney were found. That is the only case in which untoward serious effects have occurred. There is one case in the literature in which an individual developed anuria following pyelography, not exactly similar to the case in the record here, because a small stone was found in the lower ureter afterwards.

HYPERTENSION SIMULATING THYROTOXICOSIS*

RONALD L. HAMILTON, M.D., AND ALBERT P. KNIGHT, M.D., SAYRE, PA.

There is a marked resemblance between the clinical syndrome of arterial hypertension and thyrotoxicosis. So frequently do the symptoms of these diseases simulate one another that one cannot but be intrigued with the hypothesis that there must be a common background, a similar pathologic physiology of either the vegetative nervous system or the endocrine glands explaining the common symptoms. Both are diseases of civilization and appear principally in the middle-life period, and both are diseases which may follow emotional strain or long-standing toxicosis.

Every physician who sees much thyroid or hypertensive cardiovascular disease meets that borderline case—the patient with complaints of nervousness, profuse perspiration, palpitation with tachycardia, loss of strength, slightly elevated basal metabolic rate, a systolic blood pressure of 160 plus, and a diastolic blood pressure of 85 to 90. There is frequently a slight stare, and a palpable thyroid with or without adenomata may be found.

In a review of the recent literature several references to this subject are found.

S. Weiss, in a discussion of hypertension, lists headache, palpitation, insomnia, and hot flashes as frequent complaints. He states further that many of his patients were characterized by high-strung personalities, prominent and shiny eyes, wide pupils, flushed faces, warm hands, and a tendency to perspire.

J. Mannaberg noted the frequency with which tachycardia occurred in patients with hypertension and stated that it did not respond to vagus stimulation, thereby eliminating one of the important diagnostic signs used in differentiating these 2 conditions.

Numerous writers have noted an elevated basal metabolic rate in patients with hypertensive cardiovascular disease.

Diastolic hypertension and hyperthyroidism may exist coincidentally, and it is surprising that these 2 conditions are not found more frequently coëxistent in the same patient. Davis Marine noted that diastolic hypertension occurred with undue frequency in later life in patients who had hyperthyroidism with a normal blood pressure in early life.

Hypertension may exist coincidentally with thyrotoxicosis. In fact the so-called "goiter heart of Edward Rose" seems to predispose to vascular changes which will result in hypertension.

In a study of the relationship of blood pressure in cases of hyperthyroidism, Louis M. Hurxthal found a slight change in the blood pressure following subtotal thyroidectomy. He noted an average drop of 10 mm. in the systolic and a rise of 7 mm. in the diastolic pressure in a group of 46 cases of toxic goiter followed for 13 months after operation. H. H. Rosenblum and S. A. Levine in a similar study observed a rise of 3 mm. systolic and 4 mm. diastolic pressure 3.3 years after operation for hyperthyroidism.

A study of 155 recent cases of thyroid disease without myocardial insufficiency and uncomplicated by serious constitutional disease was carried out at the Guthrie Clinic together with a control series of 60 normal cases. A careful study was made to obtain typical cases of each thyroid group, there being 55 cases of the exophthalmic, 50 of the adenoma with hyperthyroidism, and 50 of the adenoma without hyperthyroidism. To this was added a group of 50 cases with hypertensive cardiovascular disease. The criteria for the diagnosis of hypertension was a systolic pressure of 160 plus with a diastolic of 90 plus.

The purpose of this study was the investigation of the following issues: That the condition of hyperthyroidism causes an alteration in the blood pressure as compared with the readings in

* Read before the Section on Medicine of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 3, 1934.

TABLE 1
BLOOD PRESSURE BY DECADES

Age	10-20				20-30				30-40				40-50			
	S. Pre.	D. Pre.	S. Po.	D. Po.	S. Pre.	D. Pre.	S. Po.	D. Po.	S. Pre.	D. Pre.	S. Po.	D. Po.	S. Pre.	D. Pre.	S. Po.	D. Po.
Exophthalmic	135	72	127	74	134	79	126	82	138	82	127	82	155	86	138	83
Adenoma with hyperthyroidism					128	79	124	81	133	81	126	85	179	92	161	95
Adenoma without hyperthyroidism	120	77			119	73			134	84			124	82		
Control	118	73			124	76			123	78			125	81		
Exophthalmic plus hypertension									178	95	160	118	200	124	180	96
Adenoma with hyperthyroidism plus hypertension					160	100	170	100					240	128	228	134
													198	104	162	96

TABLE 1—(Continued)

Age	50-60				60-70				Average				Total males each group	Total females each group	Total cases each group
	S. Pre.	D. Pre.	S. Po.	D. Po.	S. Pre.	D. Pre.	S. Po.	D. Po.	S. Pre.	D. Pre.	S. Po.	D. Po.			
Exophthalmic	183	82	147	84	167	86	160	91	151.0	81.6	135.0	82.0	20	35	55
Adenoma with hyperthyroidism	165	83	148	76	169	88	174	82	160.0	85.0	152.0	87.0	7	43	50
Adenoma without hyperthyroidism	141	87			142	90			129.0	83.0			3	47	50
Control	146	90			144	89			130.0	82.0			10	50	60
Exophthalmic plus hypertension	244	100	190	98	160	100	170	110	196.4	107.4	178.8	108.8	1	4	5
	200	118	194	122											
Adenoma with hyperthyroidism plus hypertension	212	94	202	104	160	94	154	98	194.0	104.0	184.0	106.0	2	3	5
Thyrotoxicosis with hypertension									195.2	105.7	181.4	107.4			10

S. Pre.—Systolic blood pressure preoperatively.

D. Pre.—Diastolic blood pressure preoperatively.

S. Po.—Systolic blood pressure postoperatively.

D. Po.—Diastolic blood pressure postoperatively.

the nongoitrous patient; that alteration takes place in the blood pressure following thyroidectomy in the thyrotoxic patient without coëxistent hypertension, and also in the same type of patient with hypertension; that there is any relation between metabolism and blood pressure; and that any change occurs in the basal metabolic rate of patients with hypertensive cardiovascular disease as compared with normal individuals.

Two additional problems also presented themselves: (1) To determine what change occurs in the basal metabolic rate in each of the groups of thyroid disease following thyroidectomy; and (2) to discover the relative frequency of hypertensive cardiovascular disease occurring in patients with toxic goiter.

For an adequate investigation of this last problem it was necessary to review 288 case reports of patients with exophthalmic goiter and

342 case reports of patients with adenomata plus hyperthyroidism.

There is an increase in the systolic pressure in the average thyrotoxic patient (Table 1). The average systolic pressure in the exophthalmic group was 151 and the diastolic figure was 81; the average systolic pressure in patients with adenomata plus hyperthyroidism was 160, and the diastolic was 85. The patients with adenoma and without hyperthyroidism showed an average systolic pressure of 129, diastolic of 83; the figures for the control group were systolic—130, diastolic—82.

In the exophthalmic patients without hypertension there was a drop of 16 mm. in the systolic pressure and a rise of 0.5 mm. in the diastolic pressure following thyroidectomy. In the patients with adenomata plus hyperthyroidism but without hypertension a drop of 8 mm. in the systolic pressure occurred, and a rise of 2 mm.

in the diastolic pressure. In the exophthalmic group with hypertension a fall of 17 mm. in the systolic pressure and an elevation of 1.5 mm. in the diastolic pressure was found. In the adenomatous cases with hyperthyroidism plus hypertension the systolic pressure fell 10 mm. and the diastolic pressure rose 2 mm.

There appeared to be some slight relationship between the average blood pressure and the basal metabolic rate, but this was not noticeable with any degree of regularity in the individual case. The age factor played the dominant rôle.

There was a definite increase in the basal metabolic rate of patients with hypertensive cardiovascular disease, as compared to the control group (Table 2). The average basal metabolic rate in the patient with hypertensive cardiovascular disease was 12.4 while in the control group it was 8.

The basal metabolic rate in the exophthalmic group prior to operation was 53; after operation it was 9, showing a drop of 44. In those patients with adenomata plus hyperthyroidism, the basal metabolic rate was 37 preoperatively; after operation it was 10, showing a drop of 27. In the group of patients with adenomata without hyperthyroidism, the basal metabolic rate was 14.3 preoperatively, and 9 postoperatively, showing a drop of 5.3 per cent. The metabolic rates of patients in all groups following operation was practically the same as for the control group, which was 8 per cent (Table 3).

Hypertension was noted with surprising frequency in the study of those patients with toxic goiter (Table 4). It occurred in the exophthalmic group in 29 of 288 cases, or in 9.9 per cent. In patients with adenomata plus hyperthyroidism, it occurred in 56 of 342 cases, or in 16.3 per cent. In the total thyrotoxic group there were 85 cases, or 13.4 per cent.

TABLE 2
BASAL METABOLIC RATES IN HYPERTENSIVE CARDIOVASCULAR DISEASE COMPARED WITH CONTROL SERIES

	Number of cases	Average systolic pressure	Average diastolic pressure	Average basal metabolic rate
Hypertensive cardiovascular disease ...	50	190	108	12.4
Control	60	130	82	8.0

RELATIONSHIP BETWEEN THE VEGETATIVE NERVOUS SYSTEM AND HYPERTHYROIDISM

Any attempt to show a relationship between the vegetative nervous system and hyperthyroidism can be but a tentative expression of opinion, since the problem involves so many endocrine and nervous reactions, the knowledge of whose physiology is still in such an incomplete state. Comprehension of this relation is dependent upon a knowledge of the anatomy and physiology of the component factors.

Space will not permit of an adequate discussion of the pathologic physiology of the vegetative nervous system and endocrine glands which this subject deserves, and which result in the production of so many of the symptoms of both hypertension and hyperthyroidism.

The function of the orthosympathetic and the parasympathetic systems are generally antagonistic in their reactions. There being also so close a genetic basis for the cells of the sympathetic system and certain of the chromatophilic cells of the adrenal medulla, a relationship is established between the endocrine and the sympathetic systems. It is also known that the secretion of the chromatophilic cells of the adrenal gland are said to maintain the sympathetic tonus; this together with the secretions from the posterior lobe of the pituitary body and the thyroid affects the vegetative nervous system. Andre

TABLE 3
BASAL METABOLIC RATE BY DECADES

Age	10-19		20-29		30-39		40-49		50-59		60-69		General Average		Males	Females	Cases
	Pre.	Po.	Pre.	Po.	Pre.	Po.	Pre.	Po.	Pre.	Po.	Pre.	Po.	Pre.	Po.			
Exophthalmic	51	6	48	9	48	11	57	9	56	15	61	11	53.0	9	20	35	55
Adenoma with hyperthyroidism			27	7	39	7	27	8	41	11	40	11	37.0	10	7	43	50
Adenoma without hyperthyroidism	12	11	16	11	10	9	11	8	18	8	30	3	14.3	9	3	47	50
Controls	8		11		9		5		9				8.0		10	50	60
Total															40	175	215

Pre.—Preoperatively. Po.—Postoperatively.

TABLE 4
FREQUENCY OF HYPERTENSION IN CASES OF
THYROTOXICOSIS

Group	Number of cases	Frequency	Percentage of occurrence
Exophthalmic	288	29	9.9 per cent
Adenoma with hyperthyroidism	242	56	16.3 per cent
Total thyrotoxicosis	630	85	13.4 per cent

Crotti states definitely that the internal secretion of the thyroid gland acts as an activator to produce a sympathicotonia and vagotonia which may account partially for the maintenance of balance between the 2 systems.

It is known that the thyroid and adrenal glands are activated by stimulation of the sympathetic nervous system, and also that the major emotions, as shown by Cannon and G. W. Crile, stimulate these sympathetic nerves. Hence, the emotional states, through the stimulation of the sympathetic nervous system, increase the activity in both the thyroid and adrenal glands. Crile refers to these latter glands as being the electric generative plant of the vegetative nervous system.

Pottenger states that excessive stimulation of the endocrine system generally, and stimulation of the sympathetic nervous system and, through it, the sympathicotropic endocrines (the adrenals and thyroid) result in loss of strength, nervous instability, increased metabolic rate, loss of weight, increased pulse rate, sweats, and increased temperature. These are especially significant inasmuch as they correspond to the symptoms and signs of hypertension, hyperthyroidism, and hyperadrenalism as reported by S.

Weiss, Edward Rose, Walter Timme, and Andre Crotti (Table 5).

Patients should be segregated into one of 3 groups in order to treat them properly. These groupings are hypertension simulating thyrotoxicosis, simple thyrotoxicosis, and thyrotoxicosis with a separate independent hypertension. The first group will not be aided by thyroid therapy except perhaps for a limited time. This is well brought out by 2 cases reported by E. P. Boas and S. Shapiro. These patients may be subjected needlessly to surgery. If so, they will become a bugbear to the surgeon because of the lack of improvement in their symptoms. Accurate diagnosis is essential, as these patients may easily slip by the clinician and into the operating room. Such cases are not rare.

CONCLUSIONS

There is frequently a marked similarity in symptoms of hypertension and hyperthyroidism, and all patients suspected of hyperthyroidism should be examined carefully as to cardiac competency and blood pressure.

A patient with an increased basal metabolic rate in whom there is also an increase in blood pressure should be critically considered as to whether the hypertension is due to the thyrotoxicosis, or whether it is a separate or distinct entity.

An effort has been made to explain the common symptomatology of these 2 diseases by a short review of the pathologic physiology of the vegetative nervous system and some of the endocrine glands. The symptoms of thyrotoxicosis and hypertension seem to be an expression of an increased sympathetic nervous system tonus, principally giving rise to an abnormal rhythm in

TABLE 5

Symptoms	Hypertension	Hyperthyroidism	Hyperadrenalism	Stimulation of sympathetic system (Crotti)
Pulse rate	Increased	Increased	Increased	Increased
Temperature		"	"	"
Blood pressure	Increased	"	"	Slight rise
Psychomotor activity	" (Weiss)	" (Timme)	"	
Intense individuality	" (Weiss)	" (Timme)	" (Timme)	
Basal metabolic rate	" (Weiss) (Rose)	" (Timme) (Rose)	" (Timme)	Increased
Hyperidrosis		Present (Timme)	Absent (Timme)	Some increase above normal
Hyperacidity		" (Timme)	" (Timme)	Decreased
Increased intestinal motility		" (Timme)	" (Timme)	"
Exophthalmos	Fullness of eyeballs (Rose)	" (Timme)		Protrusion of eyeballs

the thyroid and adrenal glands. These symptoms are modified, however, by a mild parasympathicotonia in certain cases.

A study of 215 selected case records at the Guthrie Clinic disclosed that there was an increase in the systolic pressure both in the exophthalmic group and in those patients with adenomata plus hyperthyroidism, as compared to the control series.

Patients with thyrotoxicosis followed by thyroidectomy showed a small drop in systolic pressure, but a slight rise in diastolic.

There is no noticeable relationship between the blood pressure and the basal metabolic rate, except in the general averages of some groups and then not to a significant degree. The changes in blood pressure were consequent upon age.

There was a definite increase in the blood pressure of patients with thyrotoxicosis compared to the control group.

Hypertension was a relatively frequent occurrence in patients with thyrotoxicosis.

There was a significant drop in the basal metabolic rates of all thyrotoxic patients following thyroidectomy, and the basal metabolic rate following thyroidectomy was practically the same as that of the control group.

A review of the literature and a survey of the findings of those cases reported at the Guthrie Clinic suggest that the adrenal and thyroid glands are intimately associated in the production of the symptoms of both hypertension and hyperthyroidism, and that the adrenal glands are apparently the dominant controlling factor. Therefore, any treatment which might be directed toward the lessening of the adrenal gland activities should be of some value in the control of these diseases.

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ABSTRACT OF DISCUSSION

HAROLD L. TONKIN (Williamsport): The subject under discussion has a number of variable factors in the background and a clinical picture oftentimes so masked that the diagnosis is particularly interesting and, in many cases, exceedingly difficult.

As Dr. Hamilton has pointed out, relatively little has been written on this subject. Numerous workers have recorded the elevated basal metabolic rate in the various stages of hypertension and the elevated blood pressure in the different types of thyroid dysfunction. There has been quite a general agreement in these data.

Unquestionably, both hypertension and hyperthyroidism have in common an autonomic imbalance and there is evidence strongly suggestive of a state of chronic stimulation of the sympathetic nervous system in both diseases. This is not only a frequent clinical observation but has definite experimental proof. To separate the 2 conditions and to attempt to determine all the factors

involved is extremely difficult, if not impossible at the present time. A review of the literature indicates that there is possibly more of a distinction than an actual difference between the 2 conditions.

In differential diagnosis the following practical points should be emphasized:

1. In differentiating hyperthyroidism from hypertension the level of the diastolic pressure is of considerable help. It is extremely unusual for hyperthyroidism to cause a diastolic elevation above 100. This is a very important differential point.

2. The examination of the eyegrounds is also particularly helpful. The presence of distinct arterial damage in the optic fundi is evidence of a hypertensive process and is frequently a relatively early finding. These changes are not difficult to determine and are extremely valuable in a differential diagnosis.

3. The degree of renal impairment as shown by the urea clearance test is of considerable help. The early stages of renal insufficiency are more frequently accompanied by changes in the urea clearance than by any of our other so-called "tests of renal function." The urea clearance test is sufficiently delicate to detect the relatively small amount of renal impairment which may occur in beginning hypertension.

4. The fluctuation of the basal metabolic rate in hyperthyroidism when the patient is alternately placed on and off iodine therapy is extremely helpful. Means, of Boston, has pointed out that when thyrotoxicosis is truly present, even though in slight degree, the response to iodine is definite, delicate, and exact. The observation of the iodine response is also an aid in differential diagnosis in the cases of hyperthyroidism associated with hypertension and serves as a guide in the determination of the predominating condition.

5. The relatively high incidence of disturbed carbohydrate metabolism in hyperthyroidism as compared with its relatively low incidence in hypertension may be considered of value in the differential diagnosis.

MICHAEL G. WOHL (Philadelphia): I studied a series of atypical cases of Graves' disease (*Medical Clinics of North America*, July, 1932, and Nov., 1933), in which hyperthyroidism was masked by symptoms simulating other diseases. In one instance the symptoms simulated hypertension. The patient was under observation in the hospital for several weeks before it was decided that it was a hyperthyroid state. There was another patient in whom thyrotoxicosis was masked by symptoms of colitis, etc. We all rely upon the basal metabolic rate. In association with Dr. Harold Robertson I studied a group of cases of essential hypertension without hyperthyroidism, in which the metabolic rate was plus 27 per cent; these cases may be quite misleading. On the other hand, there are some cases of hyperthyroidism with a normal or subnormal metabolic rate of plus 10 to minus 10. One of our patients with a small adenoma of the thyroid traveled from clinic to clinic with cardiac symptoms that overshadowed the thyrotoxicosis. Records were made in the various places that she had an adenomatous enlargement of the thyroid; however, because of an overestimation of the significance of a normal rate she was denied an operation. The patient was operated upon later. Her response to thyroidectomy differed in no way from patients with similar symptoms and a high rate. The clinical picture must always be correlated with the basal metabolic rate. A diagnosis cannot be made upon the basal metabolic reading alone.

MY CREDO*

I believe firmly that every physician should be a member of and support his county medical society. There was a time in New York State when it was obligatory to be a member in order to obtain a license to practice. I would revert to such compulsion.

The House of Delegates of the American Medical Association has adopted the resolution that membership on the staffs of all hospitals approved for training of interns will be restricted to members of medical societies that are component parts of the American Medical Association. (See Nov. 17, 1934, *A. M. A. Journal*.)

Membership in the county medical society guarantees to the public, the law, and the medical profession that one is in good standing. It places the stamp of approval on its members. Wherefore, we must beware that only the eligible are so approved, and we must not allow the ineligible to practice. This would lessen somewhat the oversupply of physicians.

I believe that matriculants in medicine should be limited to the need for physicians.

I believe that the state should register only the graduates of first-class colleges of that state unless there is need for others, at which juncture the state should accept graduates from first-class colleges of other states and lastly from other countries. This would lessen the oversupply of physicians.

I believe that security or the maintenance of security in the practice of medicine is of greater importance than office, heat, light, telephone, or automobile, even to the youngest practitioner.

Therefore a per capita charge of \$100 or more should be collected annually from each registered physician, as long as needed, to be employed for publicity and to mold public opinion. How long do you suppose untruthful advertising would be continued over the radio after a medical profession supplied with funds from physicians themselves began to educate the public? How long do you suppose it would take to pass a Tugwell Bill entirely unemasculated without senatorial corruption, a bill which would save the public on patent medicines alone about one-half billion dollars a year?

I believe that such publicity would awaken the foundations to the fact that their high-salaried socialistic employees had been misusing or misdirecting the uses of their funds.

I believe that it would not be long before the foundations would cooperate fully with and coordinate with the medical profession, realizing that the basic unit, the county medical society, is not only a purely scientific organization but the mouthpiece of medicine. At present that is overlooked or not understood by the scientific organization.

With the support of the foundations, by the use of their millions, the profession could achieve almost a millenium, a utopia so far as health and sickness are concerned.

I believe that the time is coming soon when we shall contribute at least \$100 apiece to such a publicity fund, when the great foundations will back or support the united medical profession, and when the federal government will call upon the medical profession to assume full responsibility for and control of everything medical.

I believe that with a controlling or proper representa-

tion, our medical profession, with full accord, will accept in unity this sacred trust of responsibility, and will demonstrate to the world how to provide the very best health and sickness service.

I believe that in all medical affairs and needs every kind of graft will be ended, politicians will no longer build the hospitals and supply the equipment and the patients, including themselves.

I believe that with central registration bureaus or social service exchanges in full use, only indigents will be admitted to clinics or dispensaries, or without charge to hospital beds; duplication and reduplication of effort and expense or shopping around will be eliminated; records of all patients and of their families will be faithfully filed.

I believe that the savings will justify the costs of the registration bureaus or exchanges, and that the economies through avoidance of waste and graft will pay the physicians a fixed fee for each service to indigents in clinics, at home, or in the hospital.

I believe that graduated charges will be regulated for communities, districts, or boroughs; that all nonindigent will pay for services according to their incomes—not their wages—and they may carry a card showing income and number of dependents.

I believe with Dr. R. G. Leland, Director of the Bureau of Medical Economics of the American Medical Association, that the working man does not want a corporation-provided medical service and a lowered wage (naturally with a saving to the employer), but he does want to choose his own physician in the good American way, and to be paid a little higher wage which will permit him to pay his physician.

I believe that organized medicine—the county medical society—will decide in the future which free services may be given and to whom, not in any way interfering with the sacred rights or personal relationship of physician and private patient.

I believe that adequate service will be easily rendered. The desires of each graduate to practice in city, suburban, or rural districts will be recorded, as well as his qualifications. The needs of various communities will be known, and will be provided for, with a physician happily located. Also people will be encouraged to live within reach of available, adequate service.

I believe that many of the so-called misfits in medicine, the unemployed, or unemployable, having found themselves, will be pleasantly located in some administrative position, and because of their medical knowledge will be of inestimable value to the community or state.

I believe that in this way individualistic service, personal relationship of doctor and patient, free choice of physician for every class, indigent and nonindigent, rich and poor, will be amply provided; that the already overtaxed citizen will not be burdened with ever-increasing costs and will be proud of the best medical service in the world.

Finally, I believe by these measures we shall be fulfilling our obligations to our patients and society—an obligation which the state as well as the physician owes society, especially the patient.—*Bulletin of the Medical Society of the County of Kings*, Jan., 1935.

Blood transfusion was performed as early as 1667, but the importance of matching the blood was not then realized, and the treatment was so frequently fatal that the French parliament prohibited the practice.—*Science News Letter*, Nov. 1, 1933.

* Editorial Note: Is submitted for publication and careful reading and is suggested as a thought stimulant in connection with the county, state, and national affairs in these times when the atmosphere is surcharged with sociologic and economic thought waves.

EDITORIALS

THE BETTERMENT OF MEDICAL LITERATURE

It is no new thing to talk of the bettering of medical literature, but we must look for improvement chiefly by an unsparing elimination, not supinely wait for a survival of the fittest. We work for this end without fear, without favor and above all without selfishness. We, therefore, appeal somewhat to medical readers and contributors.

It is small honor and less reputation to have read a textbook upon a given subject (or 2 or 3 textbooks if one be writing a truly epoch-making article) and to serve up a digest of the same as an original contribution in a journal. We are not speaking of careful compilations of what is really the literature of a subject but of the many articles which are practically nothing but abstracts of what is in the reach of nearly every one. Why, when there is a little to say, preface it with all the common things that other men have said before and said better? Say the little, report the rare case, offer your theory if it be new and honest, or your new argument in support of an old theory, but spare us the much writing that only obscures or entirely covers the gem it may contain. Thus even if your work be not wise or great it will at least be worthy of an *individual*.

Doctors are much like other persons and, so long as there be vanity and desire of personal advertisement, these evils will continue. It rests with the physicians themselves to improve the organs of their profession; the scientific portion of their journals is generally what they make them. They should learn to support only the periodicals which deserve their support and to write only really original or really valuable articles.

PRENATAL AND MATERNAL CARE

At the annual Health Institute meeting of the Woman's Auxiliary to the Philadelphia County Medical Society, held at the county medical society building, Apr. 9, 1935, Dr. Ruth Hartley Weaver read a paper on "Prenatal and Maternal Care."

Dr. Weaver considers, as others do, that the statement that the United States ranks highest in maternal mortality must be challenged, because the statistics of this country and foreign

countries are not comparable, due to wide deviations in standards.

The most prominent variations are:

1. Lack of uniformity in the national registration offices having more than one cause of death. It has been shown that where joint causes of death are given, the United States would classify 88 per cent as obstetric causes of death, while England and Norway would classify only 64 per cent as obstetric. Chili, Spain, and the Argentine have the same strict classifications in regard to maternal deaths as the United States. Runnel states that the very unfavorable light in which American obstetrics has been placed is a false one, being about 40 per cent too high.

2. The lack of uniformity in the definition of a live birth. Most countries, including our own, base their maternal death rate on the number of deaths per thousand living births. The term "live birth" has a different interpretation in the divers countries. In France, live births include only those infants that are alive when registered which may be any time within the first 3 days of life; in Spain live births include only those infants that survive the first 24 hours of life (most infantile deaths occur during this period). The United States defines a live birth as an infant that shows signs of life at the time of delivery.

3. The inclusion or exclusion of deaths from abortion in the computation of maternal mortality statistics. The United States includes abortion deaths in maternal causes; some foreign countries do not.

Besides these factors must be considered the inaccuracy and incompleteness of recording the cause of death as well as the inadequacy of birth registration.

New York, Detroit, Boston, and Philadelphia have completed a comprehensive study of each obstetric death for a given period; besides these studies various state surveys have been made or are still in progress. New York is making such a survey and Pennsylvania is preparing to do so.

There has been no appreciable reduction in the maternal mortality rate in Philadelphia for the past 15 years, albeit there has been a steadily declining birth rate during that time, an increasing number of hospital deliveries, and a decline in midwife practice.

The Maternal Welfare Committee of the Philadelphia County Medical Society, in review-

ing the deaths from important causes during the child-bearing period from age 15 to 45 in Philadelphia from 1926 to 1932, finds that tuberculosis heads the list. Heart disease comes second and puerperal deaths third; cancer, pneumonia, and diseases of the kidneys follow. Deaths from diseases of the heart and from cancer have increased notably, but deaths from puerperal causes have shown no appreciable decline.

This committee also made a thorough study of all the women dying in child birth in Philadelphia from 1931 to 1933 inclusive. Each death was investigated carefully by personal interviews with the hospital authorities, the physician in charge of the case, and, when necessary, the family. The facts thus obtained were assembled and studied by an Analysis Committee composed of 4 prominent obstetricians. Each case was considered carefully, thoughtfully, and impersonally, and every effort was made to render a just decision in each instance. There were 717 deaths reviewed in this series. More than half of them, 56.7 per cent, were considered preventable, and of this number the responsibility was ascribed to the patient in 43.5 per cent and to the physician in the remainder, 56.5 per cent.

The deaths in which the patient was thought to be at fault were as follows:

1. In all induced abortions, whether the operation was performed by the patient herself or by someone else.
2. In cases in which the patient registered too late in pregnancy to prevent complications, especially when known abnormalities had existed in previous pregnancies. Such lack of coöperation often was considered to be due to ignorance.
3. In cases in which the patient registered sufficiently early, but failed to report abnormal signs and symptoms to her physician, assuming the responsibility herself. This, too, often was due to ignorance on her part.
4. In cases in which the patient failed to coöperate with her doctor either by neglecting to return for routine examinations when told or by disregarding the advice given her. This included cases in which the patient did not carry out instructions or refused to permit hospital care when this was recommended.
5. In cases in which the patient or her family refused permission for interruption of pregnancy in toxic vomiting or other serious diseases, the single exception to this being in those cases in which religion interfered with such compliance.

The address stressed the responsibility of the medical profession in the reduction of maternal mortality and the need for physicians properly educating the laity in this regard, and the fact

that the general public must be taught that the high maternal death rate can be reduced and that the public is responsible in part for this reduction. The public seems to be in ignorance of the meaning of adequate maternal care, but lack of coöperation plays an important part.

Dr. Weaver detailed the important rôle that could be played by the woman's auxiliaries along educational lines. The members being public-spirited, sympathetic, and understanding could stimulate interest in this subject. They should solicit women's clubs, church groups, and various other organizations and see that such groups held a meeting every year to discuss the importance of prenatal and maternal care. The local county medical society would be willing to provide speakers to address such lay audiences on the subject of maternal care.

The Maternal Welfare Committee of the Philadelphia County Medical Society made an effort a year or two ago to communicate with the various women's groups by correspondence, but the responses were disappointing. Here is where the local woman's auxiliary can do much good by personally making the necessary contact with the lay groups and kindling the necessary interest among them.

This address of Dr. Weaver should stimulate the woman's auxiliaries to give their full support in coöperating with the various activities incident to prenatal and maternal care to the extent that maternal and fetal mortality may be reduced to an absolute minimum.

A PROPHECY ON HOSPITAL SERVICE OF THE FUTURE

An article with this title, written by Malcolm T. MacEachern, M.D., associate director, American College of Surgeons, Chicago, appears in *Hospital Management*, Apr. 15, 1935. The author states, in discussing hospital service of the future, one must take into consideration the 3 groups influenced, the public, the medical profession, and hospitals.

From the Standpoint of the Public.—The fundamental duty of the hospital is the proper care of the sick and injured. That much the public certainly has a right to expect. Every department and every member of the personnel will be increased in efficiency so that the patient may be given the best care possible. In the future hospitals will develop a more humanitarian aspect. They will be less institutionalized, more personal, more greatly characterized as possessing a living, breathing, vital heart and soul. Humanitarianism entails treating the patient as an individual, not merely as a member. The public is learn-

ing to look to its hospitals for protection or prevention against disease. It is necessary, then, that the means of accomplishing this service be more widely accepted. The health inventurium is a means of protecting the public through the prevention of disease. Small hospitals as well as large institutions will offer their facilities to legal practitioners of medicine for use in making periodic health examinations of their patients.

Along these lines the public expects improved service from its hospitals—and with it all a solution to the problem of economics. No prophecy can be made as to the success of the various plans of hospital insurance now being attempted. But it is safe to say that some workable scheme will be carried out whereby every individual, no matter what his financial status, will be given adequate hospital service for which, through some satisfactory arrangement, he will be able to pay.

From the Standpoint of the Medical Profession.—The physician expects coöperation from the hospital in his study of patients' conditions, with confirmatory evidence from the laboratories and recorded data so that the successes and reverses in medical science can be brought to light. The hospital can promote scientific research and contribute to scientific medicine by discovering new methods of diagnosis and treatment. The entire institution must be imbued with a spirit of scientific research so that all departments in the hospital will be able to advance the knowledge of the various activities which are essential to giving the best possible care to the patient.

The physician looks to the hospital to preserve his individual rights. Every member of the medical profession knows that it is to the benefit of the patient that he be treated by his individual physician. Whatever financial arrangement may be adopted by the hospital, the patient must be assured free choice of physician. This choice must necessarily be limited to the physicians and surgeons on the medical staff of the hospital or to those members of the medical profession who are acceptable to the hospital.

From the Standpoint of the Hospital.—In order that hospital service in the future may successfully meet the demands of both the public and the medical profession, it will be necessary that present-day standards of service be raised. Standardization should be progressive so that newer and higher levels may be reached. Before that desirable stage is achieved, however, it is necessary that all hospitals meet the minimum requirements which make for improvement in organization, in the proper utilization of existing facilities and personnel. These achievements

made by adherence to the minimum standard will better the quality of service rendered the patient. It must be understood that by meeting the minimum requirements hospitals are standardized in so far as the fundamental principles or essentials of efficient care of the patient are concerned, but in no way is the institution deprived of its individuality. On the contrary, the minimum standard tends to promote independence in adaptation to varying local conditions and encourages each hospital in individual growth and development. In the future hospital administrators will be men and women with no less than a college education, high personal attributes, sufficient executive training, and definite hospital experience. They will have executive and organization ability, understanding and firmness of judgment, breadth of view, and intelligence.

If hospital service of the future is to be more efficient, then the influence of politics will have to be removed from hospitals. Whether it is governmental, commercial, church, or fraternal, —all politics wreak havoc with the efficiency of hospital service. Just so long as political influence is permitted to determine who shall or shall not administer a hospital, just so long shall we have incompetent administrators and poor service.

In addition to better trained administrators, the hospital of the future will have better trained personnel. From the president of the governing body through the chief of staff, the nurse, the intern, the dietitian, the housekeeper, to the most menial worker in the institution—all will have to be more proficient.

So as to insure the best possible service in the future all hospitals will bear an intimate relation to their communities. They will coördinate their activities with other public health agencies in the community; they will coöperate with other local hospitals in order to prevent duplication of functions and to achieve the maximum of efficiency; they will take the lead in encouraging the organization of a health council in any community where no such body exists; they will see to it that the council is thoroughly representative of all local health agencies—the local health department, the medical profession, the nursing profession, the visiting nurses' association, social service agencies, welfare organizations, and other recognized groups serving directly or indirectly in the health and welfare work of the community.

So that the public may take advantage of the hospital service, the institution of the future will engage in a definite, continuous plan of public education. It will offer health education forums

regularly to improve the knowledge of the public. Through the spoken word, the written word, and by visual means it will make an effort to enlighten the public. As a result of such a well-conceived and properly carried out plan of public education people will arrive at a fuller and more accurate comprehension of the hospital's relation to themselves. They will be educated to understand and appreciate the benefits that are theirs for the taking; they will coöperate with their hospitals, thereby making possible the continuous improvement of hospital service throughout every succeeding generation.

THE PRESCRIPTION IS SACRED

If a man wishes to have his rights acknowledged and respected, he must show that he is determined to maintain and defend them. The doctor and the druggist stand in a relation of reciprocal benefit to each other. The doctor prescribes medicines and the druggist furnishes them. The doctor orders such remedies as his judgment and experience deem best in a given case. The druggist has no discretion in the matter. It is his duty to fill the prescription just as it comes into his hands and on no account should he be guilty of such treason and disloyalty as to try to induce the patient to accept a substitute for the remedy prescribed by the physician, or try to palm off a cheap and worthless imitation.

The prescription is sacred. It embodies the results of much observation and study. It is the instrument by which the doctor's knowledge is to restore health in a body suffering from disease. It is the means by which the doctor earns his living, and makes his reputation. The welfare of the doctor and the welfare of his patient make it essential that the prescription shall not be tampered with. It must be filled with the specified drugs, and dispensed according to the written directions. Unless the druggist will respect the prescription and be loyal to the doctor who issues it, the element of chance will work havoc in the progress of therapeutics as a science.

Can the druggist be taught the sanctity of the prescription? Many physicians, made cynical by experience, are skeptics, and prefer to eliminate the element of doubt by furnishing their own medicines. The druggist will cease tampering with prescriptions and meddling between doctor and patient if he sees that the doctor is determined that he shall do so, or go out of business. A doctor who is wide-awake, alert, and vigilant to see that his interests are pro-

tected, and his instructions carried out, will receive good service. Morality, like everything else, is taught by necessity, and the doctor who desires to be a success, professionally and financially, must lay upon the druggist the necessity of furnishing the exact remedies ordered in the prescription on penalty of having his dishonest methods published.

DIPHTHERIA ANTITOXIN AND THE PENNSYLVANIA STATE BOARD OF HEALTH

In the April, 1935, number of the PENNSYLVANIA MEDICAL JOURNAL, on page 536, appeared an article entitled "Antitoxin Like Whiskey Improves with Age," which was reprinted from *Science News Letter*, Mar. 23, 1935. This article had reference to the distribution by the Pennsylvania State Health Department of allegedly "stale" diphtheria antitoxin.

Dr. Edith MacBride-Dexter, secretary of health, has written a letter to the PENNSYLVANIA MEDICAL JOURNAL to the effect that the State Department of Health has not argued particularly on the question of the potency of the antitoxin involved in the recent controversy. Of the antitoxin recalled from all over the state after having been kept under conditions of all kinds, only 4 packages were tested by the Gilliland Laboratories, and on the strength of this the entire lot was updated 2 years. The contract of the State Department of Health specifically requires that at the end of 18 months the laboratory would replace outdated antitoxin with a fresh product.

The label on each package of antitoxin states that the product is to be kept at a specific temperature. Secretary MacBride-Dexter is of the opinion that the publication of an article such as was reprinted by this JOURNAL from *Science News Letter* might lead the doctor or the pharmacist to believe that antitoxin may be kept under any condition and to any age and yet retain its potency.

GROUP HOSPITAL INSURANCE*

That group hospital insurance is a timely subject for discussion is evident from the fact that group hospitalization has been discussed and prepared for adoption in Cleveland, Ohio, and Washington, D. C. Splendid analyses of the latter proposed plans were prepared after personal visitation by Drs. Weinberg and Lukens, serving as members of our Medical Economics Committee.

These reports, which should be reviewed by every interested member of our Society, appeared in the PENNSYLVANIA MEDICAL JOURNAL as follows: The Cleveland Plan on page 949 of the August, 1934, issue, and the Washington Plan on page 852 of the July issue. Additional information regarding the latter plan, which appeared in the Mar. 17, 1934, issue of the *Pittsburgh Medical Bulletin*, was reproduced on page 676 of the May, 1934, issue of the PENNSYLVANIA MEDICAL JOURNAL.

We refer at length to these previous painstakingly prepared reports and comments because of the great importance to the people of Pennsylvania who may later be offered such a plan, and because of its importance

* See page 744 of this issue of the JOURNAL.

to the practicing physicians and to the hospitals of the state.

Early in 1933 the Public Relations Committee of The Medical Society of the State of Pennsylvania pointed out that while only 1 person in 17 in the course of a year receives hospital treatment, the costs of hospitalization alone equal the total amount spent during the year for all other forms of medical care. Also that only 10 per cent of all patients treated by physicians in private practice are hospitalized.

The Cleveland Hospital Group Insurance Plan, it is said, is based on an estimate of each insured individual spending but 1 day per year in the hospital, and attention has been drawn to the fact that this being the case, the rates for such insurance ranging from \$7.50 to \$13.00 per year provide amply for paying the hospitals.

The Medical Society of the District of Columbia is setting a fine example to other medical societies through having actually established offices in which are centered many phases of community health service.

The report of the Committee to Study the Needs, Care, and Costs of Services rendered the Sick and Injured of Louisville and Jefferson Counties (State of Kentucky) for the year 1932, published in the February, 1935, issue of the *Kentucky Medical Journal*, pages 52-103, included the following comments regarding hospital insurance:

Hospital insurance, a rather vague term, has come to be understood by the public to mean offering for sale a designated service and accommodation in a hospital for a limited period of illness at a nominal sum paid in advance.

The holding of such contract for hospital care is sometimes referred to as membership, and the sum paid for the contract is called dues. It requires no unusual astuteness to discern the fact that the incentive to hospital boards and superintendents to consider such plans had its birth in the need for either stabilizing or increasing hospital income . . .

Physicians are conversant with the financial troubles of hospitals, but they are also aware of the responsibility of giving careful consideration to this new adventure . . . Unless the schemes for hospital insurance actually save the public on its medical costs bill, they cannot give approval.

Studies of life expectancy show that about 2 per cent of the population is incapacitated by illness throughout a year and that the average time so lost is 8 days per employed person per year . . .

There is a deeper significance in the interest of the physician in hospital insurance. . . . Unless hospital service be a necessity, its purchase becomes an extravagance. . . . The sale of memberships in hospitals encourages the public to become more hospital-minded. . . .

Those responsible for hospitals imitated industry in its nightmare of inflation, which came to an abrupt end in 1929. Overbuilding by gifts, bonds, or taxation created a bed capacity and an overhead of management that with the lean years has created a panic psychology. . . .

After making the above comments the Economics Committee of the Jefferson County (Ky.) Medical Society outlined the following as acceptable:

1. That the plan be a community proposition open to all reputable hospitals, controlled by the hospitals, and conducted for public service and not for profit.

2. That all the private hospitals of the community, both open and closed, embrace the plan. Otherwise the

subscriber—the patient—is hampered in that free choice of hospital and physician which should be his. Any infringement of this freedom of choice is not to be condoned by medical organizations.

3. That the hospitals furnish a uniform service and a uniform charge agreed upon among themselves, and definitely and clearly specified in the agreement with the subscribers; in this way any competitive feature is removed as between hospitals, and the patient (subscriber) is insured of the same degree of service in whatever hospital he may choose.—*Pittsburgh Medical Bulletin*, Apr. 27, 1935.

DOCTORS ORGANIZE FOR ECONOMIC PROTECTION

The first organized effort of New York physicians to elevate their profession to the economic status of other professions in a manner which will affect every human being in America was inaugurated during the early part of May, 1935, by the Physicians' Equity Association of America, Inc. The organization has been in process of formation for 18 months and has opened offices at 745 Fifth Ave., New York City.

To secure funds for an immediate membership drive among the 13,000 physicians in New York State and later among the 156,000 medical men throughout the nation, at \$3.00 per membership, a benefit theatrical performance was given May 26.

A series of social events to interest prominent women in the benefit and in the aims of the association was initiated.

Dr. Robert Emmett Walsh, of New York, is president of the Physicians' Equity Association which includes among its aims the elimination of free clinic service for patients who can afford to pay for more exact medical attention, the assurance of reasonable compensation to the physician for every professional service rendered, the introduction of bills in state legislatures to correct abuses now rampant in the practice and regulation of medical, surgical, and other conditions affecting public health, the opposing of such legislation as tends to legalize the irregular practitioner, the protection of the public by removing from the profession all unqualified healers, and the creation, on both sides, of a clearer economic situation between patient and doctor.

The membership represents no group, clique, religion, or political belief. The association is devoted entirely to the economics of medicine. It has obtained the first charter granted to physicians exclusively for a Physicians' Credit Union, a coöperative bank under state supervision for the exclusive use of doctors, to deposit in and borrow from.

Other officers of the association are Dr. Edward R. Cunniffe, first vice-president; Dr. Judson C. Fisher, second vice-president; Dr. Seymour Fiske, secretary; Dr. William M. Cooper, treasurer; and Edward J. Kelly, executive secretary.

Among the other members are: Dr. Franklin Welker, president, New York County Medical Society; Dr. John A. Hartwell, ex-president, New York County Medical Society; Dr. Daniel Dougherty, secretary, New York State Medical Society; Dr. Samuel Kopetsky, editor, New York County Medical Society; Dr. J. J. Eller; Dr. Harold M. Hays; and Dr. Nathan B. Van Etten, ex-president, New York State Medical Society.

It is planned to include in the membership all recognized dentists, osteopaths, and a number of other spe-

cialized groups of physicians. Separate committees will be formed to handle their particular problems.

In connection with a luncheon at the Hotel Lexington, Dr. Fiske, secretary, said:

"The medical profession has divided honors with the farmers as the most socially backward of all the major occupational groups in the United States. Falling prices and mounting indebtedness have driven the farmers to unite in giving attention to the matter of their survival. Doctors heretofore have held aloof from politics in all matters touching medicine, and their social blindness has been nothing short of colossal.

"To the average individual the doctor's bill represents an item outside the family budget, an unpleasant extra. Even to the most fair-minded, it readily appears excessive. This is the chief reason for the impression most people have of the doctor as a person of prosperous means. Statistics of the doctor's economic status tell a different story.

"In 1929, at the peak of prosperity, one-half the physicians in the United States had a net income of \$3800, and one-fourth were earning \$2300 or less. About 2 per cent had plutocratic incomes of \$20,000 and over. By 1934, according to the figures of the American Medical Association, net incomes had declined 50 per cent. This loss fell most heavily on the poorest physicians, earning between \$1000 and \$2000—in their case, between 1929 and 1930 the shrinkage amounted to 195 per cent. This group had to go into debt to stay in practice. In some instances doctors with years of experience are driving cabs or working at carrying valises.

"Social and governmental factors will become forces in determining the future status of medicine, under a régime of increasing governmental activity. Like the pessimistic men of business and others in the industrial field who look forward to coming changes with less panic, doctors, too, can no longer be in doubt that the future lies somewhere over on the left.

"The physician's conservatism was patterned after that of the competitive system of which he was a part. As boss in his own field, with little threatening competition from hospitals, free clinics, and public relief agencies, his work was carried on, involving, outside his livelihood, a variety of services on public health boards, commissions, councils, panels, faculties, and committees of investigation. Tradition, accordingly, has given him a concept of himself as the servant of mankind. The larger responsibilities of such a concept have always been keenly felt and lived up to by men most alert in the profession, men of preëminent abilities whose careers have brought gain to knowledge and been distinguished by devotion to public health.

"Recently some of these men, spurred by a depression which has shaken society loose from its foundations, have come to the realization that not only their personal situation but the manifold and difficult problems involved in continuation of medical services and maintenance of standards fundamentally are social problems, even before they are matters of economic concern. Those conservative critics who see in the Physicians' Equity Association a destructive organization eager to introduce socialized medicine may have it called to their attention that the program of the Equity is in none of its features opposed either to democratic government nor to the tradition of Aesculapius, the ancient and honorable tradition of private practice.

"The Physicians' Equity Association of America is the first attempt to put medicine on a new basis to meet the new conditions forecast by a changing order with its greatly extended machinery of government.

"It is the hope of the Equity's founders that their efforts in behalf of medicine will bear concrete results, not merely in bettering the conditions of private practice but also in providing the instrumentality for an adequate health service, and so forestall imposition of socialized medicine in a vicious form by an ignorant bureaucracy, with the resultant lowering of standards. Existing medical societies are engaged in totally different aspects of medical life. Because of their size and many-sided interests they would be limited in their approach to the problem. Their coöperation can be counted upon when necessary, but the specific economic task must be carried out independently through the Physicians' Equity Association of America.

"The lack of close connection between the medical profession and the various agencies delegated by federal and local governments to study the questions of health insurance and workmen's compensation is illustrated by the following situation in which the Physicians' Equity brought about a change. The Committee on Social and Economic Security, of which Frances Perkins is chairman, had no medical representation on its important subcommittee studying health insurance until Dr. Walsh, in the name of the Equity, addressed a letter to Secretary Perkins calling attention to the fact. The 2 individuals so titled by their colleagues on the committee were not doctors of medicine, but doctors of philosophy!

"Physicians are almost unanimously opposed to the Byrne bill of which the *New York Medical Weekly* writes: 'In the face of all informed opinion, it combines cash benefits and medical relief . . . The Byrne bill should be strenuously opposed by the antagonists of compulsory health insurance and by those who desire to see it tried on favorable terms.' As a result of the Equity's action, a necessary and important step was taken in voicing opposition of the medical body to enactment of this bill, in adding to the committee sitting in Washington the distinguished services of Dr. Alexander Miller.

"The Physicians' Equity, working with county medical societies, is endeavoring to maintain direct connection with Albany, so that we may not see horrors done in this state in the name of health insurance and necessary amendment of the workmen's compensation laws, which would burden the taxpayer with huge sums of bureaucratic emolument and make physicians the chattelmen of ignorant, inefficient, and corrupt local administrative boards.

"Many of the abuses connected with medical service have arisen in the department of workmen's compensation. These malpractices, reacting equally against physicians and patients, have grown out of suppression of the free choice of physicians and investment of the insurance carriers and employers with control over treatment. In the past, insurance companies and employers frequently sent injured workmen to hospital clinics for treatment and thus aided the hospital racket by the substitution of a cheap and inferior type of medical service in the handling of these cases. Vicious discrimination likewise has been practiced by insurance carriers trying to save money for themselves and the employer against physicians prescribing more expensive medicines than those used in the clinics or refusing to make use of inferior products put out and widely advertised by some of the drug companies. Contemplated amendment of the workmen's compensation laws is aimed at correction of such evils, which have been greatly fostered by competition from the hospitals in a field in which clinics have no proper business.

"In the past few years through the persistent efforts

of organized medicine, the picture has brightened somewhat but much remains to be done.

"It is news to nobody that many persons in the depression who could afford to pay for medical care have been going to free clinics and others operating on a semi-free basis. These people have effected a saving at the expense of both private practice and public funds. The Physicians' Equity has sent out 400 questionnaires to men working in dispensaries in this city, asking for data concerning the efforts, if any, made in their dispensaries to ascertain the economic status of persons applying for medical service. It is cooperating with organized medicine, furthermore, in an effort to establish a central registration office for clinic patients. The Equity recognizes that there are substantial numbers of persons applying at dispensaries who are unable to pay regular fees, but who would be willing to pay sub-standard fees. Through a coordinating committee of the New York County Medical Society, it is now attempting to arrange a schedule of such fees and machinery for putting the project into being. The plan involves creation of panels of physicians to serve in the respective localities and an advisory council that will investigate the ability of patients to pay minimum fees.

"The great number of unemployed and persons whose earnings are insufficient to pay for medical care are a charge upon the government. If the leaders of industry and political thought still are in doubt of this, the doctors are not. It has been estimated that the medical profession's contribution to society in the form of free medical care averages from \$365,000,000 to \$375,000,000 per year; 156,440 physicians of the country, under the changed conditions, cannot afford to carry a burden of this magnitude, which properly belongs to the state.

"From the physicians' standpoint, it appears ironically humorous to find a writer in *New Masses* listing clinic practice among the doctor's professional privileges. There is about 1 physician to every 800 of the population in the United States. New York City has 13,085 physicians—1 to 540 of population. According to figures submitted by Dr. S. S. Goldwater, commissioner for the Department of Hospitals, 1069 physicians are doing clinic work in New York City. Of these, 71 are receiving compensation—usually \$45 per month, which munificent sum calls for 3 sessions a week. In one especially heavy clinic, almost entirely looked after by 4 doctors, \$900 a year is allowed for each man, and this demands 6 afternoons a week from each of these favored individuals. The clinic service has acquired a volume of 2,200,000 visits annually. At some clinics the crowding is so great, physicians are required to see and prescribe for 50, 60, or even 80 patients regularly at a single session.

"The 998 physicians who receive no remuneration from clinics in New York City hospitals are taxed for municipal relief in addition to the free gift of their services. To pay them \$50 a month, the amount suggested by the Physicians' Equity, would add some \$620,000 annually to the city's operating expenses, scarcely an intolerable burden upon the taxpayer. And nothing to bear comparison with the rich pork-barrel sums contemplated under the Byrne bill to introduce compulsory health insurance!

"The Equity contemplates making a survey covering the following factors: Statistics on the earnings of medical men; poverty and destitution among medical practitioners, with complete information on the number and location of doctors subsisting on incomes below the standard for professional men in their region; statistics

on physicians subsisting on federal, state, or local relief; geographic distribution of physicians, with reference to the population served—a study of demand and supply for medical services; medical fees, how they are determined, and what their range is in given localities; how public relief and other public medical undertakings are affecting the earnings of physicians, with particular reference to remuneration of physicians engaged in such work; collection of fees, the extent to which physicians are carrying patients on a credit basis, and total of uncollected fees.

"This information will then be analyzed, tabulated, and made available to the medical profession and to the public. It will provide the factual basis for action to solve the economic problems of the profession.

"In particular, it will make possible authoritative recommendations along the following lines: Redistribution of available medical forces in accordance with national needs, diverting unemployed or destitute doctors to sections where their services are in demand; mutual aid efforts by the medical profession itself, in the form of credit unions, insurance, etc.; protection of physicians against exploitation by public or semi-private clinics, medical aid undertakings, and the like; education of the public regarding its obligations to the medical profession in terms of fees, prompt payments, adequate remuneration for clinics and hospital service.—*Sutton News Service, Inc.*

A special article entitled "Doctors Organize for Square Deal," which appeared in the *New York Times*, May 19, gives a very good résumé of the above report for the information of the public. Although the depression was the immediate cause for the founding of the Equity Association, some of the matters with which the movement will concern itself have perplexed the profession for years. It further advises that the Physicians' Equity Association, according to its platform, believes that the doctor in private practice is deprived of income which should be his by the wholesale free treatments given by hospitals and dispensaries to persons able to pay for medical service. The report shows that this abuse has been growing for years, and since the depression the number of persons who get free dispensary treatment, although they can well afford to retain their own physician, has been increasing. It further advises the public that under the present state statutes physicians serve, with a few illegal exceptions, in dispensaries without pay, the theory being that they are getting valuable experience. Much of the same idea prevails in hospitals. Both public and private institutions render bills for board, lodging, and medical attention to those persons willing or able to pay. The institutions, however, do not compensate the attending physicians with any part of the sum they have charged for services rendered. Meanwhile many patients who can afford a doctor are kept from going to one. Pay for dispensary work will be urged. It further advises the public that the Equity Association is also up in arms against the irregular practitioners who, although not educated in medicine, are nevertheless getting about \$125,000,000 a year in fees from the American people.

The creation of a better economic understanding between doctor and patient is another object of the association. Though it is regarded as almost impossible to standardize fees, especially for surgical operations, the association hopes to make the charges for services as reasonable as possible. On that basis arrangements could be made for substantial cash installments when the services are rendered.

COMMENTS AND EXCERPTS

Russian Surgeon Replaces Lost Finger with Toe.—Transplantation of a toe to replace a forefinger lost in an accident was demonstrated by Prof. M. I. Kuslik of the Vreden Traumatological Institute at the meeting of the Leningrad Surgeons' Society. The patient can now bend his forefinger, which used to be the second toe on his foot, at will. Prof. Kuslik followed the transplantation technic devised by Prof. Vreden which has been successfully used in 3 similar cases.—*Science News Letter*, May 4, 1935.

Now It's Cevitamic Acid Instead of Orange Juice.—A baby's life gets safer every day. The latest aid to infancy is a tablet called cevitamic acid. The name is coined and means an acid containing vitamin C.

Its successful use in treating babies with scurvy is reported by Drs. Arthur F. Abt and I. M. Epstein of Northwestern University Medical School (*Journal of the American Medical Association*, Feb. 23). Most modern babies are given orange juice or tomato juice, both of which contain vitamin C, to protect them from scurvy. For babies who cannot retain either of these juices or who have been deprived of them by circumstance until scurvy has developed, these physicians have successfully used cevitamic acid in treating the disease.

The acid is commercially prepared from vegetable sources, such as cabbage, paprika, orange or lemon juice, and comes in tablet form.—*Science News Letter*, Mar. 2, 1935.

Photograph Heart Sounds by New Method.—A method of photographing heart sounds has been devised by 3 Iowa scientists: Dr. Walter Bierring, president of the American Medical Association, Dr. H. C. Bone, and M. L. Lockhart, all of Des Moines (*Journal of the American Medical Association*, Feb. 23).

The apparatus, called the electro-stethograph, is said to have advantages over other methods of recording heart sounds in current medical usage.

A viewing screen is used on which the vibrations from the heart can be seen at the same time the physician is listening to and photographing the heart sounds. This aids in obtaining good photographic records and in detecting certain abnormal sounds and locating their position in the heart cycle, a feature of particular aid in training medical students. The photograph provides a permanent record of heart action.—*Science News Letter*, Mar. 2, 1935.

Rickets Cured with Caviar in Russia.—Caviar may be a delicacy to most people but to children of Soviet Russia it may become a tasty substitute for cod liver oil because, like the fish oil, it is rich in anti-rickets vitamin D.

A daily dose of 2 teaspoons of caviar was prescribed for one month to a group of 20 babies suffering from rickets. Seventeen of the babies were completely cured by this epicurean treatment, Prof. M. Lepsky reports.

Caviar from sturgeon and carplike fish was used in this experiment. The caviar of various fishes differs but slightly in composition, however, so it is possible that other kinds of caviar may prove equally effective as a cod liver oil substitute.—*Science News Letter*, Apr. 20, 1935.

Eye Cataracts Linked to Way Body Uses Sugar.—A new theory of the cause of cataracts in old people and in diabetics was presented by Dr. Helen S. Mitchell, of Massachusetts State College and Battle Creek College, Michigan, to the American Institute of Nutrition.

Dr. Mitchell found that she could produce cataract in rats within 2 weeks by feeding them a little more than a third of their ration as galactose. This is a sugar not found as such in nature but formed in the body from milk sugar. As a result of her studies, Dr. Mitchell believes that some cataracts in humans, particularly those occurring in diabetes, are due to faulty handling of sugar by the body.

The cataracts produced in her rats were the same kind as occur in diabetes and in old people. Dr. Mitchell emphasized that her work is only beginning and much more study is needed to solve the mystery of why cataracts form.

She called her work "merely opening the door to much more investigation." Cataracts, she explained, are like "lumps of egg white cooked." They are opaque and cannot be cleared any more than egg white can be uncooked.—*Science News Letter*, May 4, 1935.

New Cure for Stubborn Wounds.—From a clue provided by an insect, entomologists of the United States Department of Agriculture have discovered a new way to heal stubborn wounds quickly, painlessly and cheaply. The new treatment is the application of a solution of allantoin, a bland, odorless, harmless, and easily obtained product found in both insects and plants.

The insect that gave the clue to this discovery is one of the flies—in the maggot stage—that gained fame as a medical aid on World War battlefields, where an Army doctor found that wounds infected with maggots healed better and faster than wounds without them.

Government entomologists, who have developed methods for rearing and shipping sterile maggots to hospitals, have at the same time sought the secret of this maggot's power to heal. Dr. William Robinson, of the Bureau of Entomology and Plant Quarantine, now finds that allantoin, which is given off by the maggots as they work their way through a wound, is responsible for part of this power. Allantoin is not a new discovery. Dr. C. J. Macalister, who used it successfully 23 years ago for ulcers, reported that European peasants had long applied the roots of comfrey, which contain allantoin, to sores.

His recent tests, Dr. Robinson says, show that allantoin is particularly useful for nonhealing wounds, such as chronic ulcers and extensive burns that refuse to mend. After a few treatments, pinkish granulation tissue begins to grow and soon the tissues are knitting together rapidly. A specially promising feature of the new treatment is that it can be made to control healing. Healing from the bottom up can be ensured in a deep wound by applying the allantoin solution in a small packing at the base of the wound and covering the sides with vaseline. General granulation can be promoted by filling the wound with gauze well saturated with the solution.

MEDICAL ECONOMICS

Testing Insured Hospitalization. Group hospitalization insurance is about to be inaugurated by 53 New York hospitals representing more than half the beds in the city's healing institutions. Under what is described as "a 3-cents-a-day plan" membership entails payroll deductions of 90 cents a month—though a flat payment of \$10 a year may be substituted—and is open to all gainfully employed persons under 65 years of age.

The dues entitle the subscriber to 3 weeks' occupancy of a semi-private ward in any year, with reductions from the regular rate if a longer stay is necessary or if

private accommodations are desired. All cases except mental, contagious, tuberculous, and venereal are covered by the plan.

Benefits are restricted to hospital care, and do not include physicians' and surgeons' fees, thus avoiding involvement in the currently raging dispute over the socialization of medicine. Professional ethics are also recognized by the requirement that admission is contingent upon the recommendation of the subscriber's physician.

Though the plan thus falls short of providing full medical service, it is a step forward in an experiment that has been widely discussed. Hospital costs are generally inflexible, differing from bills for professional services which are often scaled down to fit a slim purse. With provision for that need wage-earners requiring hospitalization will be relieved of a major anxiety. The hospitals themselves will be assured of compensation, and doctors will enjoy better prospects of payment, through easing of the strain on the patient's resources. Extension of hospital service and the greater use of established hospital equipment, by reason of increased availability, are recognized as desirable objectives, and this extensive test of the plan may be expected to prove or disprove the pleas made for the plan.—Editorial, *Evening Bulletin*, Phila., Pa., Apr. 3, 1935.

An Undesirable Anomaly.—The more imminent danger of compulsory health insurance has served to divert attention and criticism from the aims of the Medical League for Socialized Medicine. Going further than most of the lay reformers who desire to modify the economic pattern of healing, this little group of physicians is prepared to abandon the entire framework of the past for the dubious shelter of governmental employment.

It is difficult to understand how physicians can be willing to throw overboard the traditional personal relationship between their patients and themselves unless they view healing as no more than a mechanical trick of fitting designated remedies to specified ills. Unfortunately this narrow concept of practice dominates the attitude of most of those endeavoring to subordinate the doctor to bureaucratic control. It so far colors the theories of the Medical League for Socialized Medicine that this body of doctors wishes to destroy the free choice of physician, giving district hospitals the right to designate medical attendants for patients within their jurisdiction. A strange form of socialism this, which takes from the mass of the people a fundamental right which they have always jealously cherished.

The platform of the Medical League for Socialized Medicine does not derive strength from comparisons with the postal service or the schools. In the handling of the mails, it is the system rather than the individual which counts. While this is not true in teaching, mass methods are nevertheless more practicable in education than in healing. The teacher deals with classes, but every medical act is individual and gains in effectiveness as it is adapted to the requirements of the particular patient. It is this modification of general principles to the individual organism which makes for quality in practice, and it is precisely this element which is lost under compulsory health insurance or the impersonal system advocated by the Medical League for Socialized Medicine.

In return for the sacrifice of independence and opportunity which they are prepared to make, the medical advocates of state medicine envisage secure jobs and a steady income for all practitioners. This halcyon dream

is shattered by the experience of the very teachers and mail-men whom the officers of the League hold up as an example. When the political bosses of Chicago emptied the treasury, the teachers of that city went unpaid for months. The story of the depression is replete with wholesale dismissals of government employees and extensive pay cuts. Teachers have been on waiting lists for years without seeing job or salary.

Fortunately the misguided members of the Medical League for Socialized Medicine are not likely to have an opportunity to suffer the consequences of their unsound scheme. In a state which must look to taxation for all moneys, it is not feasible for the government to take over the responsibility of medical care for the entire population. Capitalist nations do not furnish suitable soil for socialized medicine.—Editorial, *N. Y. State J. M.*, Apr. 1, 1935.

Decentralization in Medicine.—Dr. Beaumont S. Cornell, Fort Wayne, Ind., states that the time-honored patient-physician relationship, so complete as to control the economic and professional phases of practice, has been disturbed especially in the past 20 years by new methods of practice devised by doctors and by new economic plans of practice usually projected upon the profession by nonmedical groups. Both types of change indicate the encroachment of industrial, mass-production philosophy into a service whose success is bound up closely with the personal attributes of the individual physician. The former development began with the specialist movement, and the latter was inspired chiefly by the hope of middleman profit. A great, and often unrecognized, decentralization has taken place in the interim. Thousands of general practitioners have installed their own clinical laboratories and roentgen-ray equipment partly as a natural defense program against the inroads of specialism. That particular phase of specialism, which by delegation of its work to lay persons suggested the intrusion of industrial methods, has been partly absorbed already by the general practitioner.

The grouping of specialists was the next development toward centralization of service. The study by specialists, in cases where more than one had to be consulted, caused unpleasant inconvenience and time loss to the patient. For this reason, the clinic group enjoyed a deserved popularity and justified its creation as a concept of service. However, the very serious internal problems of expense and professional harmony, and no less the difficulty of "handling" the nonorganized portion of the profession, have demonstrated at length that 80 per cent of all clinics have failed financially. Only the most astute of physicians can hope successfully to offer to the public this most modern type of centralized service at a profit, or, indeed, without great loss. Successfully conducted clinics confer an excellent service to difficult cases, and sometimes become medical institutions with beneficial influences on medicine in general. The surgeon must be the central figure for he is one of the 2 people in medicine glorified by the public. The mass-production methods, of necessity employed in clinics, with subemployment of nonmedical help for technical procedures, is the most outspoken example of the adoption of industrial methods in medicine, and clinics are popular in spite of, and not because of, this tendency.

Much decentralization has taken place in this field as well. Several large clinics have accepted bankruptcy and are operating in receivership at this time.

People insist upon advanced types of medical service, but balk at the price. It would ill behoove anyone to criticize the public for this attitude, as it is, after all,

the nature of the people universally to insist on what they want and at their own terms. Therefore, if the profession cannot give the public the service it demands, the public will try to force us to do so, and on its own terms. Are we really doing all that we can to assist them to an intelligent viewpoint?

The essential fallacy of most of the modern attempts from without to pour us into a new economic mold arises from several sources. There is the lesson of life insurance and other types of fraternal and mutual protection which, so far as we can judge, have been successful in their services to the public. The burden of illness, which is as much our inheritance as death, does not inspire the same willingness to budget against it. Would health insurance solve this problem as it has solved the financial problem of death and estates? Government medicine, even in small doses, is, from the politician's angle, one of the finest medicines. The temptations for paternalistic administrations must be obvious. Then we have the clever, industrial magnate who, having succeeded in his own field, tries to be helpful by suggesting industrial and mass production methods for our profession. Being "survey-minded," the public forms a group to find out how much is spent on medical care, and when they finish they find that the physician's part of the expense is the least of all.

The disturbance of the patient-physician relationship resulting from the specialist and clinic movements was slight as compared with movements not intrinsic to the profession itself but promulgated, with varying degrees of success, by nonmedical individuals and groups. It is this "manager" type of movement which must arouse the physician's genuine concern, and inspire suitably strong adverse reactions if we are to avoid greater, unknown, and presumably undesirable changes in the broad sociologic status of the profession.

All types of insurance medicine are built on the hope of profit.

The Veterans' Act of 1924 started real government medicine in America, and it was the child of an administration not particularly paternalistic. Strangely enough, its more serious corollary of extending service to relatives of veterans was squelched by an administration thought by many to be truly paternalistic.

Taking into consideration the many insurance, industrial, contract, government, fraternal, and other forms of medicine at present in operation in America and other countries, it becomes evident that, although the surface has been merely scratched, the movement is well under way and promises to increase its activity year by year. Unfortunately, the physician receives the least consideration of the 3 entities comprising the triangle of patient, business man, and physician. With a very few exceptions, the medical fee is always dictated by the company. Salaries are offered in government schemes. Under the National Insurance Act in England a capitation method of payment is adopted, so that the panel doctor's income depends on the number of persons on his panel list. The selling point of insurance schemes to doctors is the ease of collections, but almost always the fee is limited by agreement. When this is not the case, there are reasons to suspect actuarial preparation of an inexpert type. In spite of the fact that the physician is the sine qua non of all such plans, he often capitulates because of personal financial need. It is an open question as to the attitude of the newer medical graduates, many of whom have been exposed during their college courses to much socialistic, and, allegedly, to much communistic, doctrine. On the whole they seem to be in line with established methods of practice.

There is a combative, and also a constructive, course open to us to stem the tide of advancing centralization in medical service. The former is the use of political pressure. It costs only 3 cents to write to the senator or representative in congress. It takes only a few minutes to talk to patients and show them the fallacies of centralized medicine. The constructive course is the more important but requires not minutes but years for accomplishment.

In this greater and slower effort the American Medical Association is doing most excellent work through its Department of Medical Economics under Dr. Leland.

There is a vast inertia of safety for the profession in the near future, built on custom and the desire for personal service from the physician himself. Let it be realized in the clearest manner that the backbone of the medical profession is the general practitioner. Centuries of faithful service, often ill-paid, but unstintingly given, happy only in the sense of a task well done, frequently a pathetic figure from the economic standpoint, the general practitioner has conferred the greatest benefit upon the profession as a whole, and has created one of the few apotheosized figures in the popular imagination—the family doctor. The psychologic influence of this figure is the most stable factor in medical economics today, and, in the face of portentous changes, it is our main anchor.—*Jour. Indiana State Med. Ass'n*, Jan., 1935.

PHYSICAL THERAPY

Fever Therapy in Arthritis

The use of fever, artificially produced by physical means, has been sufficiently promising in the treatment of arthritis to warrant careful consideration. In gonorrheal arthritis, particularly if the treatment is properly given in an institution equipped for the work and if the fevers are long enough and high enough (over 105° F. for 5 hours or longer), the results have been startling. Numerous workers (Bierman, in New York; Simpson, in Dayton; Hench, at Mayo Clinic; and many others) have reported 90 per cent or higher actual "cures" by this method of treatment.

It has been stated that fever therapy "bids fair to supplant all other methods of treatment"—not only in gonorrheal arthritis but also in all other forms of gonorrheal infection.

In other forms of arthritis, the results have been encouraging. In chronic infectious (atrophic) arthritis, Philip Hench and his coworkers at the Mayo Clinic have reported upon a study of 147 cases, as follows: Ten per cent symptom-free, 25 per cent markedly improved, 35 per cent moderately improved, and 30 per cent little or no improvement.

In senescent arthritis, however, the results are not at all promising, and the use of fever therapy in this type of case is probably inadvisable.

The Importance of Massage as Practiced by the Physician. (*Med. Rec.*, 140:254, Sept. 5, 1934).—It is remarkable that few doctors practice massage, and it is still more remarkable that medical men who know massage and its scientific foundations and appreciate its results avoid applying it. A great number of celebrated physicians did not think it beneath their dignity to practice massage personally. In their clinics, writings, and lectures they have created an important position for massage in therapeutics. Trousseau of Paris, Frerichs, and von Bergmann of Berlin, Castex of Buenos Aires,

and Nothnagel of Vienna are glorious names indelibly written in the history of modern massage.

The reason why so few physicians practice massage may be found in the fact that it requires time. It may be observed that patients are willing to pay for indiscriminate rubbing by a lay-masseur and one might draw the conclusion that the patient would prefer to pay a doctor who is really skilled and trained in massage.

The practice of massage as well as the other modalities of physical therapy brings patient and doctor closer together than any other therapy. The doctor employs hand work in the literal sense and gets far more direct information about the bodily condition.

Four or 5 different manipulations commonly used in massage are described in the textbooks. If we observe how a competent physician gives massage, we find that he changes and varies his manipulations, his friction, kneading, and stroking according to the requirements of each case.

Only a physician can recognize a change in the pathologic picture from day to day. Clinical experience has taught him when and how and with what means at his disposal different conditions, such as edema, a scar, or an adhesion will be best influenced through his manipulation.—*Archives Phys. Therapy*, Mar., 1935.

Dosage in Ultrashort Wave Therapy. The Influence of Intensity of the Electric Field and of Frequency on Staphylococci and Streptococci in Vitro (*Strahlentherap.*, 50: 351, June, 1934).—By the method of using ultrashort waves of 8-16 m. there is no proof of direct effect by the electric field or the frequency, none for effects of selective heating on staphylococci in distilled water, in a physiologic NaCl-solution or in bouillon, nor on streptococci in milk. Despite all, the authors emphasize that the negative finding does not affect the great success of this therapy in purulent infectious processes.—*Archives Phys. Therapy*, Apr., 1935.

Influence of Ultrashort Waves on Malignant Tumors (*Strahlentherap.*, 51: 309, June, 1934).—The authors chose the stock of Ehrlich's carcinoma of mice presenting the picture of peritonitis carcinomatosa, which in intraperitoneal inoculation evidenced extraordinary virulence; while in subcutaneous inoculation growth was rather slow. From a mouse just killed they took some material for either direct irradiation *in vitro* or for inoculation of other mice for subsequent irradiation. Their experiments were negative with 3.5 m. ultrashort waves.—*Archives Phys. Therapy*, Apr., 1935.

So-Called Specific Effects of Short Waves in Malignant Tumors (*Strahlentherap.*, 50: 345, June, 1934).—The destructive effect upon tumors by ultrashort waves has repeatedly been explained as a specific biologic effect. The authors' investigations with Jensen sarcoma and in carcinoma of mice, however, prove that an influence on the tumor and its surroundings by specific effects is out of the question. Results take place only if there is an intensity of the field to an extent to destroy every bit of the tissue including that of the tumors by coagulation.

According to the authors no specific biologic effects are in question as active therapeutic agents, nor would a tolerable amount of heat suffice, as it would only produce hyperemia in the tumor or in the surrounding tissue. Short wave treatment of malignant tumors would therefore terminate in a rise of heat in the tumor and in burning. Such a method means a step back as compared with the older, trustworthy methods of roentgen-ray

irradiation, surgical, and electrosurgical treatment. The authors gave no results from their attempts to influence malignant human tumors by short waves.—*Archives Phys. Therapy*, Apr., 1935.

INDUSTRIAL MEDICINE

Restoration of Hand Function After Traumatic Injury.—J. E. Fuld (*Annals of Surgery*, 99: 195-216, January, 1934) notes that crippling deformities of the hand can often be avoided by proper operative and careful postoperative treatment. In cases with loss of soft tissues a pedicle skin graft should be used. In the prevention of contractures primary suture of the cut tendons or nerves is the most important; during healing, the fingers and wrist must be kept in the best position if there is danger of ankylosis. Another important factor in preventing contracture is the correct placing of incisions for drainage in injuries with infection. If contractures occur, various plastic methods of operative repair may be used, according to conditions present, or for Volkmann's contracture the Robert Jones conservative method of constant mild traction. If tendons in contractures are reduced to scar tissue, this should be excised and tendon grafts used; or tendon transplantation may be used. In cases with injuries involving the bones or joints, capsulotomy or arthroplasty is indicated. In injuries involving the nerves, if nerve suture cannot be successfully done, neuroplastic or orthopedic operations may be necessary. The author describes various skin graft operations, his method of tendon suture, and methods of nerve suture. He emphasizes the importance of immediate treatment in injuries to the hand. In hand surgery a tourniquet properly applied is of aid and facilitates accurate identification of structures. Surgery of the hand is "frequently tedious" and requires prolonged after-treatment, but is well repaid by restoration of function to a hand thought to be useless.—*Medical Times*, Apr., 1935.

Carbon Tetrachloride as an Industrial Hazard.—Paul A. Davis, Akron, Ohio, (*Journal A. M. A.*, Sept. 29, 1934), states that Wirtschaffer reported recently a number of cases in which a toxic amblyopia was present and said that the examination of the visual fields may be a valuable procedure for the early detection of carbon tetrachloride intoxications. There have been several cases reported in which carbon tetrachloride produced fatty degeneration of the liver, kidneys, and heart with a subsequent necrosis. The action of carbon tetrachloride is similar to that of chloroform except that it is more intense. This is due to the larger amount of hydrochloric acid liberated as it is broken down in the body. Carbon tetrachloride plus hydrogen plus oxygen plus the influences of the body produce 4 molecules of hydrochloric acid, plus the oxidation products of carbon, carbon monoxide, and intermediate oxidation products, the most poisonous of which is carbonyl chloride or phosgene. Alcohol seems to act as a catalytic agent for carbon tetrachloride and intensifies its action. A person who is under the influence of alcohol when exposed to carbon tetrachloride becomes disoriented and often becomes maniacal. It may be absorbed by the inhalation of its fumes and alimentary system absorption. Also it may be absorbed by the skin and its appendages. Carbon tetrachloride extracts the fats from the skin and produces a dry condition, which favors absorption and also initiates a dry dermatitis, causing the skin of the hands to crack. This

often produces avenues for secondary pyogenic infections. The condition can be corrected if the workmen will use oil of theobroma, petrolatum, or a good grade of ointment of rose water (nonvanishing cream) on the skin after having used carbon tetrachloride. The principal avenue of absorption is the respiratory system. The nausea and vomiting produced by exposure to carbon tetrachloride is due to a central nervous system reaction and not a local gastric one. If the concentration of the carbon tetrachloride is kept at a minimum and the circulation of air at a maximum, few symptoms are noticed. A concentration of 0.01 per cent and lower can be tolerated for long periods of time. However, continued exposure to carbon tetrachloride of low concentrations is not advocated, for slow absorption produces the chronic stage of the poisoning and the retrograde changes in the liver, kidneys, and the hematogenic organs. Substitution products should be used in place of carbon tetrachloride in all processes in which the change is possible. The workers should be rotated so that one person has a chance to aerate completely and eliminate the products of carbon tetrachloride decomposition while the other is working. The condition that usually follows nausea and loss of appetite is acidosis, and this is manifested readily in those who perspire freely.—*Medical Times*, Apr., 1935.

MEDICOLEGAL

Death Following Taking of Pill Containing Strychnine.—A woman about age 60 called a physician in general practice to her home, and upon examination he found her to be complaining of a severe cough and suffering from chronic myocarditis, nephritis, and bronchitis. He gave her various medicines for her condition and saw her for several consecutive days. At the end of that time the doctor found the patient's heart condition was not satisfactory and wrote out a prescription for certain tablets, each to contain one-thirtieth of a grain of strychnine sulphate. Later the same day he was called to the patient's home and found that she was in bed suffering from cramps of the muscles of the backs of the legs. He was informed she had taken one of the tablets which he prescribed. The doctor suspected an overdose of strychnine and upon investigation found that the druggist had made a mistake and instead of filling the prescription properly, he had put one grain of strychnine into each tablet. The doctor gave the patient emetics and she apparently responded to the treatment and seemed to improve. However, she died the second day after taking the medicine.

A necropsy failed to reveal that the overdose of strychnine had hastened the death of the patient, for the findings indicated that the actual cause of death was heart disease.

An action was brought by the patient's administrator against the doctor, to which the druggist was also a party, in which the claim was made that the doctor was negligent in improperly prescribing for his patient and as a result of said claim of negligence, the patient died. The plaintiff's attorney never brought the case on for trial. After some time had elapsed an application was made to the court on behalf of the defendant to dismiss the complaint, and the court ordered the dismissal of the action so far as the doctor was concerned.—*N. Y. State J. M.*, Apr. 1, 1935.

Fee as Expert Witness.—Affirming the New Jersey Supreme Court's judgment in the case of Stanton vs. Rushmore (166 Atl. 707), an action for a fee for

testifying for defendant as a medical expert under an agreement therefor, the New Jersey Court of Errors and Appeals held that an expert witness cannot as such be compelled to give expert testimony in response to subpoena, and, if such expert testimony is called for and given, it is the right of the expert to contract for and receive proper and adequate compensation therefor.

Meeting the contention that the bias that one so called holds would tend to the giving of perjured or exaggerated testimony in favor of his employer, the court said: "It is perhaps true that there is bias on the part of the expert witnesses called by the respective parties to litigation, but it is likewise true that the same bias exists with respect to nonexpert witnesses. Even though it were otherwise and experts were more prone to favor the parties by whom called than is the ordinary witness, it would not justify compelling an expert to make available, for the witness fees of attendance in court, the product of years of industry and experience."

An abstract of the lower court's judgment appeared in *Medicolegal Notes in Medical Record* of Feb. 7, 1934, p. 156.—*Medical Record*, Jan. 2, 1935.

HOSPITAL ACTIVITIES

Aspects of the Ideal Pharmacy for the Average Hospital.—In *Hospital Management* for March and April, 1935, there appear articles entitled "Aspects of the Ideal Pharmacy for the Average Hospital," written by John W. Messick, Jr., pharmacist, West Chester, Pa. His conclusions are as follows:

1. Of the 7000 hospitals in the United States, every one can afford to employ a registered pharmacist, either full or part time.
2. Hospitals should be required by law to have a registered pharmacist in charge of the drug department.
3. The colleges of pharmacy should train their graduates for dispensing in modern hospital pharmacies.
4. The use of a carefully worked out hospital pharmacopoeia tends to increase economy and efficiency.

Hospital Built in Exchange for Free Medical Service.—According to *The New York Times*, Mar. 24, 1935, the Westchester Medical Center, in Westchester County, New York, is an unusual demonstration of what the barter principle can accomplish when employed between skilled mechanics and professional men.

Two years ago the structure was a decaying old mansion. The present medical center is the result of an idea that occurred to Dr. R. Ernest Lopez, who has offices in New York City, and lives near the medical center. Dr. Lopez saw the possibilities in reconstructing this building as a hospital, but he did not have the capital to buy the building and pay for the alterations. On assurances of a score of local mechanics that they would remodel the building in exchange for free medical services for their families, Dr. Lopez bought the property. As many as 50 persons have worked on the building from time to time.

The enterprise is a nonprofit-making medical center, open without fee to all practicing physicians, and all privileges are extended free to the Neighborhood Association of Tuckahoe. It is one of those rare, altruistic ventures born in a time of stress and carried through to completion minus the greed which, in better times, might have characterized the work that went into it.

The Neighborhood Association of Tuckahoe is a charitable association which has sent many patients to receive free treatment at the medical center.

PUBLIC HEALTH

Epidemic of Food Poisoning.—About 750 cases of food poisoning were reported in April as occurring in Westchester County, New York. The cause of the epidemic was discovered by a chemist of the Yonkers City Health Department to be due to *Staphylococcus pyogenes-aureus*. The germ was isolated from a specimen of cream-filled pastry seized in a baker shop in Yonkers soon after the epidemic began. According to the report the infection might have been transmitted to the cream filling from an open wound on a human hand or from a boil, or it might have been communicated from a cracked egg en route from the West.

As a result of this epidemic the New Jersey State Department of Health issued a bulletin to tell the public that all pastry filling containing milk, eggs, or cream, whether cooked or not, should be cooled promptly below 50° F., and kept at such a temperature until delivered to the consumer.

"Clean bakeries, careful methods of manufacturer, and healthy employees are not enough to assure the safety of these products," the bulletin said. "The practice of marketing such articles without refrigeration in restaurants, stores, and trucks should be condemned."

Cream puffs and eclairs have caused 6 similar outbreaks of illness in New Jersey in the last 7 years, according to the bulletin.—*New York Times*, Apr. 28, 1935.

City Held Liable for Typhoid Fever Contracted From Drinking Water.—(Montana Supreme Court; *Safransky vs. City of Helena*, 39 P. [2d] 644; decided Jan. 3, 1935.) An action was brought to recover damages from the City of Helena, the plaintiff alleging that he had contracted typhoid fever as a result of drinking contaminated water furnished by the city. A jury returned a verdict for the plaintiff and the judgment entered thereon was affirmed by the supreme court. The appellate court in its opinion reviewed the evidence in the case and stated that it "was ample to sustain a finding by the jury that defendant had failed to use reasonable care to see that the water which it supplied for human consumption was pure." "This," said the court, "was the duty enjoined upon the city when it undertook to furnish water to its inhabitants."

Farther along in the opinion the court spoke as follows:

It is true that in the operation and management of its sewerage system the city acts in a governmental capacity and is ordinarily not liable for errors of judgment, but it does not follow that it can furnish water to its inhabitants which it knew, or in the exercise of reasonable care should have known, was polluted with sewage escaping from a defective sewer pipe, without assuming liability for damages occasioned thereby. The governmental function in caring for the sewerage system cannot be so completely divorced from the proprietary function of furnishing water to the people of the city as to render the city immune from liability.

The protection of the water from pollution and the correction of a condition brought about by the negligent care of a sewer main became a part of the corporate duty of the city in carrying out its proprietary function of furnishing wholesome water.—*U. S. Public Health Reports*, Apr. 12, 1935.

Morbidity in Pennsylvania, 1934.—According to the number of reported cases of communicable diseases in Pennsylvania in 1934, last year established a better morbidity record generally than 1933.

The most credible achievement was the perfect smallpox record, no cases or deaths being reported in the entire year. There has been only one smallpox death in Pennsylvania since 1925.

New low marks were reached in diphtheria and typhoid fever morbidity. For the first time in the history of registration in this state, the annual number of typhoid fever cases fell below 1000. In 1906 a total of 24,471 cases, or approximately 25 times as many as in 1934, was reported. Diphtheria cases decreased from 4383 in 1932, to 3095 in 1933, and to 2597 in 1934.

Of the other diseases common to childhood, reductions were registered in the morbidity from chickenpox, poliomyelitis, and scarlet fever. With 3 exceptions, the poliomyelitis total in 1934 was lower than in any year since 1910. Of the 131 cases reported, 81, or 62 per cent, were in August, September, and October.

Opposed to these reductions were the increases in the morbidity from German measles, measles, mumps, and whooping cough. The cases from each of these diseases not only outnumbered the 1933 totals but were among the highest on record.

Last year 1 case was reported of Rocky Mountain spotted fever, 4 of rabies, 2 of actinomycosis, 6 of tularemia, and 13 of psittacosis.—*Vital Statistics Bulletin*, Feb., 1935.

Public Health Measures in the Control of Syphilis (*Texas J. Med.*, Fort Worth, Dec., 1934, 30:529).

—The private physician feels no responsibility to society or to the patient for the control of syphilis until the patient comes to him for treatment. There are certain not very common practices of physicians that should be stopped. In most instances they are due to ignorance and call for the education of the physician. Some of these practices are: (1) Cauterization of a chancre, or the application of drugs that will jeopardize a satisfactory dark-field examination; (2) failure to recognize the signs of a chancre; (3) giving antisyphilitic drugs to a patient with a genital sore before a definite diagnosis has been made, thus creating doubt whether to continue thorough treatment, or to stop—in either event the patient is left in doubt as to whether he has syphilis; (4) treating according to the reaction to the Wassermann test without giving any consideration to the fact that continuous treatment over a long period of time, regardless of what periodic blood tests show, is the most important factor in the therapy of syphilis.

If the private physician did no more than treat thoroughly patients in the primary and secondary stages of syphilis, the spread of the disease could probably be checked since this would prevent the majority of new infections. Such control will never be gained unless the dark-field examination is more widely used and the principle of effective medication over a sufficient period of time to arrest the disease is more generally applied.

Physicians cannot be expected to furnish free treatment for all patients with syphilis, and no physician feels a responsibility to society so keenly as to do this. "Unless organized medicine acts in some way to eradicate syphilis, then sooner or later the state will enter in to control the disease, as it should control anything for the common welfare. There is the possibility of this step being a wedge to promote state medicine in general. If physicians are at all interested in the preservation of individualism in the practice of medicine, without which there is no incentive to advance and without which medicine cannot maintain its high standards, it seems that the problem of syphilis control would be a matter of extreme interest to them."

The responsibility of improving public health and controlling communicable diseases rests upon the state. In syphilis control there is the added duty of lowering the cost of maintenance of those made indigent by syphilis. The most effective way of doing this is to reduce the incidence of neurosyphilis and congenital syphilis. The most effective means of preventing neurosyphilis is by the adequate treatment of early syphilis. The number of children born with congenital syphilis can be greatly reduced by the treatment of syphilitic women during each pregnancy.

The state can exercise better control by educating physicians and the laity, by providing better facilities for dark-field examinations and serologic studies, and by providing social service workers.—*U. S. Public Health Service*, Mar., 1935.

Morbidity in Pennsylvania in March, 1935

Locality	Disease				
	Diphtheria	Measles	Scarlet Fever	Typhoid Fever	Whooping Cough
Latrobe	0	7	0	0	0
Lebanon	0	2	1	0	0
Lewistown	0	64	1	0	1
McKees Rocks	1	2	1	0	0
McKeesport	0	107	11	0	6
Mahanoy City	2	0	1	0	0
Meadville	0	2	0	0	0
Monessen	0	17	3	0	13
Mount Carmel	0	0	0	0	0
Munhall	0	38	20	0	0
Nanticoke	0	0	1	0	0
New Castle	1	0	3	0	0
New Kensington	2	68	8	0	2
Norristown	2	0	6	0	10
North Braddock	0	40	3	0	0
Oil City	0	18	0	0	1
Old Forge	0	0	0	0	0
Olyphant	0	8	0	0	0
Philadelphia	15	65	371	2	226
Phoenixville	0	0	1	0	0
Pittsburgh	13	2,835	125	1	69
Pittston	0	8	0	0	0
Plymouth	0	5	2	0	0
Pottstown	0	0	2	0	0
Pottsville	0	0	2	0	0
Reading	0	27	10	0	7
Scranton	0	465	4	0	1
Shamokin	2	1	0	0	1
Sharon	0	37	2	0	0
Shenandoah	1	0	0	0	0
Steelton	0	24	1	0	0
Sunbury	0	90	48	0	7
Swissvale	0	61	11	0	0
Tamaqua	0	1	17	0	0
Taylor	0	8	0	0	0
Turtle Creek	0	90	3	0	0
Uniontown	0	3	4	0	0
Vandergrift	0	0	0	0	0
Warren	0	0	0	0	0
Washington	0	126	4	0	0
Waynesboro	0	2	4	0	0
West Chester	0	0	0	0	0
Wilkes-Barre	1	42	1	0	0
Wilkinsburg	0	84	22	0	4
Williamsport	0	86	5	0	10
York	1	0	0	0	0
Townships					
Allegheny County:					
Harrison	0	26	0	0	0
Mt. Lebanon	0	0	0	0	0
Stowe	0	0	0	0	0
Delaware County:					
Haverford	1	0	3	0	2
Upper Darby	0	0	1	0	2
Luzerne County:					
Hanover	0	16	1	0	0
Plains	1	3	1	0	0
Montgomery County:					
Abington	0	0	1	0	1
Cheltenham	0	0	0	0	5
Lower Merion	1	0	2	0	8
Total Urban ..	56	6,331	840	3	412
Total Rural ..	61	6,778	1,074	5	308
Total State ...	117	13,109	1,914	8	720

TUBERCULOSIS ABSTRACTS

A Review for Physicians

PREPARED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Published through the coöperation of the Pennsylvania Tuberculosis Society and The Medical Society of the State of Pennsylvania

TUBERCULOSIS of the larynx should be regarded not as a clinical entity but as a complication of pulmonary tuberculosis. This is the considered judgment of a laryngologist supported by an experience of 20 years in his field. He suggests the use of the term "laryngopulmonary" tuberculosis as more descriptive and fitting. His article in the April issue of the *American Review of Tuberculosis* is based largely on a statistical study of 500 cases. A brief abstract follows:

LARYNGOPULMONARY TUBERCULOSIS

Tuberculosis of the larynx is usually secondary to pulmonary tuberculosis. Cases with a so-called primary laryngeal lesion when sufficiently and properly investigated almost invariably reveal a primary focus of infection in the lungs. The author's observation has been that laryngeal tuberculosis occurs only in cases of pulmonary tuberculosis which at some time in the course of the disease have a positive sputum. Laryngeal tuberculosis is highly improbable in cases in which the pulmonary lesion has become definitely arrested.

Diagnosis

The diagnosis of laryngeal tuberculosis is made on the basis of the usual objective pathologic findings in the larynx, but only provided a diagnosis of pulmonary tuberculosis has been established. A laryngologist should have a complete report of the chest findings before definitely arriving at a laryngeal diagnosis. And his examination should not end with the larynx. Of course tuberculosis patients may also have non-tuberculous lesions in the larynx.

Prognosis

Both the (a) character and the (b) extent of the pulmonary condition influence the fate of

the laryngeal lesion. (a) If the pulmonary lesion is of a severe and rapidly progressive type the prognosis of the laryngeal lesion is necessarily poor no matter how slight it may be. On the other hand, if the pulmonary lesion is of the productive type even severe laryngeal lesions often heal. (b) The less advanced (pulmonary) cases always present a better prognosis than those in the advanced stages.

Aside from the pulmonary condition the prognosis in the acute type of laryngeal lesion should always be guarded. The acute lesion may become peracute with rapid destruction of the tissues of the larynx and with perichondritis. When complicated by tuberculosis of the pharynx, soft palate, and tonsils, as is often the case, the patient dies within a few weeks from inanition and severe toxemia.

The disease may run a less severe course with a slight tendency to fibrosis. These patients usually suffer from hoarseness or aphonia and irritation in the larynx with a constant desire to expectorate. If dysphagia occurs the prognosis is generally unfavorable. In subacute cases lesions are more amenable to local treatment and when other factors are favorable the prognosis is good. The chronic type is most hopeful; the

voice may remain affected, but the length of the patient's life is probably not curtailed.

Other factors influencing the prognosis are location of the lesion, time of diagnosis, character and promptness of treatment, intercurrent disease, and the general condition of the patient.

Treatment

The treatment of laryngeal tuberculosis is chiefly the treatment of the lung lesion. The conservatism which still governs the treatment of pulmonary tuberculosis applies especially to tuberculosis of the larynx. Surgical procedures practiced on the tuberculous larynx have been almost entirely abandoned. While the scope of thoracic surgery is becoming wider, surgery of the larynx is now being limited to the exceptional cases.

The treatment should be (1) preventive; (2) general, or indirect; and (3) local, or direct.

(1) Every patient with active pulmonary tuberculosis with a positive sputum should be considered a potential case of laryngeal tuberculosis. Therefore, every measure designed to arrest the pulmonary lesion helps to prevent laryngeal tuberculosis. Collapse therapy, the author believes, successfully applied in carefully selected cases, invariably prevents the occurrence of laryngeal tuberculosis. In 5382 cases of pulmonary tuberculosis in which collapse therapy had been employed in various parts of the United States, laryngeal tuberculosis developed in only 12 cases; and in these 12 cases the collapse was inadequate to arrest the disease.

Abnormal conditions in the upper air passages, such as nasal obstructions, inflammatory conditions in the nasopharynx, and diseased tonsils, should be corrected. Excessive use of tobacco and excessive use of the voice will often cause a catarrhal condition, thereby lowering the local resistance of the larynx.

(2) Each case should be individualized and the pulmonary lesion should be given intensive study. Bed-rest is still our mainstay, but we now have in addition collapse therapy. Heretofore, laryngeal tuberculosis was considered a contraindication of collapse therapy. The author feels convinced that the presence of laryngeal tuber-

culosis should never be considered a contraindication of collapse therapy. He believes on the contrary that laryngeal tuberculosis makes the indications for this form of treatment so much more urgent. No effort should be spared to build up the resistance of the patient by the usual methods.

(3) Vocal rest is of primary importance in the local or direct treatment, especially if the laryngeal lesion is of the acute or subacute type. Chronic lesions do not seem to be harmed through the moderate use of the voice.

Cauterization, the method of choice, especially when the lesion is localized, promotes fibrosis and healing and often relieves pain. The cases that are suitable for cauterization are few, but a large proportion of them are cured. When cauterization is insufficient to relieve dysphagia, nerve blocking with alcohol gives relief for several weeks or months.

Heliotherapy has been reported successful, but the evidence at hand is not convincing. Mental suggestion may account for some good results. The method is not without its dangers and, on the whole, unnecessary in a well-ordered sanatorium. Local medication is of slight value. Sprays, consisting of menthol, oil of chaulmoogra, and albolene will often relieve the patient of discomfort in the larynx and may be used freely by the patient himself.

Statistical Summary

"A group of 500 cases of pulmonary tuberculosis was examined 20 years ago. Whereas, the incidence of laryngeal tuberculosis in 1914 was 25.6 per cent, the incidence in 1934 was found to be 14.6 per cent.

"This pronounced reduction in the frequency of the occurrence of laryngeal tuberculosis can readily be explained by the improved methods of diagnosis and the consequent earlier application of treatment; also by the improved methods of treatment. Whereas collapse therapy was not employed in any of these cases in 1914, it was employed in 20 per cent of the cases of the present group."

Laryngopulmonary Tuberculosis, Julius P. Dvoretzky, Am. Rev. of Tuber., April, 1935.

APPLICATION FOR MEMBERSHIP

To the officers and members of the.....County Medical Society,
a component society of The Medical Society of the State of Pennsylvania:

Gentlemen: I hereby make application for membership in your Society, and, if accepted as a member, I agree to support the Constitution and By-Laws of your Society and of The Medical Society of the State of Pennsylvania, and the Principles of Ethics of the American Medical Association.

The accompanying \$..... (which shall be returned if the application is rejected by the Censors or by the Society) will include, when accepted, dues in the County Society and The Medical Society of the State of Pennsylvania.*

1. Place of birth

(If not born in the United States, are you a naturalized citizen of the U. S.?)

2. Year of birth

3. Graduated in medicine from

(Give name of College in full)

Year of graduation

4. State certificate issued by the Bureau of Education and Licensure at Harrisburg (Date)

I have not previously held membership in any component county medical society except in County Society, State of in 19..... I was transferred (resigned in good standing, expelled, or suspended) from the above society in 19.....

5. Name in full

Post office

Street and number

County

6. Recommended by

7. The undersigned Censors of the Society, having fully considered (a) the above application and (b) the information requested from the Biographic Department of the American Medical Association, recommend the ^{acceptance}nonacceptance of the applicant as a member of the County Society.

8. Date 19.....

County society secretaries should record and file above information on blue membership card furnished annually by the State Society. Forward this blank to the State Society Secretary when the applicant becomes a full member of the county society.

* The dues for NEW members elected between July 1 and November 1 shall be one-half the annual dues.
(OVER)

Paid-up membership in the County Medical Society makes you a member of The Medical Society of the State of Pennsylvania, and for the annual County Society membership dues you also receive the following:

The Pennsylvania Medical Journal monthly.

Protection against alleged malpractice suits.

Participation in the Medical Benevolence Fund, which provides "for the relief of pecuniary distress of sick or aged members, or the parents, widows, widowers, or children of deceased members."

Membership in the American Medical Association and eligibility to Fellowship therein. (Make special application for Fellowship.)

Every qualified physician should unite with a County Medical Society:

Because it unites the representative men of the medical profession.

Because of its graduate study advantages.

Because of its altruistic interest in improved public health.

Because of its service in advancing and conserving the community interests of its membership.

Because it affords the only opportunity for eligible physicians to share in the cost of certain intangible benefits, such as

- (a) The development of improved public relations;
- (b) The defense of private forms of medical practice against endeavors at socialization or state medicine, and attempts by cultists to limit our therapeutic procedures.

(OVER)



THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA

OFFICERS' DEPARTMENT

WALTER F. DONALDSON, M.D., *Secretary*, 8104 Jenkins Arcade, Pittsburgh, Pa.

PROPOSED AMENDMENTS

A notice regarding parliamentary requirements for consideration of amendments to the Constitution and By-laws was published in this department in the May JOURNAL.

The following proposed amendments to the By-laws are presented by the Board of Trustees after a year of study of the situation by the District Councilors and representative officers of our component societies.

The proposed changes in Section 1 of Chapter III entitled Councilor Districts involve the constituency of certain councilor districts as set forth in the following italicized words:

Chapter III, Section 1. The State of Pennsylvania shall be divided into 11 Councilor Districts, and each district shall be entitled to one councilor. The Councilor Districts shall be composed of the following counties:

First Councilor District: Philadelphia County.

Second Councilor District: Berks, Bucks, Chester, Delaware, Montgomery, and Schuylkill counties. *Detach Schuylkill; add Lehigh.*

Third Councilor District: Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Pike, and Wayne counties. *Detach Carbon, Lehigh; add Bradford, Susquehanna, Wyoming.*

Fourth Councilor District: Bradford, Columbia, Montour, Northumberland, Susquehanna, Snyder, Sullivan, and Wyoming counties. *Detach Bradford, Susquehanna, Wyoming; add Carbon, Schuylkill.*

Fifth Councilor District: Adams, Cumberland, Dauphin, Franklin, Fulton, Lancaster, Lebanon, and York counties. *Add Perry.*

Sixth Councilor District: Blair, Center, Clearfield, Huntingdon, Juniata, Mifflin, and Perry counties. *Detach Perry; add Bedford.*

Seventh Councilor District: Cameron, Clinton, Elk, Potter, Tioga, Lycoming, and Union counties.

Eighth Councilor District: Crawford, Erie, Forest, Mercer, McKean, and Warren counties.

Ninth Councilor District: Armstrong, Butler, Clarion, Indiana, Jefferson, and Venango counties.

Tenth Councilor District: Allegheny, Beaver, Lawrence, and Westmoreland counties.

Eleventh Councilor District: Bedford, Cambria, Fayette, Greene, Somerset, and Washington counties. *Detach Bedford.*

THE FATE OF THE 1935 CHIROPRACTIC BILL

(A Continued Story)

In the Officers' Department of the April number of the JOURNAL we commented at length upon a public hearing conducted by the Committee on Education of the House of Representatives regarding the disposition of House Bill No. 494, a chiropractic bill of significant type.

We quoted profusely from testimony given before the Committee by Drs. C. L. Palmer and Irvin D. Metzger, embodying questions and answers on the existing provisions for licensing chiropractors, as well as on the character of chiropractic education acceptable to their leaders in Pennsylvania. We reported also that the Committee of the House, at the conclusion of the hearing, voted decisively against the proposed changes in Pennsylvania's existing methods of licensing chiropractors.

Under ordinary parliamentary procedure in the Pennsylvania Legislature this would have decided the future of the bill for this session.

However, by an unusual procedure, the bill unexpectedly appeared on the floor of the House of Representatives in session on May 6. Only by the narrow margin of 98 to 96 votes were the supporters of high educational requirements and licensing standards in the House able to recommit the bill from the Committee on Education to the Committee on Public Health and Sanitation.

After this experience the Public Health Legislative Conference of Pennsylvania, taking no chances on another *coup* by the supporters of the bill for the creation of a separate board of chiropractic examiners, redoubled their efforts. Consequently, when the anticipated motion by a supporter of the bill was made on the floor of the House for the discharge of the committee having it in charge, permitting its return to the floor for consideration, the motion was lost by the decisive vote of 113 to 44.

At this writing the story of the fate of House Bill No. 494 is not complete. This chapter, however, is completed with the publication of a self-explanatory letter mailed to the entire membership of our society, and with a petition to the gods who control these things that the defenders of the public health may soon enjoy a respite from the "nuisance" activities of those who have assumed the responsibility for thus vitiating Pennsylvania's splendid Medical Practice Act, which protects the public against untrained practitioners of the healing art.

THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA
COMMITTEE ON PUBLIC HEALTH LEGISLATION

C. L. PALMER, M.D., *Chairman*,
Diamond Bank Building, Pittsburgh

JOHN J. BRENNAN, M.D. Scranton	JAMES D. STARK, M.D. Erie
ARTHUR P. KEEGAN, M.D. Philadelphia	MOSES BEHREND, M.D. Philadelphia
HENRY W. SALUS, M.D. Johnstown	WALTER F. DONALDSON, M.D. Pittsburgh

May 16, 1935.

FELLOW MEMBER OF THE MEDICAL SOCIETY OF THE
STATE OF PENNSYLVANIA:

Dear Doctor:

Should House Bill No. 494, a chiropractic bill at present in committee, pass the Pennsylvania Legislature, it would make it illegal for any licensed physician not also licensed to practice chiropractic in Pennsylvania to make "examination of the human spine by observation, palpation, or roentgen-ray," or to practice "the adjustment of any or all misalignments of vertebrae or adjacent bones or tissues through the use of the hands."

We are confronted for the first time with an endeavor on the part of a cult group to curtail the means by which licensed physicians in Pennsylvania may diagnose or treat human ailments.

The responsible officers and committeemen of your state and county medical societies are continuing their efforts to defeat this legislation, but its ultimate fate will depend largely upon the personal missionary work done by our entire membership and their friends throughout the state with their Representatives in the

House while they are at home over the present week-end, May 18-19-20.

Please make this your personal responsibility.

Sincerely yours,

COMMITTEE ON PUBLIC HEALTH LEGISLATION,
THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA,
C. L. PALMER, *Chairman*.

MEMBERSHIP

Our paid-up membership on May 29 of this year was 7767, which total was not reached last year until July 26; 8060 members paid their dues for 1934, the largest number in the history of our society and exactly twice our membership in 1904, 30 years previously.

In the letter on the subject recently addressed to county medical society secretaries, which appears below, will be found a number of reasons why an especial effort should be made at this time to bring into county society membership all eligible physicians. The newest of these reasons may be expressed in the following words:

Every qualified physician should unite with a county medical society—

Because it affords the only opportunity for eligible physicians to share in the cost of certain intangible benefits, such as

(a) The development of improved public relations;

(b) The defense of private forms of medical practice against endeavors at socialization, or state medicine, and legislative attempts by cultists to limit our therapeutic procedures (see third paragraph of letter below).

Other reasons not mentioned in the letter published herewith may be found on the reverse side of the membership application blank on page 740 of this issue of the JOURNAL.

We take this opportunity to recommend that each member of our society detach this form and mail it at once, accompanied by a personal letter of invitation, to an eligible nonmember physician in his county, or if none, that he file it carefully for future use.

No doubt, of necessity, the money spent for county medical society dues may in some instances mean the withholding of money from another important use. Nevertheless, with encroaching economic changes and threatening social legislation, organization is the only means that physicians may employ in defense of the principles which insure continuation of tried and true forms of sickness service, and the essential unity and solidarity demand the enrollment of all qualified physicians.

In the 5 years prior to 1935 The Medical Society of the State of Pennsylvania expended in the development of sickness prevention and

higher medical educational standards a total of \$41,000 (see Secretary's report, September PENNSYLVANIA MEDICAL JOURNAL, each year) through its Committee on Public Relations including the latter's subsidiary Commission on Cancer, also its Committees on Public Health Legislation and Medical Economics, as well as for officers' travel expenses. It is only fair to note that many of these items of educational expense and effort have been matched proportionately by some of our county medical societies.

It is on account of these rapidly growing expenditures necessitated by encroaching economic changes and threatened social legislation that we now so frankly refer to expenditures by county medical society members for the procuring of "intangible benefits" which are consciously or unconsciously shared by all practicing physicians in the state.

Consider in addition the money and effort that have been expended through educational endeavors by the organized medical profession in Pennsylvania in 1935 in connection with proposals for compulsory health insurance and other invalidating legislation.

Bear in mind the continuous need for such endeavors in the future and we believe you will agree that no self-respecting practicing physician can longer justify his aloofness from the medical society in his county.

In further justification can we do better than quote at this point from the presidential address of the 1935 president of the Wayne County (Mich.) Medical Society: "Collectively we can accomplish much where individually we may fail, and we must be prepared to fight fire with fire and not allow ourselves to be governed by petty adverse legislation brought into being by fads, fanatics, and foundations."

May 13, 1935.

To the Secretaries of the Component County Societies:

Why should not *all* eligible doctors of medicine in Pennsylvania share with the county medical society members in the expense and the work necessary to develop and retain high standards of medical training and merited freedom in medical practice?

Our discharge of county medical society membership obligations brings to all nonmember physicians certain tangible benefits without cost to the latter—for instance:

- (a) The development of improved public relations.
- (b) The defense of private forms of medical practice.
- (c) A hitherto thoughtlessly accepted protection against legislative attempts at limitation of our therapeutic practices; e. g.,

House Bill No. 494, a chiropractic bill, as at present in committee, should it pass the Pennsylvania Legislature, would make it *illegal for any licensed physician not also licensed to practice chiropractic in Pennsylvania to examine "the human spine by observation, palpation, or roentgen ray," or to practice "the adjustment of any or all*

misalignments of vertebrae or adjacent bones or tissues through the use of the hands."

Our paid-up State Society membership on May 10 of this year was 7729, which total was not reached until July 26 of last year. Eight thousand sixty members paid their dues for 1934, the largest number in the history of our society and exactly twice our membership in 1904, 30 years previously.

This remarkable demonstration of loyalty on the part of our entire membership to county and state medical societies during the calendar year in which emergency medical relief service resulted in the distribution of more than a million dollars to the physicians of Pennsylvania for services rendered to those on unemployment relief, it is believed, signifies confidence in the present and hope in the future leadership of the organized profession throughout Pennsylvania.

SHARING THE COST

Why should not *all* eligible doctors of medicine in your county share with the county medical society members in the expense and the work necessary to develop and protect the purposes of your county medical society?

By way of assistance in the inauguration and furthering of a successful membership campaign by your county society we are forwarding application blanks and a list of the names and last known addresses of the candidates for licensure in Pennsylvania in 1933-4-5 to date, who have not yet affiliated themselves with your society.

We will also assist, when requested, the secretary of any component county society who has not been successful in meeting the requirements of Section 9 of Chapter 8 of the By-laws of our State Society in "keeping a roster of nonaffiliated registered physicians of the county."

The Model By-laws for Component Societies, approved by our 1932 House of Delegates, in Section 1, Article 6, provides that "the dues for *New* members elected between July 1 and November 1 shall be one-half the annual dues." Section 2 of the Constitution of The Medical Society of the State of Pennsylvania provides that "the assessment of *New* members elected and reported between July 1 and November 1 shall be one-half the annual assessment."

It is more than encouraging to be able to report at this time that about 95 per cent of the approximately 240 new half-year members added to the Philadelphia County Medical Society in the last 6 months of 1934 have paid in full their membership dues for the year 1935. This proportion maintained throughout the state would bring our total State Society membership to 8800. Will a goal of 8500 members prove to be unattainable?

The usual phases of leadership, such as scientific program, health legislation, public relations, medical economics, cancer prevention, appendicitis and maternal mortality reduction, and emergency medical relief, are at the present time in charge of competent committees.

This current opportunity (membership increase) for a practical demonstration in constructive leadership now confronts the officers of your county society and your State Society.

A CHALLENGE TO ELIGIBLE NON-MEMBERS

Read again the third paragraph of this letter (H. B. No. 494). Ponder also on the threat of socialization of medical practice; then challenge any eligible nonmember physician in your county to explain how he retains his self-respect while permitting his neighboring practitioners to underwrite most of the benefits of practice which he enjoys.

The trustee and councilor of your councilor district is in full sympathy with this membership campaign and will join in assisting in any way you may request.

Sincerely yours,
WALTER F. DONALDSON, *Secretary*.

STATE REGULATIONS AFFECTING EMPLOYMENT OF WOMEN

Until very recently probably not many physicians employing women as nurses, secretaries, stenographers, technicians, *etc.*, thought that in such employment they were subject to the rules and interpretations, by the Department of Labor and Industry of the Commonwealth of Pennsylvania, of the law of the state regulating the employment of women. The subject, however, was brought to the attention of our Board of Trustees at its meeting on May 14 by Trustee and Councilor George C. Yeager of Philadelphia, who reported that a Philadelphia physician had recently been fined for not observing said regulations.

Upon investigation it has been learned that the Department of Labor and Industry in the Capitol Building, Harrisburg, interprets the law to the effect that a "Digest of the Woman's Law and Department Regulations shall be kept posted in a conspicuous place in the room where *any woman* is employed."

Inasmuch as it is apparently possible that an inspection of physicians' offices by representatives of the Department of Labor and Industry, followed by prosecution of any violation of the law, may occur at unexpected times, it is suggested that physicians write to the Department of Labor and Industry, indicating the number of women (one or more) employed in their offices or laboratories and at the same time requesting instructions which may, if followed, prevent future annoyance or unpleasant publicity.

GROUP HOSPITAL INSURANCE

There are rumors in 2 sections of our state of recent discussion of the inauguration of group hospitalization insurance plans. The proposal has received new impetus through its recent adoption by a large group of hospitals in New York City. We believe, therefore, that our officers and members should again familiarize themselves with this important subject (see July, August, and September, 1934, issues of the PENNSYLVANIA MEDICAL JOURNAL and page 726 of this issue).

Group hospitalization insurance, it is said, is being successfully administered in the District of Columbia under a plan fostered by the Medical

Society of the District, which plan *does not* furnish laboratory, radiologic, anesthesia, or physiotherapy services to subscribers. On the contrary, the Mutual Hospitalization Plan of Elizabeth, N. J., does include these services which would at once *dispose by contract* of the professional services of a number of members of the average county medical society. The latter plan, however, includes the following clause, which we have not seen in any other plan:

"The holder of this certificate must be responsible for the payment of the doctor's fee for medical and surgical care given or ordered by her/his personal doctor during her/his stay in the hospital, the *continuance* of this *membership* being *contingent upon* satisfactory arrangements for the *payment* of said *doctor's fee* being made by the member with her/his doctor."

Shelter, food, and ordinary nursing service in a hospital do not *alone* prove sufficiently attractive, and the experience of the managers of a number of plans in different cities to date has not been such as to lead the management of the hospitals concerned to believe that premiums collected will ever provide the stabilized income hoped for by its more optimistic originators.

Our limited knowledge of the subject, based as it is on a consistent endeavor to keep in touch with the situation, leads us to believe that popularity accruing to group hospitalization insurance will eventually depend almost *entirely* upon—

(a) The professional services that may be included.

(b) The employer coercion that may be enlisted under the plan.

The Judicial Council of the American Medical Association "has advised against the adoption of such plans by community hospitals because it is believed that they are not economically sound, in that they may be unfavorably affected by conditions entirely beyond control under which contracts cannot be fulfilled," while the Bureau of Medical Economics of the Association in its 1935 report states that "it is possible that some hospitals that should be closed may, by the assistance of a group hospitalization scheme, continue to serve the public badly."

THE PACKAGE LIBRARY

Authors of surgical, medical, or special articles published in state or national journals within the past 10 years are requested to submit duplicate reprints of such articles to the Librarian, The Medical Society of the State of Pennsylvania, 230 State Street, Harrisburg.

By this coöperation we hope to build up an adequate package library service as quickly as possible.

LIBRARY COMMITTEE.

CONTRIBUTIONS TO MEDICAL BENEVOLENCE FUND

The Committee on Medical Benevolence gratefully acknowledge the following contributions to the Benevolence Fund:

Woman's Auxiliary to Montgomery County Medical Society	\$100.00
Woman's Auxiliary to Mercer County Medical Society	25.00

Total contributions since 1934 report \$1,045.00

CHANGES IN MEMBERSHIP OF COUNTY SOCIETIES

The following changes have been reported to May 13:

ALLEGHENY: *New Members*—Samuel R. Phillips, 247 Charles St.; Charles M. Boucek, 516 Federal St., N. S.; Alfred J. Haines, 322 Brownsville Road; Sydney M. Saul, 1710 Beaver Ave., N. S.; Charles F. Kutscher, Medical Arts Bldg.; H. S. Toukatlian, 922 Chartiers Ave., Pittsburgh; Felix A. Jaworski, 519 Locust St., McKeesport. *Deaths*—C. E. Kylander, Pittsburgh (Univ. Pgh., '31), Apr. 24, aged 34; Eugene O. Pearson, Pittsburgh (Jeff. Med. Coll., '00), Apr. 22, aged 60; Marcus Spiro, Pittsburgh (Univ. Pgh., '03), Apr. 21, aged 70.

ARMSTRONG: *Death*—Joseph D. Orr, Leechburg (Jeff. Med. Coll., '85), May 1, aged 78.

BEAVER: *New Member*—George Wm. Miller, 800 Maplewood Ave., Ambridge.

BUCKS: *Transfer*—Walter M. Smith, Lehighton, from Carbon County Society; John T. Shaffer, Sellersville, from Philadelphia County Society.

CAMBRIA: *New Member*—Theodore Wallak, 419 Main St., Johnstown. *Transfer*—John C. Gourley, Windber, from Indiana County Society.

CARBON: *Resignation*—Leo C. Gallagher, Lansford.

CHESTER: *New Member*—H. Bailey Chalfont, Kennet Square. *Reinstated Member*—William D. Schrack, Phoenixville.

CLINTON: *New Member*—Herbert S. Raines, Woolworth Bldg., Lock Haven.

DAUPHIN: *New Members*—Malachi W. Sloan, Jr., Berrysburg; Monroe D. Lehr, 642 S. Second St., Lykens; Anthony J. Mogavero, Polyclinic Hospital, Harrisburg. *Death*—Harry B. Walter, Harrisburg (Jeff. Med. Coll., '81), Apr. 25, aged 81.

DELAWARE: *Transfer*—Francis A. Stiles, Upper Darby, from Philadelphia County Medical Society.

INDIANA: *New Members*—Marshall Graham, McIntyre; T. Miles Hadden, Iselin.

LACKAWANNA: *New Member*—Harry G. Coulter, 108 Stone Ave., Clarks Summit. *Reinstated Member*—Friedman H. Cathrall, 829 Linden Ave., Scranton. *Transfer*—William Christian, Scranton, from Luzerne County Society.

LEHIGH: *New Members*—Lewis J. Leiby, Slatington; Byron D. Wilkins, R. D. 1, Northampton; Lloyd A. Stahl, 726 Hanover Ave., Takeo Yamashito, 48 S. Tenth St., Allentown.

LYCOMING: *New Member*—Sarah Bishop, Laurelton.

MERCER: *New Member*—John G. Wassil, 108 E. State St., Sharon.

MONTGOMERY: *New Members*—Willis G. Frick, Norristown; Herbert W. Barron, Collegeville; Robert E. Brant, Spring City (Chester Co.).

PHILADELPHIA: *New Members*—Edward C. Brown, 733 Corinthian Ave.; Wm. A. Lell, 1642 Harrison St., Philadelphia; Adele C. Kempfer, State Hospital, Norristown (Montg. Co.); Karl F. Mayer, 149 N. Easton Road, Glenside; Emilie E. Mundy, 4119 Walnut St., Jack W. P. Love, Phila. Gen. Hos., 34th & Pine Sts.,

Abraham B. Mapow, 533 Pine St., Wm. Allen Jeffers, 133 S. 36th St., Joseph W. Massey, 3037 W. Berks St., Henry D. Lafferty, 250 S. 18th St., Alfonso L. Pierro, 1317 S. Sixth St., Nathan H. Einhorn, 1922 Spruce St., Philadelphia. *Reinstated Member*—Daniel M. Hoyt, Vet. Bureau, Comb. Fac., St. Petersburg, Florida. *Death*—Maurice A. Bunce, Philadelphia (Univ. Pa., '93), Mar. 19, aged 62. *Removal*—Lewis J. Houser from Philadelphia to R. D. 1, Langhorne (Bucks Co.).

SCHUYLKILL: *Transfer*—Ella R. Summa, Shenandoah, from Luzerne County Society.

TIOGA: *New Member*—R. D. Leonard, Tioga.

WESTMORELAND: *Reinstated Member*—Louis Naples, Greensburg.

YORK: *New Members*—Eli Eichelberger, 301 S. George St., George E. Lentz, 211 S. George St., York; Thomas F. Vestal, 60 N. Main St., Red Lion; Nevin H. Seitz, 215 Carlisle St., Hanover.

PAYMENT OF PER-CAPITA ASSESSMENT

The following payment of per-capita assessment has been received since Apr. 11. Figures in first column indicate county society numbers; second column, State Society numbers:

April 12	Luzerne	308	7316	\$7.50
	Lackawanna	199, 249-250	7317-7319	22.50
13	Montgomery	177	7320	7.50
	Beaver	84-85	7321-7322	15.00
15	Westmoreland*	163	8059	7.50
	Westmoreland	101-142	7323-7364	315.00
	Lehigh	108-145	7365-7402	285.00
	Delaware	144	7403	7.50
	Northampton	112-126	7404-7418	112.50
	Cambria	171-172	7419-7420	15.00
16	Lycoming	117	7421	7.50
	Berks	157	7422	7.50
17	Bucks	45-50	7423-7428	45.00
	Monroe	25	7429	7.50
18	Schuylkill	138-141	7430-7433	30.00
	Indiana	37-38	7434-7435	15.00
	Mercer	72	7436	7.50
19	Delaware	145	7437	7.50
20	Lancaster	158-168	7438-7448	82.50
	Lehigh	146	7449	7.50
22	Tioga	26	7450	7.50
	Northampton	127-128	7451-7452	15.00
23	Delaware	146	7453	7.50
	Mifflin	27	7454	7.50
	Washington	119-120	7455-7456	15.00
	Indiana	39-41	7457-7459	22.50
	Chester	79-95	7460-7476	127.50
	Venango	51	7477	7.50
24	Lackawanna	251	7478	7.50
25	Elk	21	7479	7.50
	Luzerne	309-310	7480-7481	15.00
26	Erie	157	7482	7.50
30	Chester	96	7483	7.50
May 1	Philadelphia	1970-2037	7484-7551	510.00
2	Allegheny	1118-1271	7552-7705	1,155.00
	Armstrong	46	7706	7.50
3	Lackawanna*	241	8060	7.50
	Lackawanna	252	7707	7.50
6	Mercer	73	7708	7.50
	Schuylkill	142-143	7709-7710	15.00
	Montgomery	178-181	7711-7714	30.00
7	York	134-139	7715-7720	45.00
8	Armstrong	47	7721	7.50
9	Lawrence	71	7722	7.50
	Mercer	71	7723	7.50
10	Dauphin	205-207	7724-7726	22.50
	Fayette	108	7727	7.50
	Beaver	86-87	7728-7729	15.00
13	Clearfield	60-61	7730-7731	15.00
14	Franklin	61	7732	7.50
15	Luzerne	311-313	7733-7735	22.50

* Indicates 1934 dues.

COMMITTEE ON SCIENTIFIC WORK

STANLEY P. REIMANN, M.D., *Chairman*,
Philadelphia

PROGRAM OF THE SECTION ON EYE, EAR, NOSE, AND THROAT DISEASES

The officers of the Eye, Ear, Nose, and Throat Section are happy to have secured as guest speakers for the Harrisburg meeting of the State Medical Society, Dr. Arthur W. Proetz of St. Louis, Mo., and Dr. James W. White of New York City.

Dr. Proetz is one of the best known of the younger American otolaryngologists, and a very able and convincing speaker. He will discuss "The Treatment of Sinus Infection," a subject for which he is particularly qualified. His discussion will undoubtedly be most practical and amply supported by lantern pictures, either still or motion.

Dr. White's forte is "muscles" and he will speak on "The Screen Test and Its Modification." For years Dr. White was associated with the late Alexander Duane, an outstanding authority on the extra-ocular muscles. His subject will cover enough ground and be so well presented as to insure widespread interest.

The program in general will consist of a symposium on the sinuses, a series of papers relating to the eye, and several papers on ear, nose, and throat subjects. We trust that it will appeal to the members of the Section and induce a large attendance.

County Society Reports

BERKS

Apr. 9, 1935

The meeting was held at Medical Hall, Reading, President William L. Krick presiding; 65 were present. Harry Z. Hibshman, Philadelphia, professor of proctology, Temple University Medical School, gave an address on "Proctology for the General Practitioner," illustrated with graphs.

Dr. Hibshman said in part: Proctology hitherto has been a much neglected specialty. A survey made last year revealed the fact that only 12 medical colleges throughout the country, 3 of them located in Philadelphia, included this subject in their curriculum.

Among the variations from the normal are anomalies of development, and surgical and mechanical diseases.

In making a rectal examination, attention should be paid to the perineum. Inspection must include a careful search for eruptive nodules, venereal warts, and outlets of fistulous tracts. Swelling with redness indicates an ischio-rectal abscess. Following inspection, a digital examination, using the index finger, should be made. Palpation often reveals sore spots or rough projections. Twenty-five to 30 per cent of the cases of rectal car-

cinoma can be felt with the finger. An unusual finding warrants consultation with a proctologist.

The average patient who develops cancer of the rectum consults the physician 2 to 24 months after the onset of symptoms. This delay is due partly to the use of home and drug store remedies. After all else fails, they hesitatingly consult a doctor, and here another delay often occurs in making a rectal examination. During the interval, carcinoma has had time to become well established. Treatment of rectal carcinoma is entirely surgical.

Pruritus ani is very difficult to treat. It is often caused by infection around the anus which usually originates somewhere higher in the digestive tract. Scratching occurs reflexly, simultaneously with an itching sensation. This habit may prove very harmful.

Following trauma to the anal canal, infection travels along the anal crypts and by way of the lymphatics. An unchecked infection will progress to abscess formation and its name will depend on its location.

Accouchement may cause tears in the perineum with subsequent rectal trouble and perhaps procidentia. Occasionally a hernia may occur.

In suppurative appendicitis pus does not often break through into the rectum, because the lower portion is below the peritoneal reflection?

Internal hemorrhoids may be entirely on the inside or may protrude outside, but are always covered with mucous membrane. Cross sections show varicosities. External and internal hemorrhoids may be treated by operation. Internal hemorrhoids may be injected if diagnosed in the earlier stages.

A fistula is formed from spontaneous rupture of an ischio-rectal abscess into the rectum. The abscess should be drained until healing takes place. A chronic ischio-rectal abscess should be incised and drained through the perineum.

Rectal ulcers are usually rounded oval in shape, and cause intermittent pain from one-half to 30 minutes following defecation. For this reason, patients have no desire to have a bowel movement, and therefore remain constipated. Under nitrous oxide anesthesia and with division of the anus, the entire ulcer can be excised.

Ulcerative colitis may be due to amebae, and extend over a number of years. It is well to study fresh stools or fresh scrapings. Hot irrigations of silver-nucleonate may be used as a medical treatment. Emetin, a form of ipecac, is a specific for amebiasis.

Carcinoma of the bowel is usually primary, but may be a metastasis from a gastric malignancy. Papillary adenomata become malignant in time, and should be excised.

Condylomata acuminata should be excised and the area kept clean and dried. A blood Wassermann is usually positive in these cases.

A pilonidal sinus is an inclusion cyst containing hair and sometimes cartilage, and located over the sacro-coccygeal region.

General treatment for diseases of the rectum includes the use of suppositories, which should be employed only as lubricants. Adrenalin, belladonna, and opiates if indicated, should be given hypodermically. Salves may be used for skin lesions. Pile pipes are of no use, inasmuch as the patient is liable to perforate the rectal wall and produce peritonitis.

J. P. Nesselrod, of Philadelphia, presented a graphic description of the lymphatic circulation of the rectum, perineum, and adjacent structures, depicting the course of infection in various rectal diseases. Carefully pre-

served specimens injected with metallic mercury and prussian blue were used as a demonstration.

In discussion, Gilbert I. Winston said it cannot be overemphasized that in most lesions of the rectum, especially fissures, the original cause lies higher up.

Frank G. Runyeon stressed that when the chief complaint of a patient concerns the rectum, a careful rectal examination should be made. Rectal symptoms deserve as much consideration as symptoms pointing to sore eyes or sore throat. There is oftentimes a tendency on the part of the physician to neglect an examination of the rectal case. He prefers to treat the patient with suppositories. It is much easier. To the public, rectal trouble indicate piles, though the patient may be suffering with malignancy. The least that can be done is to make a digital rectal examination, and a proctoscopic examination, if necessary. A diagnosis can be made in most cases, by doing this. It is only by careful examination that the mortality rate in rectal cancer can be lowered.

PEARL E. HACKMAN, *Reporter*.

BRADFORD

Mar. 26, 1935

The meeting was held at the Ward House, Towanda. J. Clifton Lynch, of Athens, read a paper on "Common Intestinal Parasites." Only those parasites found in this section of the country were included; consequently, the paper dealt with *Ascaris lumbricoides*, *Oxyuris vermicularis*, *Taenia solium*, *Taenia saginata*, *Dibothrycephalus latus*, and *Trichinella spiralis*.

The essayist stated that fewer children are brought to the doctor with the chief complaint of worms than formerly. One reason for this is the fact that frequently physicians have discouraged the belief of the lay public in this entity. A brief résumé of the chief characteristics of each type was considered; variations of symptomatology and points which should serve as suspicion arousers were stressed. Among the more important was mentioned tympanites, colicky abdominal pain, perversion of appetite, mental retardation, nausea, vomiting, constipation, and diarrhea. It was especially noted that nervousness and infestation by round-worms was closely related, while itching about the perineum was outstanding in *Oxyuris vermicularis* infestation.

The use of aspidium was recommended in the treatment of cestode infestation, santonin in nematode and local cleanliness with dilute (1:10,000) bichloride of mercury, enemata along with the use of oleum chenopodii.

The discussion was opened by Albert Knight, Waverly, New York. He advised the use of saline purges rather than oleum ricini to avoid toxic reactions when aspidium was used. The use of hexylresorcinol in sugar-coated pellets was recommended in treating tapeworm invasions. One or 2 pellets repeated 3 or 4 times in one day are given depending on the age of the patient. The day before administering the drug a suitable dose of cascara sagrada is given. A liquid diet is followed and the next morning the pellets are administered, followed by a saline or oil purge. The only danger is in producing burns of the oral mucous membrane in children who chew the pellets before swallowing them. They are never serious, however, and heal rapidly without treatment. In a certain number of individuals santonin and calomel will produce reactions due to idiosyncrasy. This is usually expressed by nausea and "yellow" vision. Betanaphthol and carbon tetrachloride should be used with caution because of the danger of liver damage.

Tetrachlorethylene has been found an excellent substitute for the latter.

Quassia can be substituted for mercury bichloride enemata with equally good effect in treating *Oxyuris vermicularis* infestation. The use of preventive measures such as a well-fitting diaper or sleeping suit so altered as to make scratching of the anus impossible was offered as a means of preventing continuation of *Oxyuris vermicularis* infestation. Arthur J. Bird, of New Albany, stressed the fact that too often the profession takes the subject of intestinal parasites too lightly. The difficulties of making the diagnosis and the frequency with which intestinal parasites simulate typhoid fever, pneumonia, and appendicitis were discussed. He related the case of a patient he had been called to see in whom the diagnosis of typhoid fever had been made. The child was running a temperature of 106° F., with marked abdominal distention and diarrhea. In view of the absence of a fecal impaction catharsis was tried without relief. A soapsuds enema containing turpentine caused the passage of a dead round worm (*Ascaris lumbricoides*) with prompt amelioration of symptoms, the temperature falling to normal in 3 hours. George E. Richardson, Towanda, stressed the point that dead *Ascaris* worms retained in the human can give rise to high temperatures and severe toxic symptoms, and that these worms are always found in numbers. He recommended the local application of 5 or 10 per cent ammoniated mercury ointment in the treatment of pinworms, at the same time applying it to the nail beds, because reinfection is the greatest factor in continuing the infestation. Briefly, the similarity between *dibothrycephalus latus* infestation and pernicious anemia was mentioned. Stanley D. Conklin, Sayre, drew attention to the fact that lead poisoning can simulate the symptoms of worms and is a fact that should always be borne in mind by men practicing in rural sections since lead pipe is widely used as water conduits. This same fact is to be remembered also because of perversion of appetite among children with worms and their tendency to gnaw at painted surfaces.

WILFRED D. LANGLEY, *Reporter*.

CAMBRIA

Mar. 14, 1935

Prior to the meeting an informal dinner was held in honor of John A. Kolmer, of Philadelphia, at the Batchelor's Club, Johnstown. Dr. Kolmer, professor of research in medicine, Temple University Medical School, delivered an address on "Acute Anterior Poliomyelitis."

There is no community in the United States that is free of the virus. This disease spreads terror in the hearts of parents, both because of its 11 to 45 per cent mortality, and the high incidence of paralysis, which may be 25 to 45 per cent. It is thought that the majority of adults have been infected with the virus during childhood and escape the paralytic form of the infection. Nevertheless, there are enough crippled children to make prevention of this disease a matter of practical importance.

Only man and monkeys are susceptible to the virus. Acute anterior poliomyelitis can be produced in the monkey by dropping the virus into the nose, or injecting it intracerebrally. The disease is more severe in monkeys than in man. One attack of poliomyelitis usually leaves lasting immunity. This fact suggests hopeful vaccination against the disease.

Attempts at vaccination date back to 1910, and although the idea was good and it worked with some

monkeys, it was feared to attempt to vaccinate humans with the living virus because some of the experimental animals so treated developed the disease before immunity developed. Vaccines of killed virus met with like success. The problem, then, became one of finding some way to alternate the living virus; this was done after much experimentation, and a vaccine is now produced by taking a 4 per cent suspension of monkey spinal cord in 1 per cent sodium ricinoleate and allowing 10 days to 3 weeks for the ricinoleate to attenuate (not kill) the virus. This attenuated virus given to a series of 18 monkeys at weekly intervals seemed to create immunity; at least, they all withstood an injection of virus, which promptly (in 6 to 9 days) destroyed 4 control monkeys. Dr. Kolmer was the first human to receive 3 subcutaneous injections of the virus at weekly intervals. It was proven that the antiviral antibody in his blood had been increased. This is tested by mixing a known amount of spinal cord virus with a known amount of blood serum, allowing it to stand 2 hours, and then therapeutically testing it in the brain of a monkey. Since then, Dr. Kolmer's laboratory assistant, his own sons, and gradually many more persons have been vaccinated, always with an increase in antibody and without tragedy. During this evolution there were many trying hours of mental stress and worry. The dosage is from .25 c.c. in small children to .50 c.c. in the older ones at each dose, given subcutaneously at weekly intervals for 3 doses. This course seems to produce antiviral antibody in the blood stream of these individuals in proportions similar to the amount found in those who have had the disease, so that the immunity produced is thought to be a durable one. Monkeys, immunized 3 years ago, are still immune, and are being tested every 4 months. If the immunity will only carry the individuals past childhood, it will be more beneficial. Many hundreds have received it without ill effects all over the world. Temple University Hospital has a clinic for this immunization, treating now from 50 to 60 a week. The only hesitancy on the part of the medical profession is that the vaccine is a living virus, but it seems necessary in order to give immunity.

Dr. Brodie in New York uses a formalin killed form of the virus as vaccine and although 10 to 20 times as large dosage is used, the duration of immunity is only about 5 months. It is an opinion that the virus is modified by passage through the monkey much as smallpox virus is modified by passage through the calf. The injection of the virus subcutaneously reduces the chances of producing the disease, because the natural route of infection is through the nose and pharynx. Internal dosage is a third factor of safety.

The vaccine produces an increase in antiviral antibody within 96 hours after injection, which is of great importance from the epidemic standpoint. The antibody created by the vaccine will neutralize the virus produced by poliomyelitis of recent epidemics. Eradication of the disease is hoped for. Vaccine has been offered free to doctors who wish to use it.

C. REGINALD DAVIS, *Reporter*.

CHESTER

Apr. 16, 1935

The meeting was held at the Chester County Hospital. Luncheon was served. The Executive Committee approved the recommendation that literature on the subject of workmen's compensation and socialization of medicine be secured in order that it may be distributed to service

clubs and interested members of the laity. At the suggestion of the Public Health Commission there was a call for volunteers to aid in the immunizing program this spring. The program for this work was adopted at the last meeting and called for coöperative effort between the Parent-Teacher Association and the county society. A form letter regarding diphtheria immunization was presented by Dr. Klevan, and it was agreed that a copy of this letter should be printed in the county newspapers. A petition requesting support of the Workmen's Compensation Bill and opposition to the Epstein Bill was presented by the Legislative Committee and signed by every member of the society present. The By-Laws Committee recommended certain revisions of the present By-Laws, and the report of this committee was adopted in full. Noteworthy changes in the new By-Laws are the creation of an Executive Committee, a Publication Committee, a new office of President-Elect, and the changing of the annual dues to \$15.00 to meet the increase in the cost of conducting the affairs of the society.

The program consisted of a symposium on obstetrics presented by 5 members of the Society. Henry Barker spoke on "Pregnancy, Pre- and Postnatal Care." He stressed the necessity of periodic examinations of the expectant mother, including blood pressure reading, urinalysis, observation of weight, *etc.* He also stressed the importance of a well-balanced diet, moderate exercise, fresh air, definite rest, *etc.*

Frank Wells spoke on "Toxemias of Pregnancy." He referred to the nausea and vomiting in the early months, followed by the preëclamptic toxemia of the later months, with its terminal form of eclampsia, and stressed the need for frequent urinalyses and careful prenatal observation to avoid the frequency of this complication of pregnancy. The use of carbohydrates in the treatment of toxemia was mentioned, also the intravenous use of magnesium sulphate. Operative treatment has been gaining ground in this country because termination of pregnancy is almost invariably followed by a rapid drop in blood pressure, increase of urine output, and general improvement.

Herbert Goebert reviewed the subject of "Sepsis and Abortion." He discussed the many causes of abortion including therapeutic as well as criminal. Good treatment is based on the correction of the causative factor of the sepsis. This should be accomplished in the safest and quickest manner possible. The uterus is evacuated unless there are inflammatory complications in its vicinity.

Thomas Parke reviewed the subject of "Delivery, Normal and Operative." He outlined the history of the obstetric forceps, and particularly stressed the need for more patience and less haste in entering upon operative procedures. The most common operative procedure is the application of the low forceps and conditions necessary to perform this operation include dilatation of the os, empty bladder, and knowledge of the position of the fetal head in the pelvis. The operation of version and cesarean section were detailed.

U. Grant Gifford concluded the meeting with a summary of "The Heart of Pregnancy." He reiterated the well-known fact that pregnancy adds to the heart's burden, which increases as pregnancy advances. A diagnosis of valvular heart disease should never be based upon the existence of a systolic murmur alone. It must be supported by other evidence, such as cardiac enlargement, history of rheumatism, scarlet fever, tonsillitis, *etc.* Mitral stenosis associated with fibrillation constitutes a very unfavorable condition. Fibrillation occur-

ring late in pregnancy is perhaps one condition of the heart which justifies cesarean section.

JOSEPH SCATTERGOOD, JR., *Reporter.*

CRAWFORD

Apr. 3, 1935

The meeting was held in Townville, at the Methodist dining room; the central location of Townville makes it a very desirable meeting place.

A program was presented by Hilding A. Bengs and Robert H. Israel, of the Warren State Hospital. Dr. Bengs, dealt with "Mental Diseases with an Organic Background." He pointed out that about one-third of first admissions have a specific cause for the insanity. Old age is often attended by definite pathologic changes in the brain. Arteriosclerosis, especially cases with a high diastolic pressure, may produce alternating periods of confusion and clarity. Syphilis accounts for many cases, usually about 20 years after the initial lesion. Early recognition is very important. Syphilis may also produce mental disease other than general paresis through its effect on the blood vessels. Alcoholism, especially at the end of a debauch, may send the victim to the hospital for the insane, and about 1 per cent of those with delirium tremens die. Cases due to infections are usually temporary. Cardiorenal disease accounts for some cases, also brain tumors, multiple sclerosis, and encephalitis. Head injury is not as common a cause of mental illness as the layman is likely to believe.

Dr. Israel spoke on "Functional Mental Disease." A particularly valuable feature of his address was some simple points on recognizing mental disease. Not all physicians can be experts in psychiatry, but all can be on the alert to detect mental symptoms and to decide whether such symptoms are serious enough to warrant hospitalization. These are listed as follows:

1. Is the patient oriented as to time, place, seasons, persons?
2. Can he concentrate? This is a point of especial value in manic cases.
3. Has he memory changes? Memory for recent events is impaired in senile and arteriosclerosis cases, while in hysteria there is often spotty or "island" memory.
4. Has the patient hallucinations?
5. Has he disturbances in judgment, especially ideas of persecution, infidelity, *etc.*?
6. Does he suffer from marked emotional changes, ex-hilaration, depression, apathy?

Applying these to various types, Dr. Israel pointed out that in manic depressive insanity there are emotional changes and changes in activity; in dementia praecox, the patient, usually in the teen years, basically seclusive, becomes more so, indifferent, lacking in interest, suffering from hallucinosis, and may become very dangerous when the "voices" become imperative, especially if the voice is believed to be divine; in paranoid cases, the patient may appear quite normal and talk intelligently unless and until the investigator gets on the track of the delusions, hence such cases are very hard to detect. Often these patients move about from place to place to escape persecutions and eventually may decide that since the law will not protect them they will take matters into their own hands. The last type mentioned was the psycho-neurotic, usually an exaggeration of a normal personal-ity.

Dinner was served. The time of holding the regular meetings was changed to the third Wednesday.

CLIFFORD W. SKINNER, *Reporter.*

DELAWARE (EASTERN BRANCH)

Apr. 23, 1935

James W. McConnell, Philadelphia, read a paper on "Some Common Neuroses and Their Management."

A neurosis is a disturbance of any part of the nervous system which cannot be traced to structural change anywhere in the body.

Hysteria.—To define hysteria properly would require a large vocabulary of terms; however of late years Babenski, Freud, Spiller, and others have established a definite pattern for hysteria and have accepted the proven theory that hysteria is a psychoneurosis brought about by suggestion and cured by suggestion.

Neurasthenia.—The literal definition of neurasthenia is nervous weakness. Medically, neurasthenia is a group or groups of symptoms resulting from exhaustion of nerve centers. The syndrome has been observed in all ages from very young children to those of advanced years.

Traumatic Neuroses.—Traumatic neuroses are those in which the history of accident preliminary to the development of symptoms is obtained. In these cases the mental shock plays an important rôle and thus are obtained the elements of mental disorders and of the neuroses. The syndrome includes the gamut of mental depressions, anxiety states, memory defects, headache, vertigo, and tics of many kinds. Neurasthenic hysteric stigmata may be imposed as insomnia, muscular weakness, exaggeration of tendon reflexes, and cardiac, vascular, and vasomotor symptoms, the latter evidenced by flushing of the face, throat, and thorax. Dermographism is also seen. Muscular weakness may be presented as hemiplegia, paraplegia, or monoplegia, usually of the flaccid type and often absolute, although the part may be used by the patient when off guard. The eyes may show concentric contraction of the fields of vision. The sensory disturbances are interference with gait. The objective cutaneous sensory alterations are observed from the moment of accident and not infrequently are intensified as the nervous state continues.

Occupational Neuroses.—Under this general heading may be mentioned writer's cramp, telegrapher's cramp, gold beater's arm, *etc.* It is a question whether or not these conditions should be regarded as of the neuroses. Omitting details, the occupational neuroses affect muscles which are constantly performing the same movements, when these movements are inaugurated by definite mental effort to accomplish a specific purpose. Most, if not all, of the cases are easily diagnosed if one delves into the history and the sequence of the development of the symptoms. The prognosis is unfavorable and the best treatment is to advise a different type of work.

Psychasthenia.—Patients with fixed or imperative ideas, anxiety states, phobias, tics, and certain local muscular spasms are regarded as belonging in the class of psychasthenias. The patients so afflicted are aware of their morbid state yet are unable to control it. The treatment is that of the other neuroses with the modifications necessitated by the mental peculiarities.

Diagnosis. The diagnosis of any or all of the neuroses under consideration is made with precisely the same technic by which any other condition is diagnosed, the same thoroughness in eliciting historic facts; the influences exerted by family, social, economic, accidental or emotional factors; and the consideration of those physical and mental features that seem to need more than passing attention. All these phases of study are absolutely necessary.

Remember that not all cases are psychogenic, not all

organic. Failure on the part of the examiner to understand or analyze a phenomenon properly does not relegate it to the psychogenic realm.

The symptomatology of the different neuroses is not always clear-cut and definite. So-called pure hysteria is rare. It is more likely associated with or modified by either a tendency toward or the actual existence of a neurasthenic state. Conversely, neurasthenia is frequently attenuated by hysteria. Traumatic neuroses show much hysteric taint.

Therapeutic Management.—The first step is that of diagnosis. Trace the history as far back as possible to determine familial, developmental, or so-called hereditary traits. Not always is this a practical thing to do for not infrequently the element of fear or secretiveness leads the patient to conceal any feature regarded as not in the patient's favor or as not relevant. Once the diagnosis is made the physician must become the master, dictator, or tyrant. He prescribes treatment. He must show interest and establish confidence without loss of prestige; he must dominate; he must not ignore or ridicule; he must convince himself and the patient of the curability of the condition. An improper word or a thoughtless expression may be disastrous. Every physician is not suited to every patient; but every doctor can recognize his pending or actual failure, admit it, and bow himself out for a better fitted guide for the patient.

Hydrotherapy, climatotherapy, mechanotherapy, electrotherapy, and others are of use in neuroses. Psychotherapy is most needed. Rest away from friends, family, and accustomed things is an important adjunct. Psychoanalysis is a relatively recent acquisition. With some cases it is of help; but its duration, cost, and discovery of right operator are matters to be carefully considered. The real general practitioner has been performing in that capacity all of his life.

Therapeutic management of any or all neuroses begins in childhood; indeed it should commence, in those elected to be parents, long before either marriage or a child is considered.

RALPH DEORSAY, *Reporter.*

ERIE

Apr. 26, 1935

The meeting was held in the Hamot Hospital Auditorium, Arthur G. Davis, presiding; more than 100 were present. Frank Lahey, of Boston, discussed "Newer Developments in Hyperthyroidism and Hyperparathyroidism."

Twelve thousand thyroidectomies have been performed at the Lahey Clinic with a mortality rate of .73 per cent, including more than 4000 cases each of nontoxic and of exophthalmic goiter. In the first group the mortality rate was .22 per cent, in the latter .94 per cent. Thirteen hundred cases of toxic adenoma were operated upon with a 2 per cent mortality; 246 patients with malignant disease yielded a .4 per cent operative death rate. The mortality rate of 108 patients with thyroiditis was .9 per cent.

The impedance angle test was briefly described as a record of the comparison of the capacity of the human body to the resistance of the human body, as measured in microfarads and ohms. Increased tissue permeability (porosity) is the rule in hyperthyroidism with the reverse the case in myxedema. This represents a test which is free from emotional errors, such as are found in the calculation of the basal metabolic rate. It does not promise too much, however, in the way of accurate

diagnosis in border-line cases, and this is the paramount need at the present time.

The iodine tolerance test, which Dr. Lahey and his associates have worked out and used during the past year, appears to be quite accurate in the separation of the toxic from the nontoxic thyroid. In exophthalmic goiter there is little iodine in the thyroid gland; with the administration of this drug the gland accepts it and then involutes. The exophthalmic goiter case will vary from .1 mg. of iodine to as much as 5 mg. after 10 weeks' use of Lugol's solution; the exceedingly active hyperplastic cells become less active and colloid fills in—in the later stages of involution the colloid material fills most of the gland. There comes a time when the patient becomes iodine-fast and no further improvement can be accomplished.

Normal blood iodine varies from 1 to 11 micrograms (.001—.011 mg.) per 100 c.c. The test is extremely sensitive and the presence of an unstoppered bottle of iodine in the laboratory will vary the determinations. The blood iodine level does not vary particularly in the nontoxic colloid case; in exophthalmic goiter the average level is 37 micrograms.

The iodine tolerance test is made after the patient has had 12 hours of bed rest and breakfast of one slice of toast and a cup of coffee; following a blood iodine determination, the patient is given 10 minims of Lugol's solution; the blood iodine is then determined every half hour for 4 hours and then every hour for 8 hours. The normal response is an immediate elevation which tapers off to normal in from 4 to 6 hours.

In hyperthyroidism the blood iodine does not increase, because the thyroid gland itself absorbs all the available iodine. This is also true in those puzzling cases of adenoma with normal basal metabolism which will be improved by surgical removal. The value of this test is that all emotional factors can be disregarded; it requires painstaking laboratory technic.

Marked exophthalmos may lead to blindness due to lid pressure. An extremely intractable type is occasionally seen in postoperative myxedema. Sewing the denuded lids together and a decompression of the upper wall of the orbit may be effective if done promptly.

The combination of exophthalmic goiter and diabetes is an extremely serious one. Dr. Lahey has now had about 100 such cases; the diabetic factor is made much worse, and prompt surgery is indicated.

Total thyroidectomy has not proven particularly efficacious in the treatment of cardiac decompensation; the subtotal operation will be productive of much better results providing there is some degree of cardiac reserve. The difficulty in the total operation is that the resulting myxedema heart is hard to keep balanced. In angina pectoris the myxedema heart following total thyroidectomy will prove quite beneficial; it is likely that part of the value in this operation comes from an interruption of the sympathetic system as well.

The blood cholesterol is a good gauge of the degree of myxedema. It will be below 130 mg. in hyperthyroidism and more than twice that amount in hypothyroidism.

The thyroid crisis is an exacerbation of the increased combustion process of toxic goiter. Its warning symptoms are an increasing pulse rate, vomiting, diarrhea, irrationality, and delirium. It may be brought on by a superimposed infection. It must be treated promptly by giving the patient's system something more to burn than its own liver glycogen. An intravenous drip of 40 minims of salt solution in 5 per cent glucose should be given every minute continuously until improvement is

definite; 50 minims of iodine should be added to every 1000 c.c. After a few weeks of a high carbohydrate diet a 2-stage thyroidectomy should be done. Delay may merely mean another crisis.

The blood pressure will not be influenced by subtotal thyroidectomy; there may be a slight diminution in the pulse pressure.

More thyroid tissue should be left in when operating on children; the 2-stage operation will be used more frequently.

Hyperparathyroidism may be due either to a hyperplasia of one of the glands or to adenoma formation. The symptoms are a progressive loss in height from decalcification, spontaneous fractures, unexplained nerve root pain, and kidney stones. The blood calcium is high and phosphorus low. Roentgen-ray changes in the bones are definite.

The parathyroids are not constant in their location but may be found in many locations around the thyroid or even within the gland itself, especially in its upper pole adjacent to the larynx.

Removal of the involved parathyroid gland produces a decalcification in the bones and relief of the symptoms; deformities already present cannot be remedied.

Dr. Lahey has never seen a case of associated hyperthyroidism and hyperparathyroidism.

In discussion Benjamin Goldman, Erie, called attention to the fact that Dr. Lahey's series of patients were 3 to 1 exophthalmic goiter; in Erie the series is reversed. Eighty per cent of the goiters are nodular, the remainder, the exophthalmic type. The study of the parathyroid case gives an opportunity for coöperation between the urologist, the orthopedist, and the thyroid surgeon.

May 2, 1935

The meeting was held at Hamot Auditorium, Erie, Arthur G. Davis, presiding. The guest speaker was Harvey B. Stone, of Baltimore, associate professor of surgery at Johns Hopkins University Medical School; his subject was "Problems in the Diagnosis and Treatment of Gallbladder Disease."

Dr. Stone emphasized the value of a careful history of the patient's disorder; the physical examination of a patient with gallbladder disease is frequently, between attacks, quite negative and the symptoms must be carefully evaluated. There is usually a history of indigestion, belching, and upper right abdominal tenderness; there will have been one or more attacks of sharp pain. Although the old adage "Fair, fat and forty" is still reliable as far as age incidence is concerned, the disease has been progressing for many years and it is only in middle life that the process becomes overwhelming. Dr. Stone detailed 2 patients, who, in their teens, had proven gallbladder disease.

Roentgen examination, when it demonstrates opaque or nonopaque stone, is conclusive; when no gallbladder shadow is obtained or when there is faulty emptying of a dye-filled gallbladder after a fat meal it is presumptive evidence of cholecystic disease. A gallbladder dye test which is reported as normal should be construed as inconclusive, and should not be relied upon too much.

An acute gallbladder attack is manifested by upper right abdominal pain frequently radiating into the back or chest, tenderness over the gallbladder area, localized rigidity, an elevated temperature with leukocytosis, and vomiting; the patient is definitely ill. The earlier orthodox treatment has been to allow the patient to "cool off" before surgery is done. There is a growing feeling among some surgeons, including Dr. Stone, that this

type of patient should be operated upon as soon as he can be adequately prepared for a major surgical operation; there should be a few hours of rest, a liberal amount of glucose and salt solution intravenously, and morphine. The objection to unnecessary delay in operation is based on the fact that further infection with either empyema or rupture and abscess may occur; gangrene of the gallbladder is also a possibility.

The patient who is seen in the interval between acute attacks should have fully 2 days of preparation including bed rest, adequate carbohydrate diet, fluids, and proper elimination. The results in a series of cases so handled will be definitely better, both as to immediate and remote effects, than in cases in which the patients are operated upon without such precautions.

There doubtless are cases of mild degree which do not require surgery. It is probably quite reasonable to allow the patient to have more than one attack of gall stone pain before surgery is employed; if digestive disturbances continue after the first attack, the disease process is probably irreversible and should be eradicated. The nonsurgical patients will be treated best by regulation of low-fat diet, by proper elimination, and by good hygiene.

Where there is unquestioned disease in the abdomen but where it is impossible to separate the duodenum, the gallbladder, and the appendix, it would seem reasonable to do an exploratory laparotomy.

Several questions as to operative procedure were raised by Dr. Stone. He does not feel justified in exploring the common duct routinely, reserving that procedure for those cases in which there has been jaundice, pain referred to both shoulders, or intermittent fever—the symptoms of common duct obstruction—or where the duct is found at operation to be distended. The fact that stricture may follow such probing must be recognized. An occasional stone in the common duct will be missed and a repeat operation made necessary; in this type of case, however, it may be that a new stone has formed either in the liver radicles or in the common duct.

It is best to remove the appendix as a prophylactic measure in all cases in which the primary operative procedure has been done in a relatively clean field, hence the upper right rectus incision is preferred in doing gallbladder surgery.

The best end results are obtained in those cases which are the most acute and in which operation is done promptly. The greatest amount of morbidity is obtained where the diagnosis is insecure; in other words where the gallbladder is probably not the cause of the trouble. Unfortunate sequelae which must be kept in mind are: A recurrence from common duct stone, one overlooked at the first operation, or one newly formed; stricture, as a result of common duct exploration; and, leaving too long a cystic duct with recurrence in this pouch.

Carcinoma of the biliary passages is only rarely cured by operation and then only when found incidental to the operation.

In discussion, Maxwell Lick, Erie, stressed that the clinical syndrome when typical is extremely sharp and clear-cut; it is as accurate as a roentgen-ray study. Much of the grief in gallbladder surgery is due to neglected cases with the resultant damage to the liver and pancreas and infection of the adjacent lymph nodes. Salicylates have been employed with some benefit in nonoperative cases. The gallbladder that appears grossly normal is not removed but some other source of the trouble is looked for in the abdomen. The common duct is not opened unless the symptoms or the findings at

operation have presented a clear indication. Dr. Lick asked the reason for prolonged bile leakage, and whether biliary symptoms are common in angina pectoris.

Ford Eastman, Erie, cited 2 cases: The presence of gallstone in one patient, age 16, and one, age 17. The common duct is not routinely probed, being opened only upon definite indication. Gallbladder disease is responsible for damage to the myocardium as well as the pancreas and liver.

Harry C. Winslow, Meadville, considers that careful heart studies have proven of value in many cases where gallbladder surgery was contemplated, and routine electrocardiograms are now done in such patients more than age 50. In the thin patient local anesthesia has been quite sufficient, and is useful, therefore, in the cardiac case. Dr. Winslow has had 3 cases of massive pulmonary collapse postoperatively. The last one was not fatal because of prompt bronchoscopic drainage.

B. Swayne Putts, Erie, stated that too frequently the clinician considers the roentgen-ray examination of any part of the body as infallible. This should not be so, as the roentgen diagnosis represents an interpretation of films and fluoroscopy. A diagnosis of gallstones should always be correct; if gallstones are not seen, there is a definite element of error in the diagnosis either of a pathologic or normal gallbladder. This is exemplified by the fact that nonopaque calculi are seen not infrequently in gallbladders which respond normally to dye.

Elmer G. Weibel, Erie, asked for Dr. Stone's experience in biliary drainage by duodenal tube. The usual case has an infected liver as well as an infected gallbladder. Prolonged postoperative morbidity is lessened by Lyon's biliary drainage.

Benjamin Goldman, Erie, said that 20 per cent of a series of 600 gallbladder operations have been found to have continued morbidity. Is it possible that the diagnosis was wrong in so large a percentage? Has there been any series recording the mortality and morbidity, comparing the immediate operation with the delayed operation, in acute gallbladder disease?

Lemuel A. Lasher, Erie, asked if it was possible that a calculus dropping down from the liver could be responsible for a recurrent common duct attack, following operation?

Dr. Stone, in closing, said that when the roentgen-ray study is negative for gallbladder disease one should be guided entirely by the clinical picture. The positive gallbladder study on the other hand is extremely valuable. Stones do occur in the liver ducts and move down; exploration of the common duct does not insure against this type of obstruction. There is, in many cases, a correlation between diabetes and gallbladder disease. It is not justifiable to explore the nonclinical gallbladder as a possible source of focal infection. Richard Miller reported a simultaneous series of cases of acute gallbladder disease at the Massachusetts General Hospital which were treated by immediate and delayed operation, alternately. The immediate group had a lower hospital mortality and morbidity. Dr. Stone has not been impressed with medical drainage as an adjuvant to surgery. Magnesium sulphate affects the gallbladder, and if the gallbladder is out there is no value in its use. Postoperative bile leakage after gallbladder removal may be due to a strangulation of the cystic duct from the tie being placed too tightly. A drain is always left in for at least 6 days in order that a well-established drainage tract may be obtained. Avertin has been the basic anesthesia with a small amount of gas when necessary. The symptoms may be identical in gallbladder disease and in cardiac disease; diagnosis should be certain before surgery is done. RALPH BACON, *Reporter*.

LACKAWANNA

Apr. 16, 1935

Frank H. Krusen, director of the department of physical medicine, Temple University Medical School, Philadelphia, spoke on "Physical Therapeutics." He emphasized the general acceptance of physical therapy to-day, as an adjunct to modern medical and surgical treatment growing out of the experiences of the World War, as compared with the distrust and stigmata attached to it 20 years ago. A motion picture was shown, demonstrating the various methods of application of light, heat, electricity, and massage, as well as the operation of a physical therapy clinic as a hospital department.

Apr. 23, 1935

"The Venous Channels of the Base of the Skull and Their Relation to Otolaryngology" was discussed by Oscar V. Batson, professor of anatomy, Graduate School of Medicine, University of Pennsylvania. The anatomic landmarks were demonstrated by means of models and corrosion specimens.

Apr. 30, 1935

Herbert L. Northrup, professor of surgery, Hahnemann Medical College, Philadelphia, discussed a number of topics, including stab wounds of the heart, malignant anthrax of the face, and the cancer problem. Several operative procedures were demonstrated by means of motion pictures.

May 4, 1935

Annual observance of National Child Health Day by the Lackawanna County National Society and its Woman's Auxiliary was continued by a public evening meeting held in the auditorium of the Technical High School. The guest speaker was Charles A. Zeller, psychiatrist and assistant superintendent at Farview State Hospital, Waymart, Pennsylvania, who took as his subject "Childhood Behavior Problems." A musical program followed.

This meeting also inaugurated the local toxoid campaign, which is now taking place throughout the county in a concerted effort to increase the percentage of immunes among susceptible children. For the benefit of relief cases, toxoid stations are being opened in fire stations throughout the city on stated days, under the direction of volunteers from the local county medical society. A recent survey of preschool children showed an overwhelming percentage of nonimmunes in this group, foretelling a return of epidemic diphtheria if immediate steps are not taken to remedy the situation.

FREDERIC B. DAVIES, *Reporter*.

LAWRENCE

Jan. 3, 1935

The meeting was held in the Castleton Hotel, New Castle, with 45 present; vice-president John B. Barrett presided.

R. Ross Snowden, of Pittsburgh, discussed "Cancer of the Stomach." He said in part:

Of all chronic ambulatory cases of stomach trouble, 1½ per cent are carcinoma. Early diagnosis is important and difficult.

The typical features are illustrated by a patient past middle life with no previous stomach trouble beginning to complain of indigestion. There is usually flatulence and a vague distress, a change or failure of appetite, and a revulsion to meat. The symptoms continue and

are progressive whereas pylorospasm and ulcer symptoms are intermittent.

Physical signs show cachexia, characterized by loss of weight and subcutaneous fat, inelasticity and yellowish color of skin. There is secondary anemia sometimes closely resembling pernicious anemia. Laboratory tests show absence of hydrochloric acid and, if there is retention, lactic acid. Blood may be found, but this is also true of other conditions. Roentgen-ray tests are helpful but show only deformity, perhaps due to other causes. In the final analysis exploratory laparotomy should always be done if there is suspicion of cancer.

A. W. Shewman presented a patient wearing contact lenses, this being the first demonstration of these lenses to the society.

The milk commission reported excellent operation of our certified dairy.

David L. Perry reported that plans are being made for a postgraduate course.

The annual election resulted as follows: President, Walter L. Campbell; first vice-president, John P. Prioretti; second vice-president, David L. Perry; secretary, William A. Womer; treasurer, William C. Burchfield; censors, Loyal W. Wilson, Alon W. Shewman, and William L. Steen.

Announcement was made that Clarence A. Tinsman had been transferred to the McKean County Medical Society.

WILLIAM A. WOMER, *Reporter*.

LEHIGH

Apr. 6, 1935

The meeting was held at the Allentown Hospital; Robert L. Schaeffer presided. Pascal F. Lucchesi, superintendent, Philadelphia Hospital for Contagious Diseases, was the guest speaker. His subject was "Immunization Against Scarlet Fever with Demonstration of the Dick Test." A summary follows:

Scarlet fever has been definitely on the decline during the past few years in Philadelphia, but with reference to its severity one could not judge by the death rate. The severity of the disease is not to be judged by the mortality rate but by the seriousness of its complications. This year both the complications and the disease itself have been of a more serious nature than in the past.

Scarlet fever is caused definitely by the *Streptococcus hemolyticus scarlatina*. The theory of the filterable virus being responsible has long been disputed.

Streptococci enter the body chiefly through the upper respiratory tract. However, this is not so in cases of surgical scarlet fever, where the entrance may be through the wound. Streptococci lodge in the mucous membrane of the throat and multiply, so that there is produced an inflammatory area. Here the battle is waged between the body tissues and the organisms. As a result of the inflammation or swelling there is produced pain or sore throat. The organisms then secrete a toxin, which is absorbed and produces the systemic symptoms such as fever, headache, nausea, vomiting, and rash.

It was discovered 29 years ago in Russia that a vaccine containing both the dead organisms and the toxin could be used to immunize against scarlet fever. Later Kolmer tried this type of vaccine at the Philadelphia Hospital for Contagious Diseases. In 1925 the Dicks announced their treatment for the prevention of scarlet fever; they inject small doses of the scarlet toxin weekly. The dose is increased weekly and is given as follows:

First dose— 500 S. T. D. (Skin test dose.)

Second dose— 2,000 S. T. D.

Third dose— 8,000 S. T. D.

Fourth dose—25,000 S. T. D.

Fifth dose—80,000 S. T. D.

Two weeks after the last dose the patient is retested, and if found positive the last dose may be repeated. By this method they are able to immunize about 90 per cent of the susceptibles, which immunity lasts for about 3 years in 90 per cent of them. Dr. Lucchesi has been able to immunize in several institutions in Philadelphia as high as 98 per cent of those injected.

The Dicks recommend certain precautions. It must be remembered that the needles and syringes should be sterilized in distilled water because ordinary tap water contains a certain amount of alkali which will neutralize the toxin. The needles should fit very snugly to the syringe to avoid the possibility of leakage. The water remaining in the needles should be expelled by squirting through the needle about 1/10 c.c. of toxin. Injections must be made intradermally. Tests should be read within 18 or 24 hours in a good light. Any area of redness measuring 10 x 10 mm. is considered a positive test. The Dicks use both arms instead of one arm for the Dick test. It should be remembered that scarlet fever toxin is an emetic, and parents should be instructed not to overfeed their children before or after the injections. If the Dick test measures more than 20 mm. and if the child is of age 1 or less, the first dose should be reduced to 250 S. T. D. If a severe reaction is feared, 1/10 to 2/10 of a c.c. (1-1000) of adrenalin may be mixed with the toxin.

Reactions may be expected in about 10 per cent of the patients. All of the patients do not react to the same dose. Some may have the reaction in the first, second, or third dose; others may have it in the last two. Reactions may be mild such as slight redness and swelling of the arm, or may produce fever, vomiting, nausea, or even a rash. In some patients there are focal reactions. Reactions usually occur within 6 hours after the injection and usually disappear within 48 hours. No serious reactions have been encountered by the Philadelphia Department of Public Health in this work so far. They have done over 10,000 Dick tests and immunized about 3000 children.

Other methods of immunization against scarlet fever have been tried such as the giving of the scarlet fever toxin by mouth, by rectum, or by inunction. These have not produced the same high percentage of immunity as has the hypodermic method.

VAUGHAN SPRENKEL, *Reporter*.

LUZERNE (HAZLETON BRANCH)

Apr. 10, 1935

The meeting was held in the Elks' Home, Hazleton. Vincent T. Curtin, pediatrician to St. Joseph's, Scranton State, and the Moses Taylor Hospital, Scranton, delivered an address on "Feeding and Nutrition in Infancy and Childhood," saying in part:

The modern school of thought began about 15 years ago, when the infant feeding problem was chiefly one of persuading a mother to use fresh milk modifications rather than condensed milk. The food of the infant, at least of the young infant, must be chosen from a natural or an artificial source. Breast milk has been the food of choice since the days of antiquity. We cannot provide a formula which will replace mothers' milk, although

in a questionnaire sent out some 2 years ago by Boyd, of Iowa City, a large number of pediatricians admitted their ability to produce even better results with artificial feedings. Others imply that more disturbances of digestion are encountered in the group receiving human milk. These disturbances may occur more frequently but the general nutritional make-up of the average breast baby will always excel that of the average bottle-fed baby, even though the latter be under the supervision of an expert in infant feeding.

Having stressed the importance of breast feeding, it is but fair to consider whether there be contraindications. There is but one absolute contraindication, open tuberculosis in the mother. All other reasons for weaning must always depend on individual factors. The decision to wean is a grave one, and whenever the issue is not clearly defined, the physician should decide against weaning. When artificial feeding must be used after mothers' breasts "run dry," we must seek simplicity in formula making. The following general rules should be observed: Milk should be boiled, because of the greater digestibility of the fine soft curd. No discussion is necessary as to the value of the different modifiers, as these depend upon the individual choice of the prescribing physician. The choice should be determined by the financial state of the patient. How much in total quantity should be given a baby? There can be no harm in allowing a baby to take as much of a well-balanced formula at each feeding as it will take willingly. Rarely, if ever, do we give too much in quantity; we may give too rich a quality. How often should we feed? Again an individual question, and never should a rule be fixed, the frequency depending upon the size and development of the baby. How much diluent? In the beginning about equal parts of milk and diluent—later, one-third diluent and two-thirds milk. What type of diluent? Plain boiled water is most commonly used with occasional indications for cereal waters.

The balancing of the formula for the average baby is a simple task requiring no mathematical talent: Milk allowance $1\frac{1}{2}$ to 2 ounces per pound of baby weight—the 7-pound baby 11 ounces—the sugar allowance 10 per cent of the milk or one ounce, the water requirement equal to the milk, approximately 10 ounces. This formula gives 7 bottles of 3 ounces, 6 bottles of $3\frac{1}{2}$ ounces, or 4 bottles of 5 ounces. The older baby of 12 pounds will require milk 18 ounces, water 12 ounces, sugar $1\frac{1}{2}$ ounces, the whole being divided into 5 bottles of 6 ounces. So simple is this formula that spinning an indicator is difficult compared to it.

Problems such as vomiting and diarrhea are treated by reducing the fat content of the milk by skimming. The problem of the infant who will not take sufficient quantity of the formula is solved by concentration of the mixture, either by the addition of acid or by rendering the curd more digestible by means of a softening process. The method used will depend upon the physician's allegiance to the school of the curd or to the college of the buffer. When lactic acid is used, we use 2 drops to the ounce (lemon juice, one c.c. to the ounce). The need for vitamins is well known and the well-established use of cod liver oil and orange juice is heartily recommended.

Addition of other foods to the diet requires little discussion. Cereal may be added as early as the third month, certainly by the fourth month. Vegetable juices may also be added at this time, and strained vegetables, vegetable soup, baked potato, *etc.*, at 5 months. Egg should be added early, but in small amounts at first to determine whether the patient shows an allergic reac-

tion. Custards may then be given, as well as jello, junkets, and other desserts. Stewed fruit is given at night. Bacon and scraped beef should be offered at 9 or 10 months.

In later life common sense in allowing the child to eat foods of nutritive value is of greatest importance. The chief problem in older children is that of anorexia, or refusal to eat. This is best overcome by allowing self-selection of the diet by the child, and by having the child eat with other children or other people. Again, common sense, and above all tact, must play their part in building up an appeal to the young appetite. The sauce to meat, after all, is ceremony; the conditions under which we eat are quite as important as what we eat.

In discussion, J. Simpson Crater stated that fat is more instrumental in causing constipation than diarrhea. Giving skimmed milk to constipated babies cures them easily. He asked about the value of brewer's yeast in anorexia. He also recommended the use of Fear's treatment for children with pneumonia; hot skimmed milk with high percentage of glucose added. John J. Corrigan said there is no hard and fast rule for infant feeding. Individual factors must be considered. He advised adherence to the following 4 essentials: Give 45 to 50 calories per pound of baby weight; use $1\frac{1}{2}$ ounces of milk per pound to supply the required protein and minerals; the milk should be free from bacteria; and the formula should be such as to meet the digestive capacity of the baby. He prefers evaporated milk, and believes that pediatricians are swinging to the principle of acidulated evaporated milk, given with karo or dextrimaltose.

Manfred H. Kudlich stated that simplicity and cleanliness are the best rules to follow in the prevention and treatment of gastro-enteritis, especially during the hot summer months. Our relative freedom from anxiety for such cases at present is due to the purity of the milk and the improved hygiene of the home. Lawrence F. Corrigan remarked that it is good to stress simplicity. Too much has been said for the indicators and calculators. Diarrhea in infants under age 6 months is due to fat or carbohydrate, and in children over that age is most likely due to putrefactive organisms. He asked whether the speaker considers that stomatitis comes from or is related to vitamin C deficiency. He also stated that the failure of cod liver oil in preventing rickets in some cases may be due to faulty manufacture of the product. Otto C. Reiche described a case of interstitial keratitis which was cured only when vitamin B was added to the diet. He asked whether Dr. Curtin knew of research along this line. Joseph Alexis asked how long milk should be boiled in preparing the formula. Shem A. Everett described a child with poor nutrition and multiple melanomata who showed improvement of both conditions after the use of vitamins and sunshine. He asked the speaker's views on this subject.

In conclusion, Dr. Curtin agreed that all formulae should be checked to determine that caloric needs are met. Milk should be boiled 3 minutes, or brought to a boil 3 times, removing it from the stove after each time. Evaporated milk is recommended, especially in families which are poor, but insist that it be *not* condensed milk. The chief disadvantage is that the cream in evaporated milk cannot be cut down as it can be in cow's milk, by skimming. In answer to the question of brewer's yeast, he did not know whether all cases of anorexia improved with it or not. Certainly vitamin B does not do all the things which various advertisements would have

us believe. He could not answer the inquiry regarding melanomata and their relation to vitamin therapy.

JOHN M. DYSON, *Reporter*.

LUZERNE

Apr. 17, 1935

The meeting was held in the County Society Building; President Joseph Dougherty presided.

Samuel B. Hadden, of Philadelphia, read a paper on "The Nonspecific Treatment of Neurosyphilis." A summary follows:

Fever therapy in neurosyphilis has become synonymous with nonspecific treatment of neurosyphilis and other diseases. At the neuropsychiatric clinic of the Philadelphia General Hospital, malarial inoculation has become the method of choice; typhoid-paratyphoid vaccine intravenously is the second; and diathermy is condemned wholeheartedly. By the latter, to give a patient sufficient fever it is necessary to wrap him in 7 layers each of rubber and woolen blankets alternating, and keep the current running an hour; this will produce 105° F. but the same is accomplished in 1½ hours by the blankets without the current, and by hot water bottles and the blankets in one-half hour. When the temperature reaches 105° F., if the blankets are not soon removed, the temperature will go on up rapidly. This method demands preparations to treat the patient for thermic fever.

It is not increased temperature alone that produces the benefits. During fever the general rate of circulation is increased, and so the rate through the brain. In addition, when malarial inoculation and typhoid vaccine are used, the reticulo-endothelial system is stimulated and nonspecific protective antibodies are produced.

The one nonspecific measure of therapy that has impressed itself on the staff of the Philadelphia General Hospital has been the removal of the patients from their environment. Those sent to Byberry return some months later much improved mentally. Frequently patients in the early stages of paresis do not appear ill to their families. After spending a few weeks at such a place as Atlantic City, they return far more improved than they would after a course of neosalvarsan.

One authority stated that the incidence of neurosyphilis depended on the amount of skin involvement in the secondary stage, i. e., that a good reaction in the skin would promise the development of natural immunity in the third stage. To induce a good skin reaction requires brisk mercury rubs. Much mercury is not absorbed, but a brisk rub for more than a half hour does produce natural immunity generally.

Another method is the radiation of the skin with ultraviolet light. Another procedure is diet. The patient with tabes is 20 to 30 pounds underweight; if he can be made to gain, the tabetic condition will improve although this improvement does not include the ataxia. Vitamin therapy will help protect the central nervous system.

Many people have been the victims of enthusiastic therapy. This may be carried to the point where anemia develops. An adequate blood supply must be insured. All healing in human tissues is secondary to adequate circulation. Methods which will increase local circulation are such as lumbar taps, which induce the replacement of fluid in the subarachnoid spaces by blood.

Very recently he has been using another method of improving the cerebral circulation. He began with a series of patients with hemiplegia and used a diathermic

current applied directly to the brain; more recently he has used the short wave radio current. Certain observations on animals bear promise of benefit; in animals there is very little actual elevation of brain temperature with the milliamperage used in man, the elevation is only a few degrees, and during this diathermia, there is a very abrupt rise of intraspinal pressure which evidently means increased blood supply in the brain. The general body temperature need not be elevated.

Before beginning this form of treatment, many tabetic patients complain of insomnia; shortly after beginning treatment, the hours of sleep will be increased, the mental dullness diminished, and in the cases of chronic epidemic encephalitis there has been an improvement in the tremor. In all of these diseases, there are pathologic changes which no one within reason would expect to be influenced, such as the softened area about a thrombus; all such lesions have a surrounding area of reactive inflammation. By transcerebral diathermia the reaction around these areas can be speeded.

Their experience in the treatment of neurosyphilis by these methods has been too inadequate; spontaneous periods of improvement will occur at times despite any treatment. To attempt to claim that one method is superior over another is foolhardy.

Many patients have been destroyed by the enthusiasm of their physicians, who by injecting neosalvarsan or bismuth, one after the other into the patient, have destroyed natural resources of protection. In early neurosyphilis more patients are damaged by too early specific treatment than are damaged by neglect. Treat the patient, not the disease.

In discussion Peter P. Mayock, Wilkes-Barre, said that his patients with neurosyphilis, who require institutional treatment, go elsewhere and are not followed up. He has often questioned how much good intensive treatment of neurosyphilis has done. Prophylaxis with neosalvarsan has been of benefit. He treated many in the pre-arsphenamine era, but he could not render them noninfectious to others. The state clinic at Wilkes-Barre generally uses arsphenamine. Dr. Mayock considers they see less neurosyphilis than in the pre-arsphenamine days. He asked the essayist's opinion of the Swift-Ellis treatment in tabes. He considers it has been of great benefit. Wm. Baurys, Nanticoke, said the smaller medical centers do not afford access to malarial organisms nor the facilities for using them. The next best thought is the treatment with typhoid vaccine intravenously. He uses the Nelson method. The individual is given 0.1 c.c. vaccine intravenously and 2 hours later is given another dose which will run the fever up to 105° F. He asked the essayist's opinion of this method. He did not understand the statement about the use of heavy metal therapy after neurosyphilis has been diagnosed; he does not agree that therapy should be stopped at such a stage. Cyrus Jacobosky, Wilkes-Barre, asked what experience Dr. Hadden had with nonspecific treatment in the intra-ocular complications. Peter P. Mayock asked what experience Dr. Hadden had with nonspecific treatment in interstitial keratitis.

Dr. Hadden, in closing, said it must be understood that the final word in the treatment has not yet been said, but he has a notion that the day of chemotherapy in syphilis has reached its peak, that the final solution will be in biologic therapy, and that the next approach will be the development of immune antibodies. Syphilitics have been divided into: (1) Those who at the beginning show no effect of their syphilis; (2) those who at the beginning appear to be doomed; and (3)

those who by treatment could be moved out of (2) into (1). One authority claimed to have been able to demonstrate the organism in every tissue and organ of the body, including the dura, before the chancre even appears. Neosalvarsan will render the individual non-infectious and in the early stage treatment cannot be too vigorous from the public health standpoint. The Wassermann test is not a criterion of cure; 10 per cent of their paretics have negative blood Wassermann reactions, 25 per cent of their tabetics have negative blood Wassermann reactions, and 15 per cent of them have negative spinal Wassermann reactions. These are the burned-out cases; to start chemotherapy on them is to start their root pains and make them miserable. In the periods 1912-1922, and 1922-1932, the admissions to the psychopathic department increased over 500 per cent. Neosalvarsan has increased the incidence of neurosyphilis to some degree as indicated by these figures. His experience with the Swift-Ellis treatment has been limited. He recalled 3 cases of transverse myelitis developing after the Swift-Ellis treatment reinforced by serum therapy. Salvarsan does not pass through the choroid plexus; tryparsamide is a more specific method. They have never screened their malarial cases. After the organisms have gone through many stages, they become practically asexual, and only small doses of quinine are needed to arrest the malaria. The split dosage of typhoid vaccine is the best. He would not stop the heavy metals after neurosyphilis has been diagnosed unless the condition of the patient warrants it; e. g., anemia, kidney complications, *etc.* He has had little or no success in the treatment of optic atrophy by any method of nonspecific therapy. He has never seen a case of optic atrophy improve by any of the methods, but has had interesting results in cases of interstitial keratitis. In general paresis it is the only thing that can be influenced, yet they can never predict just what is going to happen in interstitial keratitis.

May 1, 1935

The meeting was held at Wilkes-Barre. Jos. P. Dougherty, of Ashland, presided. Chas. B. Crittenden, director of the Kirby Health Center, Wilkes-Barre, read a paper on the "Epidemiology of Measles." He said in part:

Nearly every individual at some time in his life has had measles. Measles has been and is one of the most serious of the common communicable diseases.

Measles is a disease of early childhood, and nearly all from age 2 to 10 have had the infection. The older the child, generally speaking, the less the danger. It is serious in an adult. Practically every child is given a 6 months' immunity through transmission of immunizing bodies by the blood of the mother.

There are a few facts relating to the transmissibility of measles which are now pertinent. It is transmitted directly from person to person, probably through nasal and buccal secretion, sneezing and coughing projecting the droplets into the air, which are inhaled by susceptible persons. Neither foods nor animals have acted as vectors in epidemics.

Infection is at its height 3 to 4 days prior to the time of the eruption. The ability to transmit infection ceases the moment the temperature returns to normal, hence it is not transmissible during the desquamation stage. The period of incubation is from 9 to 11 days, and the eruption appears on the fourteenth day.

Isolation of cases is of no value from the standpoint of prevention, since the period of infectiousness is from 3 to 4 days before the appearance of the eruption. Be-

sides only 50 per cent of the cases are seen by a physician and the householder seldom makes a report. If the patient is of school age he is investigated because of absence from class.

In Wilkes-Barre there are about 1200 births annually, hence there are this number of susceptible children added to the population yearly. During the past 25 years there have been over 15,000 cases reported in the city, an average of 600 a year, excluding the present epidemic. There should be about 30,000 cases reported in the 25 years. There is an annual increment of 1200 nonimmunes. Thus, the control consists of measures not to reduce the incidence but the mortality, for no community has succeeded in preventing the disease.

The parent looks upon measles as a necessary evil. Some deliberately expose their children of preschool age. This is an error, as the death rate in this group is higher. Every case is not only measles but a bronchopneumonia of varying degree. This statement is based upon roentgen-ray studies of 900 children at Bellevue, New York. The fatality rate in Wilkes-Barre in 25 years has been 1 per cent; 80 per cent were under age 5. Complications, especially bronchopneumonia, were the cause of death. The rate varies with the epidemic.

It is not practical to prevent measles, but the object is to attenuate the force of the attack. This is done in 4 ways: Convalescent serum; immunizing serum; immunizing globulin or placental extract; and whole adult blood. At the present time some research has been done by the Board of Health in coöperation with private physicians in the modification with placental extract. McKann and others have proved the presence of immune bodies for diphtheria, scarlet fever, and poliomyelitis. There is no method for proving the absence or presence of measles antibodies in the extract, except through deductive reasoning. If antibodies of scarlet fever and diphtheria are present, then those for measles should also be present. As measles in a child under age 6 months is scarcely known, immunity must be transferred from the mother. Measles will occur in a child less than age 6 months if the mother has not had an attack.

Placental extract has been used upon 27 children thus far. The following facts are noted: There were no reactions in 20 cases, slight in 6 cases, and severe in 1 case. Eighteen showed definite modification, that is, a slight temperature, rash for one day, or no rash and with Koplik spots. There was no modification in 9 cases.

No definite conclusions can be reached at present as to the full value of the extract. From the various studies it would seem to be of value in modifying the disease.

In discussion Louisa Blair, Wilkes-Barre, found in the local schools that the cycle for measles is 3 years. The number of children who have been out of school with diphtheria during the last 37 years has gradually decreased. There was a child, age 6, who ran away from home in the acute eruptive stage of measles and escaped his mother to attend a motion picture recently. Francis T. O'Donnell, Wilkes-Barre, considers the most important thing about measles is not prevention but modification. He has not had the same results with placental extract as the others reported. He asked if they take into account time of invasion, stage of invasion, Koplik spots, rhinitis, pneumonia, *etc.* There must be a change in temperature and the rash, with absence of mucous membrane symptoms, in order to say a case is modified. There is the human factor that if we can get the extract to do the work, it will mark real progress in medicine.

May 15, 1935

The meeting was held in the Medical Building, Wilkes-Barre, President Joseph Dougherty, Ashley, presiding. Dr. Conlan, Pittston, was elected to membership. John Brennan, Scranton, a member of the State Legislative Committee, spoke on the importance of certain bills now before the legislature. Walter J. Larkin, Scranton, spoke on maternal mortality with a survey of preventable maternal deaths. He asked for the coöperation of all physicians in this work.

Frank H. Krusen, Philadelphia, gave an address, supplemented by lantern slides, on "Physiotherapy and Its Use in General Practice." He said in part: Physiotherapy is the newest and oldest phase of medical practice. Only in the last few years has it become a branch. In the past 7 years only have courses been given in the medical schools.

Physiotherapy is the treatment of disease by means of water, light, heat, massage, electricity, *etc.*

Infra-red rays are divided into near and far; the near ones penetrate to three-fifth of an inch and a 200 watt tungsten lamp is needed. A household heater is a good source of far-off rays. The near ultra-violet rays are antirachitic.

Two laws of importance are: Always treat a patient at a distance vertically from the lamp; and the nearer the lamp is to the patient, the greater the intensity of light, so do not have the light too near.

The word electricity was coined by Sir William Gilbert, a physician to Queen Elizabeth. Later other terms were used, such as galvanic current, *etc.* Work was done by introducing ions into the body by the use of galvanic currents. Atrophy is prevented by sinusoidal currents until regeneration of the nerve is begun.

Diathermy is a through and through current. There is more heat penetration by this method.

It was found that short waves are used to produce fever and in the midwest and far-west many are buying short radio wave machines. These can be used in any disease where the elevation of temperature is beneficial as in chorea, and in tertiary syphilis, instead of induction by malaria.

Mechanotherapy includes massage and corrective exercises. Passive vascular exercise is used in Buerger's disease, arteriosclerotic gangrene, or diabetic gangrene, *etc.* Dr. Landis, University of Pennsylvania, found that in normal individuals there is reflex vasodilatation by immersing the arms in hot water and also increased heat in the lower extremities. If there is gangrene of the lower extremities this does not occur.

Fever was first produced by the use of the short radio wave fields in cerebrospinal syphilis. It was found that when the perspiration was great the patient was uncomfortable. To combat this a small dryer was used like that used in drying hair but this was unsatisfactory. Dr. Simpson later designed a bed in which the patient was placed. There were various parts which took care of the perspiration and adjusted the amount of heat, *etc.* With this it was noted there is an increase of the leukocytes, and the immature cells with a shift to the left.

When it is necessary to apply heat to the body it is better to alternate heat and cold in the following manner: Apply heat as compresses for 5 minutes and then cold for 1 minute. If a part cannot be immersed, then use a bath spray in the same manner. Always end the treatment by the use of heat.

The paraffin bath is also of value. Take a double boiler, put in enough paraffin to fill the inside boiler,

bring it to the melting point, and allow it to cool with a fine scum on the surface. Immerse the part in the bath a number of times. As this is cold it will roll off the part and the skin is hyperemic. If a part to be treated cannot be immersed, then a paint brush is used to apply the hot paraffin.

Directions for a homemade baker, as well as other kinds of apparatus, can be obtained from the Council on Physical Therapy of the A. M. A.

MARJORIE E. REED, *Reporter.*

LYCOMING

Apr. 12, 1935

The meeting was held in the society's rooms at Williamsport, President Herbert P. Haskin in the chair.

Isadore Kauffman, of the University of Pennsylvania and Phipps Institute, gave an address on the "Physical Signs in the Early Diagnosis of Pulmonary Tuberculosis."

Dr. Kauffman stated that the early diagnosis of tuberculosis is often most difficult. He believes that the disease will never be eradicated in the same sense that some of the acute infections have been for the reason that it is a parenchymatous involvement.

The first problem and one of the most important factors is a careful history. The following points must be carefully checked: History of hemoptysis; idiopathic pleural effusion; persistent cough for 6 weeks or more in an adult; loss of weight and strength; and afternoon fever.

When the history brings suspicion of tuberculosis nothing should be left undone to make an early diagnosis. The roentgen ray is very useful but the roentgenologist must use discernment in its interpretation. Physical signs plus symptoms demand treatment.

Physical signs unaccompanied by symptoms need watching. A recent or old lesion is hard to differentiate by roentgen ray. Physical signs plus roentgen-ray findings in the bases of the lungs should not be called tuberculous without positive sputum findings. Massive lesions of the upper lobes of the lungs without positive sputum findings would suggest a nontuberculous condition. Ten sputum examinations over a period of 2 or 3 weeks are necessary before we are satisfied with a negative report. Early tuberculosis gives a positive sputum finding in 5 to 10 per cent of cases. Ordinarily positive sputum findings mean advanced involvement.

In children the Mantoux test is of the greatest value. Physical signs in early tuberculosis of childhood are often of little or no value. Here the roentgen ray is of great value if properly interpreted.

The blood sedimentation test is open to the same fallacies as the roentgen ray.

In making a proper physical examination of these patients they must be stripped to the waist and the proper stethoscope used, preferably the bell type, the Bowles being useless for early or minimal disease. Dr. Kauffman considers the physical measures to be employed important in the following order: Auscultation, inspection, palpation, and percussion.

In auscultation start at the base and proceed toward the apex. Hear the spoken voice first and then the whispered voice. The latter is very important; the patient should be instructed to whisper very softly and if the chest is negative the sound should be inaudible, but if audible, there are pathologic changes present. Start at the fifth interspace on the right side and ascend anteriorly. Breath sounds, if bronchovesicular, are

pathologic and usually mean old tuberculosis. Early disease usually presents rough, jerky, suppressed, or so-called granular, breath sounds.

Râles must be elicited after a slight cough, at the end of expiration. Râles from bronchitis are usually heard on inspiration and expiration without a cough, and asthma on expiration, the latter being of the wheezing, musical type. In tuberculosis the râles are crackling and require cough to bring them out in early cases. In late cases they are heard without the cough. Blood-spitting patients should not be asked to cough because of the danger of hemorrhage.

In inspection look for flattening or depression of the upper portion of the chest. This usually means old tuberculosis. More important is lagging of one or the other side.

Percussion usually should be light and the resistance to the finger should be noticed. Again proceed from base to apex.

After studying the anterior chest as previously indicated proceed to the posterior surface; the 3 important areas here are bases, interscapular regions, and apices.

In the interpretation of the right upper lobe, if the signs are suspicious without suggestive history we should say "suspicious, lesion not located." If signs are found in this area, repeated sputum and roentgen-ray examinations should always be done. Findings on percussion are quite important.

In discussion Ross K. Childerhose, of Devitt's Camp, emphasized 3 important factors in the history, namely, history of fatigue or lack of endurance; gradual progressive loss of weight, such as 6 to 10 pounds in 4 or 5 months; and cough lasting 5 to 6 weeks. Seventy per cent of early cases will show history of fatigue. Some cases do not show gradual loss of weight. All chronic underweights are potentially tuberculous. Young girls from age 16 to 18 show twice as much tuberculosis as boys of the same age. He criticized the modern dietary fads among young girls. In regard to chronic cough, many times an early tuberculosis case will be diagnosed cigarette cough, chronic bronchitis, elongated uvula, *etc.* Chronic bronchitis is more of a symptom than a disease. The sputum examination should always be used to make a positive diagnosis, but do not wait for a positive sputum finding for this may not occur until very late. He enumerated 5 findings, any one of which should arouse suspicion and any 2 of which should make a reasonable diagnosis: Idiopathic pleurisy; hemoptysis; persistent cough of 5 or 6 weeks' duration; râles found beneath the second rib; and pulmonary pathology beneath the second rib as shown by roentgen ray. Ninety-five per cent of the cases of idiopathic pleurisy are tuberculous. Hemoptysis should be interpreted tuberculosis until proven otherwise. Dr. Childerhose is enthusiastic about the value of roentgen ray in diagnosis.

Other participants in the discussion mentioned as causes for chronic cough, malignancy of the respiratory system, sinus infection, wax in the ear, heart disease, and elongated uvula (the latter being infrequent).

Dr. Kauffman closed the discussion by citing a case referred to him as tuberculosis but which after persistent negative sputum studies was proven to be a case of cardiac disease with decompensation. On the other hand, he found that 10 per cent of old men in a home with chronic cough were tuberculous, as determined by the sputum. Between the ages of 15 and 40 there is much more tuberculosis than after age 40. After age 40 cancer of the lungs must be considered. In tuberculosis of young girls there is a high percentage of acute tuber-

culosis, which is often found at the base of the left upper lobe and is extremely serious. The temperature is best taken at intervals during the day, and from 4 to 8 p. m. shows the highest. In a child look upon afternoon elevations with suspicion, especially if accompanied by loss of weight, fatigue, *etc.*

LA RUE M. HOFFMAN, *Reporter.*

McKEAN

Apr. 16, 1935

The meeting was held at Bradford. Dinner was served. Oswald S. Lowsley, New York City, director of the Department of Urology, James Buchanan Brady Foundation, New York Hospital, delivered an address. He emphasized that while transurethral resection is a worthy advance in urology, it had a limited field of usefulness in his practice. He also expressed the belief that it should be done less often by others.

THOMAS S. FANNIN, JR., *Reporter.*

MONTGOMERY

May 1, 1935

The meeting was held at Norristown; attendance was 50 members and 2 visitors. Private contributions were made to the George A. Knowles Memorial Fund. The program consisted of a paper on "Cranial Injuries," by Francis C. Grant of the University of Pennsylvania. The discussion was opened by Donald M. Headings on "Infection," Frank C. Parker on "Eye Symptoms," and John C. Simpson on "Laboratory Findings." Dr. Grant said in part:

In the treatment of cases of head injury, it is important to remember that it is the injury to the brain and not the injury to the overlying bone that is vital. In further consideration of the treatment of these cases, the limitations of therapy must always be kept in mind. There are only 2 conditions consequent to brain injury which can in any way be affected by treatment: Meningitis can be prevented and increased intracranial pressure can be relieved. It must always be remembered that a contused or lacerated brain cannot be sutured, so that a contusion or laceration of the brain itself, disregarding any other condition such as hemorrhage or edema which may accompany it, is not a surgical lesion. Furthermore, the common result of brain injury is bruise of the brain. This injury is much more common than is hemorrhage.

For purposes of treatment, cases of cranial injury are divided into 2 groups—those which require immediate surgical intervention and those which can be kept under observation. In the first group fall all lacerations whether or not accompanied by fracture (in these cases immediate wound repair is essential to prevent infection and possible meningitis); all cases with evidence of localized or progressive lesions, such as extradural or subdural hemorrhage; and all cases of depressed fracture if the fracture lies over the motor cortex. All cases which do not fall into these groups can be kept under observation.

When a case is first seen it is important to find out if possible the way in which the accident occurred. If violence is applied to the head while the head is stationary, the injury to the head occurs immediately at the point of impact. If the head is in active motion and suddenly strikes against some immovable object there is not only damage to the brain at the point of impact but also a contra-coup injury, because under this condition the brain is shaken back and forth within the bony skull.

It is important to know what the patient's condition

was immediately after the injury. To determine whether or not the lesion is progressive, a basis of symptoms must be established from which the progression can be determined. The earlier this basis can be established the sooner it can be determined whether or not progression is occurring.

Pulse, temperature, respiration, and blood pressure should be immediately estimated. If the patient is in shock, proper antishock treatment must be instituted—elevation of the foot of the bed, external heat, and 100 c.c. of 50 per cent glucose by vein. After the patient has recovered from shock, lumbar puncture with manometric readings should be done. Sufficient fluid should be removed to reduce the pressure by one-half its elevation above normal. If the fluid be bloody, lumbar puncture should be repeated every 8 hours with careful observation of the above described procedure concerning the pressure, until the fluid becomes yellowish. Absolute rest with sufficient sedatives in the form of chloral and bromides, slight elevation of the head of the bed, and ice cap to the head are all indicated. Morphine is contraindicated as it slows the respiration and narrows the pupils.

Immediately at the time of admission and before antishock treatment is instituted a brief neurologic examination should be done to determine the amount of motor paralysis, sensory loss, the activity of the reflexes, the state of the pupils, and the degree of stupor and unconsciousness. A more thorough neurologic examination can be carried out when the patient has recovered from shock. If at any time during the period of observation progression of symptoms appears as shown by increased paralysis, increased stupor, convulsions or incontinence, and variation in size of the pupils, *etc.*, a small trephine opening over the suspected area should be made to discover whether or not a hemorrhage exists. This procedure is best carried out under local anesthesia, but if the patient is restless avertin anesthesia may be used. A formal decompression or a bone flap is not advisable unless the exploratory trephine revealed a pathologic condition.

The most difficult diagnosis lies between extra- and subdural hemorrhage and contusion of the brain. Contusion of the brain is by far the commoner of these lesions and produces immediate symptoms which show no tendency to become progressive. A hemorrhage, on the other hand, almost certainly will not produce immediate symptoms. There will be a latent interval of shorter or longer duration and when the symptoms do appear they tend to increase in severity. However, it must always be remembered that cranial injury is an acute process; that the brain responds to a bruise precisely as does any other part of the body, by swelling and edema. This swelling and edema produce increased intracranial pressure. However, this swelling and edema, since it is an acute process, should commence to show evidence of regression at the end of 4 or 5 days precisely as does a bruise elsewhere. Therefore, if localized nonprogressive symptoms exist, if they do not regress within 5 days and if the intracranial pressure remains elevated, it would seem indicated to trephine over the suspected area and determine whether or not a hemorrhage has occurred, and is the cause of the delayed recovery.

Regarding dehydration: In those cases in which blood appears in the spinal fluid, dehydration is contraindicated. The patient should have at least 1200 c.c. of fluid in 24 hours so that sufficient spinal fluid will be produced to float the red cells through the subarachnoid space and free this space of blood. If there is no blood

in the cerebrospinal fluid, moderate dehydration, say to 1000 c.c. in 24 hours, may be prescribed, but if dehydration is used, particularly if the patient is old, very careful observations must be made lest the patient become too dehydrated with resulting interference in renal function.

The patient who has sufficient injury to result in unconsciousness should be kept flat in bed for at least a week following the injury. If there is no blood in the spinal fluid, and the pressure is not increased, the patient may leave the hospital at the end of a week with instructions to remain at home another week and not attempt to return to work for a month. If the spinal fluid is bloody and the pressure high, the patient should be kept in bed for 2 weeks, then permitted to be about the hospital for 2 or 3 days and if no headache occurs the patient may then return home with instructions to be quiet at home for 2 weeks. The individual should not attempt to return to his occupation for at least 6 weeks after discharge from the hospital.

Donald M. Headings opened the discussion from the standpoint of "Infection." He said that the treatment of infection in head trauma cases depends primarily on its prophylaxis. The prophylaxis should begin at the time of the injury when first seen, or if the patient is in shock a delay of a few hours until the patient has responded to shock treatment is advantageous. All scalp wounds should be shaved wide of the injured area; a thorough débridement should be done followed by mechanical cleansing and the antiseptic of your choice. With such treatment the average laceration may be sutured without drainage. Hemostasis should be secured. In the type of cases in which blood or spinal fluid is exuding from the ears, mechanical cleansing of the external auditory canal with probably the instillation of a few drops of mercurochrome is sufficient. Douching of the ears or nose should be absolutely prohibited. With such treatment, together with nature's healing powers, the majority of infections will be prevented or minimized to a large extent.

Frank C. Parker opened the discussion from the standpoint of "Eye Symptoms." Dr. Parker considers that eye symptoms occurring with cranial injuries are often most important as aiding in the diagnosis. A so-called "black eye" may be due to extravasations passing from the supra-orbital fissure. Proptosis usually indicates a ruptured internal carotid artery and cavernous sinus, and manifests disease by diplopia. Ptosis may be due to involvement of the third cranial nerve. In oculomotor palsy there are other groups of muscles affected. Dilatation of the pupil and contraction of the pupil are important factors in cranial injuries. The Argyll Robertson pupil may occur in traumatism to the skull. Hemianopia shows the lesion to be between the reflex arc and the cortex. Homonymous hemianopia is the only perimetric field change that can result from a lesion back of the chiasm in the optic tract. Choked disk may occur as a result of intracranial pressure. In inspecting pupillary reactions always take into consideration the possibility of contraction due to drugs as well as to posterior synechiae, the result of a previous iritis. Drugs or a partially paralyzed iris due to trauma must be excluded when the pupil is found partially or wholly dilated.

John C. Simpson, in opening the discussion from the standpoint of "Laboratory Findings," stated that there are very few laboratory findings in head injuries, the blood in the spinal fluid being the most important and practically the only finding.

WALLACE W. DILL, *Reporter.*

NORTHAMPTON

Apr. 19, 1935

The meeting was held at the Easton Hospital.

William L. Estes, Jr., said that the Cancer Committee of this society had arranged for a meeting of the Pennsylvania Cancer Commission to be held at the Hotel Bethlehem sometime in May. He suggested that it supplant the regular meeting of this society for that month. There will be an evening meeting open to the public by ticket only. The tickets will be distributed by the physicians.

Reporting for the Postgraduate Study Committee, William L. Estes, Jr., stated that plans are being formulated, and that the first seminars will be held in the fall.

Paul Correll discussed the advisability of the use of advertising in the bulletin. On motion the Executive Committee was instructed to consider the advisability of the use of ethical advertising in the bulletin, along the lines of the publications of the Montgomery and Lycoming county medical societies.

Eugene Polgar was extended the privileges of the society until he has had an opportunity to fulfill the requirements for papers for United States citizenship.

Francis P. Judge, of the Department of Urology of the Mercy Hospital, Wilkes-Barre, gave an address on "The Early Recognition of Prostatism and Its Management."

He said that 25 per cent of all men over age 50 show signs of prostatism and 20 per cent of these have signs of malignancy. The early symptoms are nocturnal frequency, diminution in the force of the urinary stream, and bladder irritability. It is rare for stricture to produce urinary symptoms for the first time in a patient age 50 or older, so that urinary difficulty coming on after age 50 is almost pathognomonic of prostatism. The disease is progressive, and palliative measures only delay the day of operation. The operation of transurethral prostatectomy was described. The preoperative preparation of the patient and the postoperative care were discussed. The discourse was illustrated with lantern slides.

District Councilor Frederick J. Bishop spoke about the proposal to transfer certain county societies to other councilor districts. It is proposed to transfer Northampton to the fourth district which covers areas that are more comparable economically to it than its present district. He said that advertisements in the bulletin are not much of a source of income, that those societies using such in their bulletins rarely do more than break even. He strongly advised the society to keep in constant contact with its state and national legislative bodies.

FREDERICK J. PEARSON, *Reporter*.

PHILADELPHIA

Apr. 10, 1935

FIRST COUNCILOR DISTRICT MEETING

While corresponding on the calendar to the regular stated meeting of the county society, this meeting was a Councilor Meeting of the First District which is confined to the County of Philadelphia, and was attended by several officers of the State Society: Moses Behrend, Philadelphia, president; Thomas St. Clair, Latrobe, third vice-president; Trustee and Councilor Edgar S. Buyers, Norristown, chairman of the Board of Trustees; Trustee and Councilor Augustus S. Kech, Altoona; Trustee and Councilor Clarence R. Phillips, Harris-

burg; Trustee and Councilor David W. Thomas, Lock Haven; Trustee and Councilor E. Roger Samuel, Mt. Carmel, and others. The meeting was preceded by dinner in the Grill Room of the County Medical Society Building. Trustee and First District Councilor George C. Yeager presided.

"The Diagnosis and Treatment of Influenza," was the title of the paper presented by Scott Johnson, of the New York Hospital and the Department of Medicine, Cornell University Medical College, New York City. Dr. Johnson traced the history of influenza from the time of its first recorded observation to the present day. The widespread distribution of the affection, even in the absence of epidemics, places upon every practitioner the responsibility of being informed of the most recent discoveries in the diagnosis and treatment of the disease.

Influenza may be defined as a highly contagious, acute, specific, febrile disease characterized by a sudden onset after a short incubation period, with a variable symptom complex, but usually with marked prostration, headache, pains in the back and extremities, and respiratory catarrh. In uncomplicated form it usually lasts 3 to 5 days and is not a fatal disease. Because of its predisposition to secondary infection, particularly of the lungs, influenza exercises its adverse effect on the mortality, most commonly in the epidemic and pandemic form of the disease. Not infrequently the protracted convalescence after an attack of influenza is much worse than the acute phase of the disease. This slow recovery is principally due to the debilitating effect of the influenza toxin on the nervous system.

The problem of proving the primary etiology of influenza has been one of the most difficult for science to solve. Within the last few years, however, important discoveries have been made, which, if they have not solved the problem of etiology entirely, have at least thrown a great deal of light upon it. In 1933, Smith, Andrews and Laidlaw discovered that the ferret is highly susceptible to human influenza. They inoculated these animals with filtered human throat washings and transmitted the disease from one ferret to another by means of a filtered suspension of nasal mucosa. With one strain alone they made 26 series passages. They also found that ferrets that recovered from influenza were immune to reinfection, and that their serum neutralized the virus. These workers also discovered that human serum from convalescent influenza patients contained antibodies which neutralized the virus that would otherwise produce the disease in ferrets. It was also demonstrated that the disease could be transferred from the ferret to white mice, the latter usually developing fatal pneumonia, while the ferrets usually recover.

Francis, of the Rockefeller Institute, confirmed these findings by simultaneous but wholly independent investigations. The results of all these studies are very strongly conclusive that the primary cause of influenza is a filter passing virus.

Shope and Lewis, through their studies on swine influenza, are of the opinion that swine influenza is a conjoint infection with a filtrable virus and a hemophilic bacillus. Their experiments support the assumption of symbiotic infection occurring in swine influenza, and it seems reasonable to assume further that a similar symbiotic infection between a virus and one or more bacteria may occur in human influenza. To date the virus has not been cultured in vitro.

Although the accumulated evidence points to the primary infectious agent of influenza as being a virus, there is no question of the importance of secondary invaders such as Pfeiffer's bacillus, pneumococci, and streptococci

in determining the course of the disease. Much of the detailed bacteriology of influenza remains a disputed field.

Influenza is presumably transmitted chiefly by "drop-let" infection from person to person, although the infection in rare instances may be transmitted by contact. It is believed that the virus gains access to the body through the respiratory tract, the postnasal area usually being the primary focus. It may extend along the respiratory tract or may enter the blood stream direct. The details of the pathology of the disease were given. Reference was made to the variation of the clinical manifestations of the disease with particular emphasis upon the changing character of the epidemic form. The familiar symptomatology was very comprehensively described. In the remarks upon complications, reference was made to pneumonia as being the most dangerous and frequent complication. Its incidence varies in different epidemics. The diagnosis of influenza was said to rest upon its epidemiologic features and general symptomatology. The leukopenia with relative lymphocytosis and absence of eosinophils is a valuable diagnostic aid in uncomplicated cases.

Considerable stress was laid upon the differential diagnosis from other febrile affections with respiratory symptoms. The prognosis in uncomplicated cases is good. While vaccines have been widely used in the prevention and treatment of influenza, the view that the affection is a virus disease would seem to contraindicate their use as a prophylactic measure, but the predominance of complicating bacterial conditions appears to afford justification for their use. These vaccines are those prepared from Pfeiffer's bacillus and the various strains of pneumococci and streptococci. Convalescent influenza serum has not been tried in a wide scale in the prophylaxis of influenza. The avoidance of crowds, the wearing of face masks, and goggles afford some protection. The use of nose drops consisting of sodium ricinoleate (1 to 400) in 2 parts of liquid paraffin, and one part vaseline, with one-half grain of menthol to the ounce of this mixture is recommended. In the treatment of the disease, no drug is specific, and the general treatment of any febrile disease is applicable. Rest in bed, isolation, cool fresh air, adequate protection, and liquid diet are essential. Ice cap to the head relieves headache. Hyperpyrexia is met by external hydrotherapy. Among the drugs used to relieve the symptoms may be included salicylates, aspirin, amidopyrine, phenacetin, Dover's powder, codeine, papaverine. Vapor inhalations of compound tincture of benzoin (4 c.c. to half liter of water) is soothing to the respiratory mucous membrane. Complications must be met as they arise.

In discussion Edward L. Bortz commented favorably upon the laboratory work now being done in the determination of the specific etiologic factor in this affection. Epidemiologically, influenza must depend upon host susceptibility and dissemination of the virus by droplet infection. He leans towards the belief that the infected material remains suspended in the air and may float about indefinitely. He also thinks the leukocytosis incident to the activities of the secondary invaders may mark the leukopenia. During convalescence, when asthenia is pronounced, he advises liquid liver extract.

"Treatment of Pneumonia" was presented by Henry T. Chickering, of the Rockefeller Institute Hospital. He stated that with the modern treatment of pneumonia, 3 out of 4 cases recover with simple specific treatment. Most pneumonia patients are not critically ill for several days; then the picture changes. In the treatment of

pneumonia the most potential agent is the time factor. It is possible for the physician to initiate a preliminary examination which will determine the particular bacteriologic agent involved in the disease. By the Neufeld method it is possible to determine, from the sputum, the type of the infection in one-half to 7 hours. This was demonstrated by slides. The process consists essentially of mixing a specimen of the sputum with any one or each of the 5 types of serum. If the result is positive huge papules appear. A definite result is obtained in 20 minutes.

The use of the blood culture is also valuable in determining serious infections especially at the onset of the disease. It has also been noticed that the patient with a pneumococcal infection appears pale and has a low blood pressure. Slides were shown to illustrate the mortality statistics of cases in the Rockefeller Institute Hospital and in private practice, as well as the results from the use of type serum at the Harlem Hospital. Obviously the best results are obtained when the type of infection is determined early and the appropriate serum is employed immediately. The factor of the expense to the patient often militates against the early employment of these means of diagnosis and treatment. Dr. Chickering gave a demonstration of the method by which sputum test and blood culture could be made with ease, and within a very short time, by the visiting physician. He pointed out also that those cases which are destined to become the more serious will have a positive blood culture in the beginning. Many factors influence the prognosis such as the age of the patient, past history, activity after the onset of the disease, *etc.*

The treatment in addition to the serum comprises physical and mental rest. Other therapy may be determined by the needs of the individual patient. While the patient, for the most part, should lie flat on his back, he should be turned from side to side at frequent intervals. Fluids should be forced and the diet very light. The air of the sickroom should be warm and fresh. Stimulation to combat cardiac insufficiency should be helpful for older patients. Oxygen may be necessary. The Alexander Burgess oxygen has the advantage of being inexpensive. Reference was made to the employment of artificial pneumothorax in pneumonia and slides were shown illustrating roentgen-ray features of cases so treated. The essayist spoke enthusiastically concerning the new concentrated serum for pneumonia cases. The work of Dr. Avery, of the Rockefeller Institute, was mentioned favorably.

In discussion, Leon H. Collins, Jr., described the treatment used at the University of Pennsylvania Hospital in the treatment of pneumonia. This consists briefly of the following: Oxygen therapy; use of specific anti-pneumococcal serum; use of serum of the human type—either serum collected from normal healthy adults or serum collected from patients recently convalescent from pneumonia; use of specific treatments when they bear particularly upon the symptoms of the individual pneumonia patient. He described rather fully the human serum studies made at the University Hospital. His remarks upon oxygen were consistent with the universal experience with this agent. He concurred with Dr. Chickering in the method of approach as well as the therapeutics of the disease.

Apr. 17, 1935

The meeting featured The Twelfth Annual Strittmatter Award, and the Fifth Annual DaCosta Oration.

On the occasion of this meeting there was unveiled a bronze tablet memorializing those members who had

contributed some outstanding service to the Philadelphia County Medical Society. The names placed upon the plaque at this time were those of Isadore P. Strittmatter, James M. Anders and the late L. Webster Fox. After a few prefatory remarks, President Seth A. Brumm unveiled the tablet and called for responses from those whose names were engrossed upon it.

Isadore P. Strittmatter, in accepting this mark of appreciation of his efforts on behalf of the society, made a very stirring and inspiring address on the pleasure and gratification that comes from service to others. Expanding this thought he deplored the tendencies of the times and called for a more rigid observance of the Golden Rule and the decalogue as the way out of the distressing situation that confronts civilization.

James M. Anders, in his acceptance of this new dignity, amplified the theme of the preceding speaker in a manner consistent with all his public activities. The membership of both these speakers extends well past half a century, yet time has made no inroads on their intellectual faculties and both continue to provide inspiration to those of us who tire at times. Dr. Anders, through his sponsorship of the library, has made his place a permanent one in the memory of the society, and took this opportunity to interest others in this commendable undertaking.

Oliver F. Mershon, in accepting the honor conferred on the late L. Webster Fox, paid a glowing tribute to the man who had done so much to conserve the legislative privileges for the medical profession of this state. The many-sided activities of Dr. Fox were noted by Dr. Mershon, but, insofar as this society is concerned, none were so prominent as the protection of the doctors and their rights from the scheming onslaught of the irregular practitioners. As a generous contributor to the library and the Society Building, he has also made a lasting impression upon the history of the society and it is fitting that his name be given prominence in this connection.

At the conclusion of these eulogies, President Brumm presented Basil Beltran, representing the Committee on the Strittmatter Award, who described in detail the history and the various features of the award. David Riesman was called upon for the introduction of the recipient on this occasion, Charles W. Burr. The scroll was then read and the medal presented. Dr. Burr acknowledged the award.

President Brumm then presented Charles F. Nassau, chairman of the DaCosta Foundation, who briefly reviewed the history of the foundation and recited its objectives. At the conclusion of his remarks he introduced the speaker chosen for the oration, Joshua E. Sweet, professor of experimental surgery, Cornell University Medical College, who delivered the Fifth Annual Da Costa Oration.

Briefly this paper consisted of an analysis of medical practice of to-day as contrasted with that of former times, stressing the survival of the fundamentals throughout these distressing years and emphasizing the need of the reciprocating personal interest of the practitioner in his individual patient.

Apr. 24, 1935

CANCER NIGHT

"The Attitude of the Modern Surgeon Toward Cancer Therapy" was the title of the paper presented by Frank E. Adair. Cancer, he stated, stands to-day as the most important single disease of the human race. There are more fatalities annually from circulatory diseases but

these are usually manifestations of other diseases, and are secondary to something else. The death rate from cancer is next to the top. The fact that the tuberculosis death rate has been so greatly reduced in the past 20 years affords the hope that by similar intensive methods of attack, the mortality from cancer may likewise be reduced. Bringing a lesion to the attention of a physician at an early stage means that it should be cured. Education of the laity in early symptoms is therefore imperative and such education is already beginning to be effective. Cancer is always seen for the first time by the family physician, who then refers it to a surgeon to establish a diagnosis and choose and institute treatment. This places the condition as a surgical problem since surgeons are consulted for the majority of cancer cases. It is essential that the surgeon be educated and skilled in the radiologic aspects of cancer therapy as well as in the purely surgical aspects. When a radical procedure is necessary a true and wide excision is called for. The surgeon must sacrifice at times important structures with the idea of later repairing the damage. The same rules apply to cancer surgery as to military surgery. He cautioned, however, against undue manipulation of cancerous tissue, stating at all times it should be regarded as septic. There should be no second use of instruments without sterilization. The electroknife, recently introduced into surgery, has some advantages but these have been shown, by microscopic examination of the tissue removed, to be localized and limited to the zone removed. Electrodesiccation is most useful in recurrent cases and in localized areas. But when recurrence is spread over a wide area irradiation is preferable. It is not for the dermatologist to do major surgery. Orthopedic surgery is often necessary as a follow-up treatment after extensive resections have been made. The diagnosis in early stages of cancer is not always easy.

The textbook descriptions, as a rule, apply to well-established cases. He advocated the utilization of biopsy, roentgen-ray films, the gastroscope, the cystoscope, the ophthalmoscope, and all other modern diagnostic means, in cases appropriate for their use. The remarks in favor of biopsy were especially noteworthy. The detail of the more desirable technic was given. He further stated that the surgeon of the future will be compelled to possess a comprehensive knowledge of the pathology of this and other growths. Radiology being recent in its development, as compared to surgery and medicine, he expressed the belief that it was entitled to further careful study since it has already suggested possibilities beyond the scope of the treatment of former days.

"Diagnosis of Tumors within the Chest with Special Reference to Those That Are Removable" was presented by George P. Muller. Tumors in the chest are almost as important as carcinoma, and clinically they exercise an almost analogous force. The mortality from their surgical treatment is not low but has been diminishing in recent years. There are many varieties of benign tumors but by reason of the firm resistance of the bony chest their growth produces pressure, and in consequence the symptoms are for the most part secondary to pressure. These symptoms are not distinctive of any particular growth but do give evidence as to its relative location. The roentgen ray is employed to determine the size and location of the growth but affords little aid in the diagnosis of the variety of the tumor. Bronchoscopic examination is of value in determining the exact position of the tumor as regards the trachea and the larger tubes. The speaker cited the

varieties of tumors likely to be found in the chest, special mention being made of the lipomas and dermoid cysts. The likelihood of secondary infection was also mentioned. Cancer of the lung was given consideration also. It remains for a considerable time without giving rise to metastasis. If it arises in the main bronchus metastasis is apt to be early, but life may be prolonged in these cases by irradiation. Eradication of the growth offers the only hope of cure, but the method of effecting this is still under discussion. Diagnosis of these growths in connection with the lung is just in the early stage of its development, and, as elsewhere, early recognition holds forth the greatest prospect for cure.

"The Nonspecific Management of the Cancer Patient" was described by T. Grier Miller. He stressed the fact that the physician's duty to his patient does not end when he has brought to bear on the case all the so-called specific measures offered by medical science. While some patients have their disease completely eradicated by these measures, others secure but an amelioration of their symptoms and a postponement of death, or no relief whatever. The cancer patient, it would seem, is always some physician's patient. Such a patient requires, on the part of the physician, a wide experience with people, especially sick people, a capability of understanding their mental and emotional reactions and an ability to manage them. The relation of the physician to the patient must be a personal one. This attitude has already been developed and is most easily maintained by the family physician. Obviously such a patient will show symptoms referred to nearly every organ of the body before the ultimate termination of the disease and make demands upon the resources of even the most resourceful physician. Patience is especially essential. Dr. Miller's delineation of the range of activity on the part of the physician handling such a case was illuminating.

"Current Events in Cancer Research" was presented by Stanley P. Reimann, who stated emphatically at the beginning of his remarks that progress had been made recently in the knowledge of cancer. Considerable progress had been made in the knowledge of how normal cells grow. The fact that control of natural phenomena is based on physics or chemistry has not been lost sight of in this branch of science (genetic experimental embryology). Possibly general descriptive terms have been replaced by chemical and physical terms thus directing the train of thought into the domain of pure science. We have become aware of the enormous possibilities inherent in protoplasm. Experimental embryology has brought out what we formerly thought were the possibilities of protoplasm, but the more recent work has unfolded facts beyond our imagination. It has been found that 8 organisms can develop from 1 egg. The potency inherently present inside cells is greater than we realize, even in the normal course of their growth and development. This knowledge applied to cancer is most illuminating. It draws special attention to the fact that malignant tumors, since they do not respond to influences which promote normal cell growth, must be composed of cells that have something wrong inside of them. It is a mutation process of cells turning into something abnormal. Hence, the cancer cell is called a somatic mutation. These findings in addition focus attention on the possibility that cells can change their internal make-up and turn into cancer cells without the influence of environment. All of us have encountered arguments as to whether a cell is actually an endothelial cell or is only endothelial-like. The knowledge that an endothelial cell can turn into several

varieties of cells has rendered such arguments futile. Necessarily we need a general revision of names used in this connection. Some of the confusion regarding cancer can be regarded as a matter of name and classification. Efforts should, therefore, be made towards improving the nomenclature. A point not generally appreciated is that completely differentiated cells are no longer capable of dividing. Therefore, if such cells no longer can divide, it means that where no multiplication occurs there must be spare parts from which others arise. Cancer can arise only from undifferentiated cells. This fact becomes important in connection with growth, metastasis, erosion, and the understanding of resistance or nonresistance to radium, and roentgen-ray therapy. The subject of the production of cancer by certain tar derivatives was mentioned and consideration also was directed to the production by certain tumors of specific chemical substances exerting certain specific effects on the organism. This paper was received with interest since it brought to the attention of the meeting the line of procedure being followed in the experimental study of this menacing affection.

SAMUEL HORTON BROWN, JR., *Reporter.*

WARREN

Apr. 15, 1935

The meeting was held at the State Hospital for the Insane at Warren; 25 members were in attendance. The medical staff of the hospital provided the program which consisted of a description and case histories of dementia precox, also known as schizophrenia. For purposes of classification 4 types were described.

Robert H. Israel stated that this form of mental disease constituted nearly 50 per cent of the hospital's population and about 25 per cent of the new admissions.

Ira A. Darling spoke of the physique of the patients. He believes it is congenital in origin, something in the germ plasm itself, but it seems to affect preëminently the asthenic type of individual, the long, lean, and lanky, a type that is inclined to be unsocial and unfriendly, the introvert. This trait is often present in early childhood but might not become distinctly pronounced so as to require the care of an institution until after adolescence.

Hilding A. Bengs described Type 1, or the simple type. Many of this class may never cause any trouble. They reach a certain grade in school and then lead a colorless, unemotional life. They seem to stop developing. They present no delusions, but they may be considered odd by their family and neighbors. They have no friends and are apt to be shiftless but still manage to care for themselves to some degree, or they may develop more pronounced traits of mental disorder and require care that the home cannot give.

A case was shown illustrating this point. After leaving school at the sixth grade the patient became untidy, exposed himself in public, ate garbage refuse, yet has a fair intelligence. However, he is quite content to remain in the hospital the balance of his life.

Type 2, called the hebephrenic type, was presented by Morris W. Brody. These patients are imaginative, generous, sensitive, unsocial, have hallucinations and delusions, talk much to themselves, show poor memory, have expressionless faces and many mannerisms, and are often destructive to themselves or others.

Type 3, the cataleptic or catatonic type, was presented by Lawrence E. Schneider. This type is usually sudden in onset; the patients assume fixed positions and remain so for long periods; they exhibit a "lead pipe" fixity, and are difficult to move; some have dilated

rigid pupils and increased reflexes with cyanosed appearance of extremities; some are stuporous, others show excitement at times.

Type 4 was presented by Leonard Rosenzweig. This group is of a paranoid nature, have prominent delusions of persecution, also hallucinations which may induce them to suicide or to commit some crime; they are antagonistic. Cases were shown illustrating the various forms.

A buffet supper was furnished by the hospital medical staff.

May 20, 1935

The meeting was held at Warren; 31 members were present. Lester Knapp, of the University of Buffalo Medical School, gave an address on "Infections of the Anal Tract."

The speaker urged the importance of a local examination so as to expose the crypts which in most instances contain the foci of infection and originate the fistulae. Anal fistulae can be divided into 4 stages: Infection of the cryptae, burrowing, abscess formation, and rupture.

Anal fissures are in their pathology like varicose ulcers. They result from trauma and cause inflammation of the crypts and neighboring papillae and finally produce fistulae and abscesses.

It is important to explore these fistulous tracts, opening them from within outward. The surgeon must be thorough if a cure is to be expected. The after-care is important. Packing should be removed in 24 hours so as to prevent unnecessary scarring.

The essential technic is wide incision and drainage. Most fistulae open internally and the crypts will be found involved in 98 per cent of the cases. Tuberculosis and syphilis are not common causes of fistulae, for only a small proportion of all cases of fistulae can be traced to such an origin.

Christian J. Frantz, Franklin G. Haines, Edwin G. Hamilton and Irving G. Hyer were the hosts for dinner.

MICHAEL V. BALL, *Reporter.*

YORK

Apr. 17, 1935

Charles C. Spangler, second vice-president, presided. Frank H. Krusen, director of the Department of Physical Medicine, Temple University School of Medicine, Philadelphia, spoke on "Physical Therapy as it Relates to the Practice of Medicine."

He said that physical therapy gained prestige through the service it rendered in the World War hospitals through the medium of the physical therapy technician; it is the branch of medicine which deals with the treatment of disease by light, heat, electricity, water, massage, and corrective exercise.

Physical agents to produce fever have lately come to the front. Dr. Krusen discussed passive vascular exercise (as demonstrated by Herman, of Cincinnati), namely, heat in the circulation of the extremities; production of negative and positive pressure causing active hyperemia and used in early gangrene, arteriosclerosis, and Buerger's disease.

Light therapy, the discoveries of Kromayer in the use of ultraviolet rays and the carbon arc, cold quartz, and large reflector of deep therapy as well as the S2 lamp were discussed. The mechanism for testing, on the arm, the dose of ultra-violet rays to be given to blonde and brunette persons was discussed. The inverse square law in irradiation was explained, as well as the

cosine law. A description of the hot spots in radio field was given. In electrotherapy, using galvanic and sinusoidal currents, the histamine ions produce low lying hyperemia; acetylbetamethyl coline is also used.

The sinusoidal or wave-like currents are useful in peripheral nerve injuries, atrophied muscles, torticollis, myositis, and myalgia.

The high-frequency of d'Arsenval passes rapidly through tissues without shock at the rate of 1,000,000 cycles per second (diathermy); here the heat is greatest on the surface and often very little in the deep tissues. Electrocoagulation, desiccation, and fulguration result from the use of high-frequency. Cautey is different, as needle itself is hot. The radio-knife, Bove's knife, and the acusector knife of Kelly were explained.

The radio-wave field, where heat is passed through an electrostatic field with a rubber pad away from the area to be treated, was explained.

The subjects of mechanotherapy and hydrotherapy were not discussed, but the treatment of sprains by alternating cold and heat, or the use of the contrast bath or the paraffin bath were given.

In discussion J. Wesley Stick, Hanover, asked whether the absorption of a cataract or optic atrophy or muscle imbalance in the eye could be treated with electricity. H. Malcolm Read, York, asked how ultraviolet irradiation acted in intestinal tuberculosis.

Dr. Krusen, in closing, stated that Nugent of Chicago, has treated such eye conditions as corneal ulcers and optic atrophy; that the Henry Ford Hospital in Detroit uses fever in the treatment of optic atrophy with encouraging results, as does Peck at Ann Arbor. He stated that there would be a fever therapy conference in Dayton, Ohio, in May, 1935; that Edgar Mayer's opinion in extrapulmonary tuberculosis was valuable; and that an increase in vitamin D and stimulation of calcium and phosphorus metabolism probably took place, but that the actual reasons for good results such as Rollier obtained were difficult of solution.

May 15, 1935

President Robert L. Ellis presided.

The meeting was held in conjunction with the early diagnosis campaign of the National Tuberculosis Association and sponsored by the York County Tuberculosis Society, but was a regular meeting of the York County Medical Society, and was devoted entirely to a discussion of the diagnosis and treatment of pulmonary tuberculosis.

Abraham J. Cohen, of Philadelphia, director of the Eagleville Sanatorium, Eagleville, said in part:

Tuberculosis mortality statistics have dropped rapidly in the last 50 years and particularly in the last 10 years. The greatest advances in the treatment of the disease have hinged around the proper application of surgery of the chest performed by those especially trained in thoracic surgery. Operations on the tuberculous should not be entrusted to the general surgeon nor should they be done in a general hospital. Remarkable cures may be found in those patients who are carefully selected and treated surgically by trained physicians.

J. Gershon Cohen, instructor in radiology in the Graduate School of Medicine, University of Pennsylvania, Philadelphia, gave a brief summary of the surgical treatment of tuberculosis, particularly stressing artificial pneumothorax, internal pneumolysis, and the various modifications of paravertebral extrapleural thoracoplasty. He showed lantern slides to demonstrate these and discussed in detail with lantern slides the double-contrast enema to diagnosticate tuberculous colitis.

Luncheon was served. H. W. Hetherington, chief of clinic, Henry Phipps Institute, University of Pennsylvania, Philadelphia, said that tuberculosis in children under age 2 is a serious but not incurable disease. In persons from age 2 to 12, the human economy seems to bear a great resistance to tuberculous infection, but in persons over age 12, and particularly during adolescence, infection must be carefully watched for fear of the presence of definite clinical disease, which becomes more common up to age 40. Dr. Hetherington quoted from his experience in case studies of families in which there was open and closed tuberculosis respectively.

J. C. Cutler, Philadelphia, chief of the pneumothorax

clinic, Henry Phipps Institute, University of Pennsylvania, detailed and demonstrated on the screen with slides his method of oleothorax or maintenance-thorax and in just which cases this procedure should be used. He outlined the satisfactory results in carefully selected patients in whom he has performed internal pneumolysis and stressed the necessity at all times for intimate relationship between the tuberculosis internist, the surgeon, and the roentgenologist. Dr. Cutler showed the instruments he uses in his work.

There were about 60 physicians from York, Adams, and Lancaster counties present.

H. MALCOLM READ, *Reporter*.

The Woman's Auxiliary to The Medical Society of the State of Pennsylvania

MRS. GEORGE C. YEAGER, *Editor*, 1419 E. Susquehanna Ave., Philadelphia, Pa.

INVITATION TO THE STATE CONVENTION

The Woman's Auxiliary to the Dauphin County Medical Society extends an invitation to the wives of all the doctors of Pennsylvania to attend the convention to be held in Harrisburg, Sept. 30 to Oct. 3, 1935. Mrs. Laurrie D. Sargent, president of the Woman's Auxiliary to The Medical Society of the State of Pennsylvania, conferred recently with Mrs. Joseph W. Shaffer, chairman of the convention, and approved the convention plans. This invitation is extended with the sincere hope that every woman will attend the convention and aid us to make it a success.

HELEN G. (MRS. GILBERT L.) DAILEY,
Chairman of Publicity.

COUNTY AUXILIARY REPORTS

Delaware.—On Apr. 3, the annual card party for the Medical Benevolence Fund was held, which was a financial success. Cards were followed by a musical program. A buffet supper followed.

On Apr. 11, the regular monthly meeting took place at the home of Mrs. Herman Gold in Chester. Delegates were elected to the state convention. A program of music and readings was followed by refreshments.

On Apr. 26, a luncheon board meeting was held at the home of Mrs. W. A. Landry of Swarthmore.

Erie.—The meeting was held at the home of Mrs. Maxwell Lick, May 6. Mrs. C. W. Fortune, president, presided.

It was approved that the magazine *Hygeia* be furnished for one year to the Y. W. C. A., Erie Boys' Club, Neighborhood House, and the nurses' homes of St. Vincent's and Hamot hospitals. One dozen bed-

spreads were sent to the Louise Home; \$100 was given to the Medical Benevolence Fund, and \$2.50 to help defray expenses for the national convention to be held at Atlantic City. At this time the organization also joined the Better Films Council.

The following officers were elected: President-elect, Mrs. L. A. Lasher; first vice-president, Mrs. A. B. Miller; second vice-president, Mrs. Maxwell Lick; recording secretary, Mrs. C. R. Wood; corresponding secretary, Mrs. C. O. Peters; treasurer, Mrs. Cecil E. Ross. Mrs. F. B. Krimmel was installed as president.

A play review was given, after which tea was served.

Lackawanna.—On Apr. 9, the auxiliary entertained about 250 members and friends at a reading and tea in the lounge of the Chamber of Commerce. A business meeting preceded the tea. Plans for participation of many of the members in better food budgeting week were discussed. Mrs. J. D. Lewis is general chairman of the project and will be assisted by a large committee.

Mrs. Salo Friedewald gave a reading.

Lawrence.—The meeting of the auxiliary was held at the Castleton Hotel, New Castle, Jan. 3. Dr. William A. Womer gave an address on the medical relief work in the county. Tea was served. The following officers were elected: President, Mrs. S. W. Perry; first vice-president, Mrs. Earl F. Henderson; second vice-president, Mrs. Joseph F. Jenovese; secretary, Mrs. Eliah Kaplan; treasurer, Mrs. Edwin H. Willmarth.

Lebanon.—Reciprocity Day was observed Apr. 8, at the Woman's Club, Lebanon, when representatives of the medical auxiliaries of Dauphin and Lehigh Counties attended. Invitations were extended to 5 other near-by county auxiliaries, but due to the inclement weather these guests were unable to attend.

Many of the visitors spoke briefly of the various phases of the work of their organizations in their respective communities. Mrs. Jannetta Wirmer, of the local group, responded with an outline of the work of the Lebanon County organization.

State President Mrs. Laurrie D. Sargent was the guest speaker.

A musical program was presented, followed by a social hour with the serving of refreshments.

The March meeting was held in the dining room of the new Community Building at Hershey. The membership is 27.

Luzerne.—On Mar. 5, the auxiliary held their first annual ball, which was attended by several hundred members of the Medical Society, their wives, and guests.

On Mar. 20, the auxiliary held their second educational meeting at the Wilkes-Barre Institute. This year it was in the form of a social hygiene program and, as before, was open to the public.

Luncheon was served.

Dr. Valeria H. Parker of the American Social Hygiene Association was guest speaker; there were several hundred ladies present. Literature was distributed and an open forum was held. Other speakers were Dr. Peter P. Mayock, chief of the genito-urinary division of the State Department of Health, at Wilkes-Barre, and Miss Nellie G. Loftus, supervisor of the division.

Mercer.—On Apr. 17, the auxiliary gave a luncheon honoring the state president, Mrs. Laurrie D. Sargent, who delivered an address. District Councilor Mrs. James D. Stark, of Erie, was present.

There was instrumental music and group singing.

Montgomery.—The auxiliary held its regular meeting May 1, at the Plymouth Country Club. Luncheon was served.

The child health day feature was an informative talk on "The Child Health Program in the County," by Miss Helen Cole Carter, secretary to the Montgomery County Tuberculosis Society. Mrs. J. L. Eisenberg presided. Dr. J. Walter Stein, of Ardmore, requested a donation of money from the auxiliary to assist in the expense of printing a recently completed public health survey made in the county. The auxiliary approved a motion to grant such assistance if necessary.

Dr. Joseph E. Beideman, chairman of Public Relations in the County Medical Society, appealed to the auxiliary to protest against the Chiropractic Bill, No. 494, by writing or personally contacting the county representatives. The auxiliary went on record as opposing the bill and appointed Mrs. J. N. Hunsberger to write to all the state representatives from the county in the name of the auxiliary.

The annual picnic for members of the auxiliary and their families will take place on June 19 at Fisher's pool.

Philadelphia.—The activities of the auxiliary during the past season have been marked by unusual interest, enthusiasm, and success.

The attendance at the monthly meetings has been excellent, the largest attendance being 124 at the March meeting. This has been due largely to the excellence of the programs provided. The March Tea took the form of a birthday party in honor of the new members.

The programs were brought to a climax by the Fifth Annual Health Institute on Apr. 9. Delegates from all women's clubs and organizations in Philadelphia and surrounding counties were invited. There were 248 women present, representing 49 women's organizations and 10 hospitals.

A series of parties during the year for the benefit of the welfare work was marked by much enthusiasm and financial success. There were card parties at which homemade cakes and candy were sold, a white elephant sale, and an evening party. The men were invited.

The final meeting of the year was the annual luncheon held at the Bellevue-Stratford Hotel, at which the new members, officers, and committee chairmen were introduced, and plans were started for next year. The officers for 1935-1936 are: President, Mrs. Milton Fraser Percival; president-elect, Mrs. J. Allan Bertollet; first vice-president, Mrs. Curtis C. Eves; second vice-president, Mrs. William N. Bradley; treasurer, Mrs. Harry S. Bachman; recording secretary, Mrs. John Burkhardt, Jr.; corresponding secretary, Mrs. I. Rendall Strawbridge; and directors, Mrs. Edward J. Klopp, Mrs. Gordon J. Saxon, Mrs. George C. Yeager, Mrs. Fielding Otis Lewis, Mrs. Wilmer Krusen, and Mrs. Laura Gerhard.

At the convention of the American Medical Association at Atlantic City, the Philadelphia auxiliary gave a tea to the wives of the doctors attending the convention, at the Traymore Hotel, on June 11.

Schuylkill.—The auxiliary met at the Necho Allan Hotel on Apr. 9. Mrs. Rosa Santee, of Cressona, president of the auxiliary, presided.

Three new members were admitted; the enrollment now is 88.

Venango.—Twenty-two members and guests met Apr. 18. State President Mrs. Laurrie D. Sargent was guest of honor. There was vocal music, and tea was poured.

Westmoreland.—The meeting of the auxiliary was held Apr. 9 at the home of Mrs. D. Ray Murdock in Greensburg. An announcement was made to the effect that the Public Health and Public Relations committees were sponsoring a health meeting Apr. 25, 7:45 p. m., at the Sky Club in the Penn Albert Hotel, Greensburg, to be open to the public.

Dr. L. J. C. Bailey, of Greensburg, and Dr. Charles Smith, from Fayette County, spoke on Emergency Child Welfare Relief.

Tea was poured. Donations from this party amounting to \$21 were turned over to Dr. Bailey to be used by his committee.

Medical News

Births

TO DR. AND MRS. EARL H. GRIM, of Middletown, a son, May 7.

TO DR. AND MRS. JOHN N. BORBONUS, of Johnstown, a son, Apr. 10.

TO DR. AND MRS. MEYER L. NIEDELMAN, of Philadelphia, a daughter, Ruth Ann Niedelman, Apr. 22.

Engagements

MISS CLAUDIA VAN HORN BROWN, daughter of Dr. and Mrs. Claude P. Brown, and Mr. Frederick H. Wilson, all of Philadelphia.

MISS LILLIAN ROBELEN, daughter of Dr. and Mrs. C. H. Robelen, of Philadelphia, and Dr. Edwin D. Lunn, son of the late Dr. and Mrs. Edwin D. Lunn, of Houston, Texas. The wedding will take place on June 29, at the Providence Meeting House, Media.

Marriages

MISS VIRGINIA EVELYN GLAZIER to Dr. Clinton R. Coulter, of Parkers Landing, Pa., May 2.

MISS DELPHINE L. R. HOLLINGSWORTH, of West Chester, to Dr. Louis B. LaPlace, of Philadelphia, May 4.

MISS HELEN HAWKE, daughter of Dr. and Mrs. Wilfred W. Hawke, of Clifton Heights, Pa., to Dr. Thomas Archer Gibson, of Winchester, Va., May 4.

Deaths

EMERSON BOYNTON, Lancaster; College of Physicians and Surgeons, Baltimore, Md., 1897; aged 62; died Feb. 24.

HERMAN BURGIN, Philadelphia; Jefferson Medical College, 1879; aged 84; died Apr. 14.

THOMAS MCC. FADDIS, Charleroi; Jefferson Medical College, 1894; aged 70; died Mar. 21. Dr. Faddis was a member of the school board for many years.

BENJAMIN RUSH FIELD, Easton; University of Pennsylvania School of Medicine, 1883; aged 73; died May 1. Dr. Field was a well-known Shakespearean scholar and published a book in 1884 on "Medical Thoughts on Shakespeare," which passed through 3 editions. He was active in the National Guard of Pennsylvania, assisting in organizing a company in Easton at the outbreak of the Spanish-American War, being retired in 1908 as lieutenant colonel. Dr. Field was a member of his county and State medical societies and a Fellow of the A. M. A.

DELNO E. KERCHER, Philadelphia; University of Pennsylvania School of Medicine, 1895; aged 66; died recently. Dr. Kercher devoted his practice exclusively to obstetrics and gynecology. He left an estate of \$115,000, most of which is put in trust to constitute a loan fund for needy students who have completed at least 1 year at the University of Pennsylvania Medical School. He bequeathed \$2000 to the Methodist Hospital at which institution he was a member of the staff for more than 25 years, and \$2000 to the Aid Association of the Philadelphia County Medical Society. He was a member of his county and State medical societies, and a Fellow of the A. M. A.

CLARENCE E. KYLANDER, Pittsburgh; University of Pittsburgh School of Medicine, 1931; aged 35; died Apr. 24.

WILLIAM A. LYNOTT, Plymouth; Louisville (Ky.) Medical College, 1907; aged 55; died Mar. 28, in Scranton, of coronary sclerosis.

WM. JACKSON MERRILL, Philadelphia; University of Pennsylvania School of Medicine, 1902; aged 66; died May 10, of pneumonia, in the Germantown Hospital. Dr. Merrill, who was a captain in the Medical Corps during the World War, had a national reputation in the field of orthopedics. He was associate professor of orthopedics in the Graduate School of Medicine of the University of Pennsylvania. He was a member of his county and State medical societies, a Fellow of the A. M. A., and a member of the American Orthopedic Association and the American College of Surgeons. At the time of his death, Dr. Merrill was connected with Children's, Misericordia, Fitzgerald-Mercy, and Jewish Hospitals, and St. Edmond's Home for Crippled Children. He is survived by his wife and 2 sons.

HARRY EDWARD OESTERLING, Winter Park, Fla.; University of Pennsylvania School of Medicine, 1897; aged 62; died at the Graduate Hospital, Philadelphia, May 22, 1935, after a short illness. Dr. Oesterling did postgraduate work in Munich and Vienna. He began practice in Pittsburgh and later moved to Wheeling, W. Va., where he continued practice until a few years ago when he retired and moved to Winter Park, Fla. He was a member of the West Virginia State Medical Society; a Fellow of the A. M. A.; a member of the American Academy of Ophthalmology and Oto-Laryngology; and a Fellow of the American College of Surgeons. He is survived by his wife.

JOSEPH DINWIDDIE ORR, Leechburg; Jefferson Medical College, 1885; aged 77; died in the Allegheny Valley Hospital, Tarentum, May 1. Dr. Orr was the

founder of the Hyde Park Iron and Steel Company and promoter of the Pittsburgh and Allegheny Valley Street Railway Company. For many years, he was a surgeon for the Pennsylvania Railroad Company and a member of the Leechburg School Board, being its president for 9 years.

EUGENE O. PEARSON, Pittsburgh; Jefferson Medical College, 1900; aged 60; died Apr. 22. Dr. Pearson was a member of his county and State medical societies and the A. M. A.

COURTLAND F. QUINBY, West Grove; Hahnemann Medical College of Philadelphia, 1877; aged 78; died Jan. 11, of chronic nephritis and tonsillitis.

WILLIAM C. SEITZ, Glen Rock; Hahnemann Medical College and Hospital of Philadelphia, 1888; aged 70; died Feb. 4, of cerebral hemorrhage.

ALBERT CLEMENT SHUTE, Pottstown; Hahnemann Medical College and Hospital of Philadelphia, 1891; aged 67; died in March. Dr. Shute was on the staff of the Homeopathic Hospital.

MARCUS SPIRO, Pittsburgh; University of Pittsburgh School of Medicine, 1893; aged 68; died Apr. 21. Dr. Spiro was a member of his county and State medical societies and a Fellow of the A. M. A.

THOMAS W. SWALM, Pottsville; New York Homeopathic Medical College, 1878; aged 79; died Apr. 5.

CHARLES ARTHUR WALTER, Glenside; Jefferson Medical College, 1910; aged 52; died Apr. 25, of heart disease. Dr. Walter was a graduate of the Philadelphia College of Pharmacy. He is survived by his widow and a son. He was a member of his county and State medical societies and a Fellow of the A. M. A.

HARRY B. WALTER, Harrisburg; Jefferson Medical College, 1881; aged 80; died Apr. 25. Dr. Walter had been in active practice in Harrisburg for the past 54 years and for many years had served on the surgical staff of the Harrisburg Hospital. He was born near Greencastle (Pa.), and secured his premedical education in the rural schools, the Millersville State Normal School, and Gettysburg College. He was an affiliate member of his county and State medical societies and a member of the Harrisburg Academy of Medicine. He was a former city councilman and member of the Harrisburg School Board.

JOHN W. WARNICK, Johnsonburg; Western Pennsylvania Medical College, Pittsburgh, 1896; aged 71; died Apr. 12, of diabetes mellitus and complications following an illness of over a year. Dr. Warnick was a member of his county and State medical societies and a fellow of the A. M. A. He was at one time county medical director and for more than 20 years was a member of the board of health in Johnsonburg. He is survived by his widow, a daughter, and 3 sons, Dr. Julian R. Warnick and Dr. Richard D. Warnick, of Johnsonburg, and Dr. John W. Warnick, of Lakewood, Ohio.

C. WOODROW ZECH, a senior at Gettysburg College, and son of Dr. and Mrs. L. U. Zech, of York, died May 16, of heart disease; aged 23. He was hurrying to a class from his dormitory and collapsed at the entrance to Science Hall. A few minutes later he died in the college infirmary. He is survived by his parents, 2 brothers, and a sister.

Miscellaneous

RICHARD STEWART, son of Dr. and Mrs. H. M. Stewart, of Johnstown, is slowly improving from an operation for brain tumor, performed on Mar. 20, at the University of Pennsylvania Hospital, Philadelphia.

T. R. ANDERSON (colored), Philadelphia, was sentenced in Quarter Sessions Court, Philadelphia, Apr. 11, to serve from 1 to 5 years in the Eastern Peniten-

tiary for performing a criminal abortion and practicing medicine without a license.

THE EXAMINATIONS OF THE State Board of Medical Education and Licensure will be held on July 9 to July 13 inclusive. The written examinations will occupy the first 3 days and will be given in Philadelphia and Pittsburgh simultaneously. The bedside examination will be given on the last 2 days in Philadelphia only.

DR. ELLA B. CUSTER, who has practiced medicine for more than 50 years in Philadelphia, was designated the outstanding citizen of the twenty-first ward in 1934 with the presentation of a silver plaque by the Roxborough-Manayunk Lions Club, Feb. 25. The honor was the first of its kind and is to be an annual event.

ON MAY 2, the World War veterans made a formal request of the Federal Hospitalization Board for 10,000 more hospital beds than are now available for this group. The recommendations, in which the American Legion is interested, called for 187 more beds than would be provided by the projected program of the Veterans' Administration.

PRESIDENT ROOSEVELT, on Apr. 29, appointed Colonel Charles Ransom Reynolds, surgeon general of the United States Army, with the rank of major general. He also appointed Colonel Major Augustus Wroten Shockley, assistant surgeon general, with the rank of brigadier general. The new surgeon general is a graduate of the University of Pennsylvania School of Medicine, 1899.

ON APR. 17, THE TWELFTH ANNUAL Strittmatter Award of the Philadelphia County Medical Society was awarded to Dr. Charles W. Burr, professor emeritus of mental diseases at the University of Pennsylvania School of Medicine. At this meeting of the society a bronze tablet bearing the names of 3 benefactors of the county society was unveiled. They are Drs. Isidor P. Strittmatter, donor of the award, Dr. James M. Anders, founder of the library, and the late Dr. L. Webster Fox, who contributed to the support of the society. Dr. Joshua E. Sweet, New York, delivered the fifth annual John Chalmers Da Costa Oration on this occasion.

DR. CHEVALIER JACKSON, of Philadelphia, chairman of the Committee on Lye Legislation of the Section on Laryngology, Otology, and Rhinology of the American Medical Association, has sent out questionnaires to members of the A. M. A. requesting replies to the following questions:

1. How many cases of lye burns of the mouth or esophagus, or sequelae of such burns, have been under your care during the year 1934?

2. In how many of these cases did the accident occur during 1934?

Address your replies to Chevalier L. Jackson, M. D., Secretary, 3432 North Broad Street, Philadelphia, Pa.

OF THE 100 NEWLY ELECTED members to fellowship in the American Psychiatric Association at the annual meeting held in Washington, D. C., on May 15, the following Pennsylvanians are included. Drs. Leslie Robert Chamberlain, Danville State Hospital, Danville; Hamblen Cowley Eaton, Warren State Hospital, Warren; Roy Wilson Goshorn, Bellwood; Anna Fay Heflin, Philadelphia; Harland W. Long, Pittsburgh; Joseph A. Porter, Philadelphia; Lilla Ridout, State Hospital, Norristown; Ethel Clarissa Russell, State Hospital, Norristown; William Shapera, Pittsburgh; Albert Haeseler Super, Pottstown; E. Arthur Whitney, Elwyn Training School, Elwyn; and John I. Wiseman, State Hospital, Torrance.

BY COÖPERATION OF THE BOARD OF DIRECTORS, the medical staff, and the Ex-Residents Association of the Jewish Hospital of Philadelphia, a fund is being raised to establish a memorial at the Jewish Hospital in perpetuation of the memory of the late chief-resident physician, Dr. Edwin A. Jarecki. The care and disposition of this fund will be in the hands of a board of trustees,

consisting of 2 members each from the board of directors, the medical staff, and the Ex-Residents Association. The board from time to time will use the interest on the fund as grants to qualified members of the medical staff and ex-resident physicians for the investigation of approved scientific research problems.

Checks made payable to "The Edwin A. Jarecki Memorial Fund," should be sent to Mr. Alfred Mayer, administrator, Jewish Hospital, Philadelphia.

THE UNITED STATES CIVIL SERVICE COMMISSION has announced open competitive examinations for medical technicians.

Applications for positions of senior medical technician and medical technician must be on file with the U. S. Civil Service Commission, Washington, D. C., not later than June 24, 1935.

The entrance salary for senior medical technician is \$2000 a year and for medical technician \$1620 a year.

Optional subjects are (1) bacteriology, (2) roentgenology, and (3) bacteriology and roentgenology (combined). Specified experience is required.

Full information may be obtained from the secretary of the United States Civil Service Board of Examiners at the post office or customhouse in any city which has a post office of the first or the second class, or from the United States Civil Service Commission, Washington, D. C.

AT THE ANNUAL BUSINESS MEETING of the Philadelphia County Medical Society held May 15, the following officers were elected: President-elect, Dr. Francis Ashley Faught; vice-president, Dr. Louis H. Clerf; associate vice-presidents, Drs. Angelo M. Perri, L. Waller Deichler, William D. Baun, Matthew S. Ersner, and Joseph I. Levy; secretary, Dr. Henry G. Munson; treasurer, Dr. R. Powers Wilkinson; directors, Drs. William Egbert Robertson, George Morris Piersol, and William E. Parke; censor, Dr. Edward J. G. Beardsley; district censor, Dr. W. Wayne Babcock. Terms of office for all elected officers will begin July 1, 1935.

The following delegates were elected to the State Medical Society: Drs. Francis F. Borzell, George P. Muller, Ross V. Patterson, William E. Parke, Pascal F. Lucchesi, Nathan Blumberg, Harold F. Robertson, Charles F. Nassau, Miriam Warner, Edward W. Beach, Seth A. Brumman, Thomas R. Currie, and John T. Farrell.

THE FOLLOWING 6 PHYSICIANS were appointed as an advisory council of the George S. Cox Medical Research Institute for the study of diabetes, May 2, 1935. This institute is one of a group of related medical units affiliated with the University of Pennsylvania School of Medicine. The appointees are Drs. J. B. Collip, professor of biochemistry, McGill University, Montreal, Canada; George A. Harrop, associate professor of medicine, Johns Hopkins University School of Medicine; Elliott P. Joslin, clinical professor of medicine, Harvard University; Philip E. Smith, associate professor of anatomy, Columbia University School of Medicine; Rollin T. Woodyatt, professor of medicine, University of Chicago, and O. H. P. Pepper, professor of medicine, University of Pennsylvania School of Medicine.

The George S. Cox Medical Research Institute was established in 1932 and is supported by a fund provided in the will of the late George S. Cox, Philadelphia manufacturer and banker who died in 1926.

THE COMPLAINT OF "TOO MANY EMPTY HOSPITAL BEDS" is not reflected by the Scranton metropolitan area where a recent survey showed from 80 to 110 per cent bed occupancy during the past year. The latter figure was attained by the West Side Hospital of Scranton, which has been operating at over 100 per cent of its rated occupancy for several years.

Extensive plans are being made for hospital improvements in this district and in some instances are already

(Concluded on page xii.)

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Laryngoscope, 1935, XLV, 149-154★

SEE ALSO

Pharmacology of Inflammation: III. Influence of hygroscopic agents on irritation from cigarette smoke.

Proc. Soc. Exp. Biol. and Med., 1934, 32, 241-245★



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★★ Two packages of Philip Morris English Blend cigarettes. ☐

NAME _____ M.D.

ADDRESS _____

CITY _____ STATE _____

MEDICAL NEWS

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under way. It was recently announced that \$200,000 would be spent for additions to the Moses Taylor Hospital of Scranton, of which Dr. J. Norman White is chief surgeon and director. According to the plans, upon which work began in March, the connecting building in the rear of the administration section is to be razed and replaced by a new 3-story fireproof building. Each of the wings, now one story in height, will be converted into 2-story structures. Older units with frame interiors will be rebuilt, so that every part of the hospital plant will be of the latest fireproof construction. Provision will be made for 20 private rooms and 100 beds for general ward service. The Moses Taylor Hospital was long headed by the late Jonathan M. Wainwright.

With the federal government granting the state \$588,000 for the erection of a modern Scranton State Hospital to replace the present old and inadequate one, the state has allotted this sum to the Department of Welfare which, in turn, has allocated it to the local hospital. This sum, when it is made available to the state by the federal government, together with other funds for PWA projects in the state, will result in the razing of the present 2-story sections and their replacement by a modern 5-story building, increasing the present normal capacity of 188 patients to 250 patients. The building will have private rooms as well as modern medical and surgical wards for men, women, and children, maternity and pediatric wards. The general facilities of the hospital will be markedly improved by an increase in the size and equipment of the roentgenologic and pathologic departments, both of which have been found to be inadequate. Plans are also being developed for the opening of a psychopathic division.

Book Review

From a reviewer we expect information and advice which will guide us safely and to our profit, warning us of the poor, the mediocre, the commonplace, and inviting our attention to merit.

DISEASES OF THE SKIN. Richard L. Sutton, M.D., Sc.D., LL.D., F.R.S. (Edin.), professor of dermatology, University of Kansas, School of Medicine, and Richard L. Sutton, Jr., A.M., M.D., L.R.C.P. (Edin.), assistant in dermatology, University of Kansas, School of Medicine. With 1310 illustrations, and 11 colored plates. Ninth edition, revised and enlarged. C. V. Mosby Company, St. Louis. Price, \$12.50.

This excellent book might easily be referred to as "An Atlas of Skin Diseases" because of its numerous illustrations, many of which have been added since publication of the eighth or previous edition.

The subject of dermatology is presented in a clear and comprehensive manner, making the book a very valuable addition to the library, not only of the dermatologist but of the general practitioner as well.

Description of 33 new skin diseases with diagnosis and treatment has been added in this new addition.

The book is printed in large, clear type, and the subject matter is very systematically arranged. This ninth edition should meet with universal approval of the profession.

ACID ESSENTIAL TO LIFE DISCOVERED

Hitherto Unknown Protein Material Is Number 22 in List of Known Amino-acids in Body Proteins

The discovery of a hitherto unknown protein material in food absolutely essential to growth and life was announced.

(Concluded on page xiv.)

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ACID ESSENTIAL TO LIFE DISCOVERED

(Concluded from page xii.)

nounced by Dr. William C. Rose of the University of Illinois to the Federation of American Societies of Experimental Biology.

It is No. 22 in the list of the known amino-acids in the proteins of the body and No. 8 in the list of those that have been shown to be necessary to life. Scientifically its name is: *Alpha-amino-beta-hydroxybutyric*.

The newly found amino-acid was discovered, identified, and prepared synthetically by Dr. Rose and his associates, Dr. H. E. Carter, Richard H. McCoy, and Miss Madelyn Womack of the physiological chemistry staff.

Proteins taken into the body in such foods as meat, milk, and eggs carry the only type of nitrogen available to the use of the body. These proteins are changed, through the digestive processes, into amino-acids and the nitrogen fixed in these acids is absorbed by the body.

About 5 years ago, in attempting to learn which were necessary to life, Dr. Rose and his associates fed animals a mixture of foods containing no protein but to which had been added all of the 21 amino-acids then known. The animals receiving such a mixture declined rapidly in weight and eventually died, he explained. This was interpreted as indicating the presence in proteins of a hitherto unknown component which was essential to life. With that in mind a search began for the substance in question. The search was rewarded with the recent isolation of this new acid. When it and the 21 previously known ones are added to an otherwise normal diet, but one which lacks proteins, normal growth and weight are produced. This is the first time on record that animals have grown on mixtures of highly purified acids in place of proteins.

Dr. Rose is of the opinion that this discovery will make it possible to determine which of the 22 amino-acids present in proteins are necessary for life and which are nonessential. By the use of a diet carrying all, the amino-acids may be dropped out one at a time, and the effect of each upon growth accurately determined. This work is already in progress and will require possibly another 2 years for completion.

After that has been done, Dr. Rose and his staff expect to determine the quantity of all the amino-acids which are required for normal growth. It is probable, he thinks, that when such information has been obtained, it may prove to be of clinical value in that the essential amino-acids may be administered intravenously to patients who, because of stomach ulcers or other illness, are unable to consume food in the normal fashion. Experiments along this line are now being conducted.—*Science News Letter*, Apr. 20, 1935.

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HARRISBURG, PA., JULY, 1935

No. 10

THE EARLY DIAGNOSIS OF GLAUCOMA*

CHARLES NELSON SPRATT, M.D., MINNEAPOLIS, MINN.

In many respects primary glaucoma resembles cancer. Although there are many theories, the exact causes of these diseases have not been discovered. Both are insidious in their onset, and damage is done before the patient is aware of the seriousness of the condition. Untreated, one leads to blindness, the other to death. It has been said of cancer: "The easier the diagnosis, the worse the prognosis." This is also true of glaucoma.

In the past decade there has been much propaganda in an endeavor to educate the public to the importance of early diagnosis in cancer. It is equally important to emphasize the need of an early diagnosis in glaucoma. Too often patients are referred to the ophthalmologist for the removal of a cataract when the examination discloses the painful fact that the blindness is due to neglected glaucoma. Not infrequently the 2 conditions are present at the same time.

Who is responsible for the tardy recognition of this condition? In a former paper I called attention to this delay and stated that any one of 4 individuals may be to blame. (1) The patient, either through neglect or lack of intelligence, consults the ophthalmologist only when the vision is lost. (2) The refracting optician, whose training is such that he cannot be blamed for failing to recognize glaucoma. Frequent changes in glasses are made, and finally the patient is told that nothing further can be done to improve the vision. (3) The family physician, who may mistake the hazy, sclerosed senile lens for a cataract and ascribe the loss of vision to this opacity rather than to the underlying increased tension. He often advises delay until the cataract becomes ripe and ready for operation. (4) The ophthalmologist, who may fail to recognize the early or

preglaucomatous eye, as none of the usual textbook signs or symptoms of the disease are present.

Glaucoma was recognized by the ancient physicians, and the name is derived from the greenish appearance of the pupil, in contrast to the black pupil of optic atrophy and other fundus conditions or the gray pupil found in cataracts. McKenzie of Glasgow is credited as being the first (1830) to call attention to the increased hardness of the eye, but this is an error. The hardness was observed by R. Bannister in 1632. Von Graefe convinced himself that the increased pressure was not a complication of the disease, but the cause. Leber, in 1873, demonstrated the escape of fluid from the angle of the anterior chamber of the eye.

One of the older ophthalmologists has said: "Glaucoma is pressure, and pressure is glaucoma." The internist has theories to explain hypertension, and the ophthalmologist has theories as to the cause of the increased intra-ocular pressure. Grover Cleveland once said: "It is a condition that confronts us and not a theory."

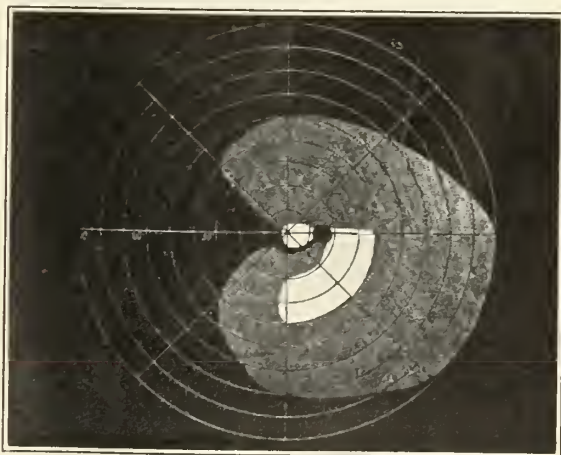


Fig. 1. Comma defect described by Bjerrum.

* Read before the Section on Eye, Ear, Nose, and Throat Diseases of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 2, 1934.

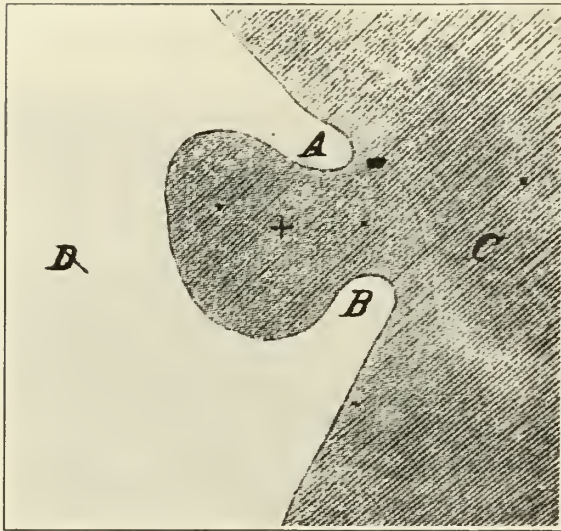


Fig. 2. Paracentral defect (in white) described by von Graefe.

Glaucoma is a complex process, but all the symptoms may be explained by the increase in pressure due to obstruction of the escape of fluid from the eye. There are, however, certain cases of glaucoma simplex without increased intraocular pressure. In practically all cases of glaucoma there is a blocking of the angle of the anterior chamber.

It is unfortunate that the average textbook description of the disease gives a picture of the acute or well-developed glaucoma rather than the onset. The pain, the ciliary congestion, the enlarged veins of the sclera and conjunctiva, the steamy appearance of the cornea, the shallow anterior chamber, the anesthesia of the cornea, the dilated pupil, the discoloration of the iris, the greenish appearance of the lens, the loss of accommodation, the pale disk with deep excavation, the arterial or more frequent venous pulsation,

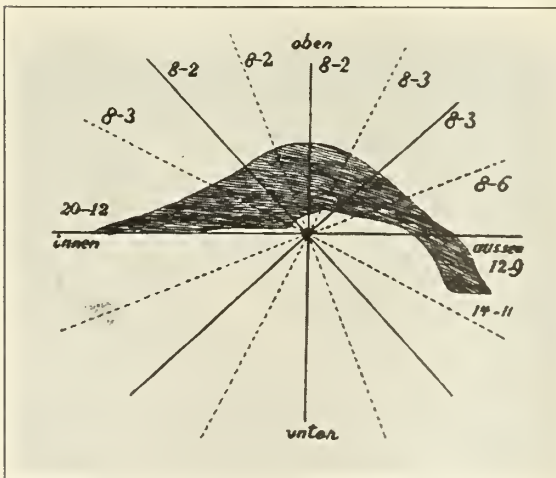


Fig. 3. Paracentral scotoma after Landeszberg.

the contraction of the visual field, and the halos about lights are all late signs and symptoms. When these are present, the diagnosis is easy but much of the vision or field may be lost. The disease must be recognized before these symptoms are present, as late operation offers little hope for improvement. The continued pressure causes destruction and changes in the optic nerve and other tissue of the eye. The vision is seldom improved by operation or treatment, although not infrequently there is enlargement in the fields, relief from pain, and a halt in the progress of the condition.

What are the early signs by which preglaucoma may be recognized? (1) All presbyopes, especially those with hyperopia, are to be considered as possible cases of glaucoma if, after proper correction with lenses, symptoms persist. In my experience, glaucoma has been twice as

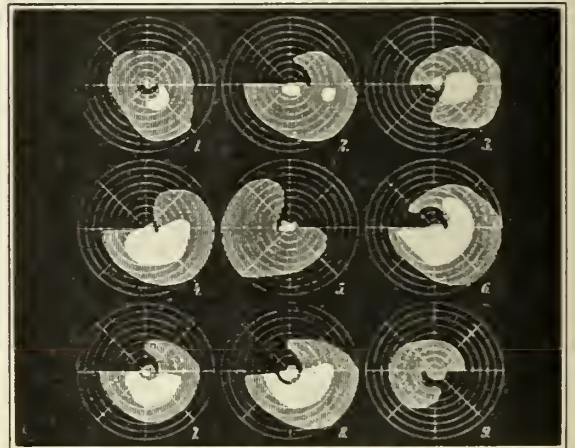


Fig. 4. Nasal step after Ronne.

frequent in women as in men; therefore, the former are always under suspicion and their complaints are carefully considered. (2) Patients who require frequent changes in their lenses are often preglaucoma cases. Care must be taken to rule out the senile swelling of the lens, diabetes, or general systemic conditions. (3) One of the early symptoms of glaucoma is nocturnal headache. This is explained by the fact that in the dark the pupil dilates, thus blocking the angle of the anterior chamber. Hypertension, nephritis, syphilis, arteriosclerosis, etc., are to be ruled out. (4) An early symptom is transitory blurring of the vision during close work even when a proper correcting glass is worn. (5) Frequently the statement is made that vision is reduced in a dim light and sudden change from light to dark gives rise to lowered vision. Derby has laid emphasis on this symptom as an early one in the diagnosis of glaucoma.

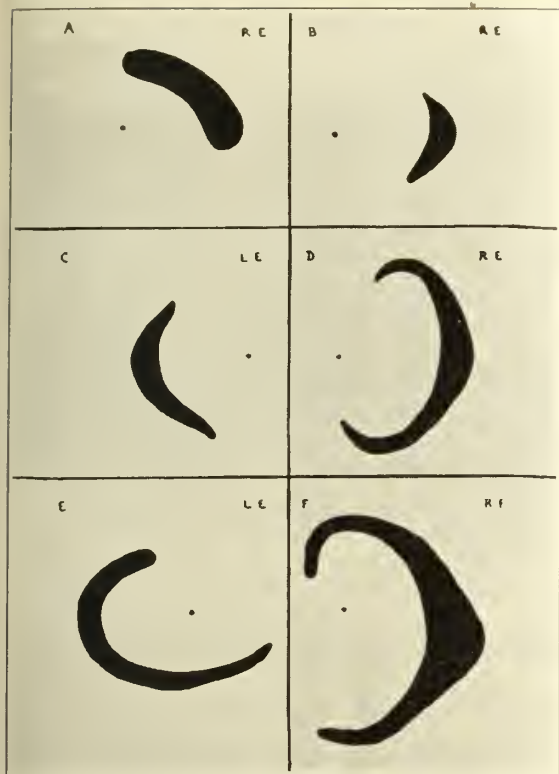


Fig. 5. Enlargement of Mariotte's spot—after Seidel.

Spaeth and Feldman have each devised clinical tests for determining this increase in the light minimum or threshold.

In addition to these symptoms, many patients show definite objective signs. (1) A dilated pupil with a shallow chamber should arouse the suspicion of the examiner. The shallow anterior chamber may be due to swelling of the senile lens, thus causing obstruction of the angle of the anterior chamber. (2) Reduction in vision when not due to errors of refraction, or to lens or fundus changes, should be thoroughly investigated. (3) Koeppel has described fine pigment deposits which are seen with the slit lamp on the posterior surface of the cornea, in the angle of the anterior chamber, and on the iris. These are early and frequent manifestations of glaucoma. (4) The tension may be increased but with good central vision. An eye with high normal vision is open to suspicion and frequent tests should be made, especially in the early morning and on different days. The drinking of several cups of coffee or confinement in a dark room as a provocative means to determine any increase in tension has been suggested. (5) Changes in the visual fields are probably the most characteristic of the early signs of preglaucoma. Credit is due to Bjerrum, who, in 1889, called attention to the necessity of examining the visual fields by the use of small

test objects, 1 mm. in size, on a screen at a distance of 2 meters. He described an early sign known as the comet defect or the Bjerrum paracentral comma scotoma.

It is interesting to note that, in 1869, von Graefe described the same condition as follows: ". . . finger-like spurs that enclose the fixing area by flowing together about the macula, thus giving rise to a paracentral scotoma."

Landesberg, in 1869, described a comma defect in a case of acute glaucoma following an injury. He failed to associate the blind area with the glaucoma.

Ronne, a pupil of Bjerrum, in 1909, described what is now termed the Ronne nasal step. This is best demonstrated on the perimeter with fairly large test objects, 3 to 10 mm. in size. This defect is more often above the horizontal than below. It is a late form of the Bjerrum comma scotoma. Lloyd states that Haffman, a pupil of Donders, in 1861, called attention to this defect.

The earliest change in the visual field is that described by Seidel in 1914. This is an enlargement of the blind spot, sickle or new moon in shape. Due to the distribution of the nerve elements on the temporal side of the retina, the Seidel defect becomes the Bjerrum or comma scotoma, and the third stage is the Ronne nasal step. The final stage is complete loss of visual field. Although these defects are characteristic of glaucoma, any condition which interferes with

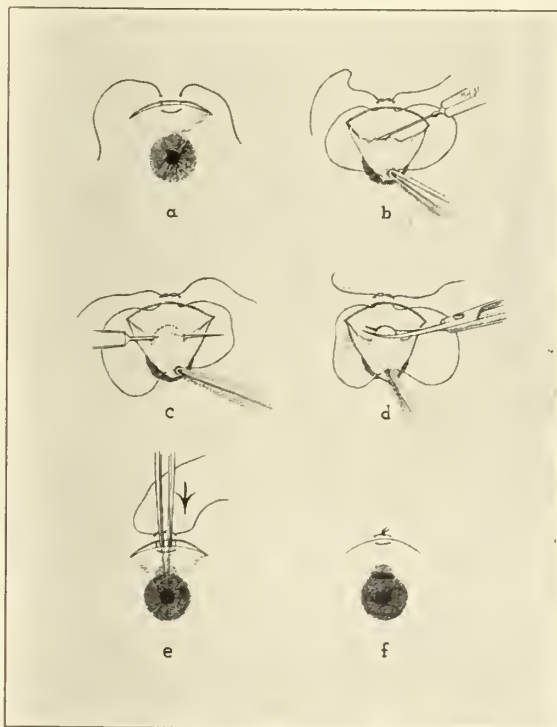


Fig. 6. Sclerecto-iridodialysis for glaucoma.

the integrity of the nerve bundles, *e. g.*, retrobulbar affectations of the optic nerve, embolism of the central artery, *etc.*, may give rise to similar fields.

Thomasson has advised the use of minute objects one-half mm. in size at a distance of 4 meters. These test objects subtend an angle of one-half minute or the distance between retinal cones.

When these changes are found in visual fields, even if pressure is not increased and vision is normal, the patient should be warned that he has a condition which is serious and must be under careful and frequent observation. Pilocarpine should be used at bedtime.

When it is discovered that central vision is failing, that there is an increase in the tension or a diminution in the field, miotics are to be dis-

continued. Operation for the relief of tension is imperative. Early operation offers the greatest chance for relief, as vision once lost is rarely regained.

The type of operation depends on the operator's experience. I began to do the Elliot trephination in 1912. Later the Lagrange operation seemed to offer certain advantages. Iridotaxis now seems to be gaining favor; Holth, Butler, Greenwood, Herbert, and many others have become converts to this operation. During the past 4 years I have done a combination operation of iridodialysis, as suggested by de Wecker in 1870, and a sclerectomy, as described by Lagrange in 1905. The dialysis frees the blocking of the iris angle better than does the iridectomy.

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CONCRETION OF THE LACRIMAL CANALICULUS*

WARREN S. REESE, M.D., PHILADELPHIA

This paper might have been more specifically entitled "Streptothrix Infection of the Lacrimal Canaliculus." The title given, however, conforms to the many similarly entitled papers in the literature.

The bacteriology of this affection seems to be in a rather chaotic state. The causative organisms have been designated as *Leptothrix*, *Streptothrix*, *Actinomyces*, *cephalosporiosis*, *Micrococcus tetragenus*, *etc.* Confusion arises from the fact that these organisms are not frequently seen and are difficult to culture; they are polymorphic so that one organism might be considered as 2; and, finally, they appear to defy classification, occupying a mid-position between bacteria and molds. Von Graefe considered the *Leptothrix* the causative organism and this view obtained until 1875, when Cohn called attention to the fact that unlike the *Leptothrix* the filaments of this organism branched and the characteristic iodine reaction was not obtained. He, therefore, considered it had to do with a special form which he named the *Streptothrix försteri*. Von Reuss and Goldzieher undertook a revision of the literature on the basis of Cohn's results and identified the older cases as *Streptothrix försteri*. In 1894 Schroeder and von Huth applied the name "actinomycosis" to the concretions on account of the presence in them of refractile bodies with knotted or clubbed processes.

Axenfeld believed that these organisms should be spoken of as *Streptothrices* unless we consider these latter as *Actinomyces*, thus permitting the term actinomycosis.

From the clinical standpoint little can be added to Axenfeld's description written more than a quarter of a century ago. According to him the earliest records of this condition are by Cesoni in 1670, Sandifors in 1779, and Desmarres in 1842. Albrecht von Graefe was the first to give a clear description based on 10 cases which he had observed. The affection manifests itself as a red swelling in the region of one of the canaliculi, usually the lower, accompanied by catarrhal symptoms. The swelling is never greater than the size of a hazel nut, and is generally less. It is in the form of an elongated, firmly resistant mass in the region of the canaliculus. Greenish or darkly stained contents of the canal may be pressed up to the punctum, which is often found to be dilated, but nothing can be evacuated except possibly a slight amount of pus. The passage into the nose may be open so that fluid can be washed through from the canaliculus. A perforating ulcer of the skin has never been observed. It is not known whether these cases would heal spontaneously as every case observed has been incised and evacuated with rapid and permanent healing.

When the canaliculus is opened in the usual manner, a peculiar mass either comes out at once or upon very slight pressure. Sometimes there

* Read before the Section on Eye, Ear, Nose, and Throat Diseases of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 2, 1934.

are several larger or smaller masses. The mucous membrane of the inflamed canaliculus is very much stretched, but its continuity is quite intact and the mass is nowhere adherent to it. The mass can be removed easily with any blunt instrument, and is only retained when the incision has been too small or the mucous membrane has developed side pouches. There is only a single case recorded in which a loose connection with the walls could be demonstrated (von Schroeder).

The material removed varies in amount from half the size of the lens to that of a bean. Its surface shows fine elevations and clefts at places, and has a waxy appearance. Its color is mostly grayish-green or grayish-yellow. Many concretions are brown or dark brown; these are older, harder, and less easily teased out than the more recent ones, which are very readily broken up into smaller fragments and can easily be squeezed out like wax between 2 cover-glasses. In some cases the concretions become calcified (A. von Graefe, Gruning). The mass of mold seems finally to die, when there is a calcareous body surrounded with débris (Snegirew, Capellini). In the sections a dendritic netlike structure is very evident, produced by radially arranged needle-shaped crystals; the most peripheral layers of the individual crystalline masses stain dark brown. The *Streptothrix* elements are no longer visible though the concretions probably develop on such an organic basis.

CASE REPORT

V. D., a female, age 52, appeared at the Wills Hospital clinic on Mar. 14, 1934. She complained of a growth on the left, lower lid which had not changed in size since its appearance 4 years previously. The growth became inflamed at times, and matter often collected at the inner corner of the eye.

Examination revealed normal vision in both eyes as tested with the illiterate chart. The external examination of each eye was negative except for the presence of a 4 to 5 mm. mass on the left, lower lid about 4 mm. below the punctum. Pressure on this mass caused a milky secretion to exude from the adjacent punctum. The skin overlying the mass was slightly red, but there was no tenderness.

The patient was ordered a wash and referred to the laboratory for examination of the material expressed from the punctum. A report was returned that a smear revealed great numbers of gram-positive cocci in pairs and some gram-positive cocci in chains, morphologically resembling pneumococci and streptococci respectively. There was a considerable number of gram-negative bacilli accompanied by spirilla, suggestive of Vincent's organisms, and in fewer numbers some gram-positive bacilloid *Vibrio* structures, possibly forms of a higher bacterium such as *Streptothrix* or *Leptothrix*.

The patient was admitted to the hospital, and on April 11, under ether anesthesia, an incision was made

into the tumor through the skin. A creamy pus was obtained, in the center of which was a fairly large concretion. The sac was swabbed with tincture of iodine. A diagnosis of *Streptothrix* was made from the smear. The gross specimen was sent to the laboratory; the report described it as resembling macerated vegetable pulp, mixed grayish-green and dusty russet-brown, waxy material with stony concretions throughout. With age it lost its color and became harder, being almost reduced to stony concretions. Growth on Zabara's medium was not secured. It was obtained in glucose bouillon, although a few days later this was completely outrun by the other invader, a short-chain pyogenic streptococcus.

The patient was discharged, being given a 1 per cent solution of potassium iodide to use as a wash. Since then she has returned to the clinic several times, has been free of symptoms, and we have been unable to express any secretion from the punctum.

Most of the cases of concretion of the lacrimal canaliculus have been reported abroad. In 1920 Nagel stated that 70 cases had been recorded, only 4 of which were from North America. Since then Shumway, Zentmayer, Parker, and others have recorded cases, in all 3 of which, curiously enough, the upper canaliculus was involved. The manner of infection is not known. The theory of its being an agricultural disease has not been established. Its frequency in women is remarkable, particularly since men are more prone to similar infections occurring in other parts of the body. Von Graefe concluded that the spores enter the canal from the conjunctiva because the concretions are denser and smoother towards the punctum and of a darker and more uniform color. This seems to be borne out by 2 cases in which one and then the other canaliculus became infected. Under the title of "Actinomyces of the Lacrimal Ducts," Robert states that most observers think that the infection occurs by contaminating dust lodging in the conjunctival sac whence it passes into the canaliculus. Stagnation of tears may favor infection as they furnish an excellent culture medium. It has been shown that the parasite grows well in water, also that it vegetates along with the ordinary bacteria on the conjunctiva. The reason that this infection is not more common may be due to attenuated virulence of the fungus from contact with the air, which Duclaux has shown has an unfavorable action on the parasite. It is also known that various bacteria found in symbiosis with *Actinomyces* have a destructive influence on the latter. The inability of the *Actinomyces* to develop in cultures in which other bacteria of secondary infection are growing demonstrates this fact.

Cappellini found the concretions to be calcium monophosphate and carbonate. According to

Robert they develop at those points in the lacrimal canal which are physiologically narrow.

In conclusion I wish to thank Dr. J. Milton Griscom for the privilege of reporting this case.

230 South Twenty-first Street.

ABSTRACT OF DISCUSSION

WILLIAM ZENTMAYER (Philadelphia): When I first saw the case reported by Dr. Reese and got from the patient the statement that the small tumor had been present for years, I immediately thought of a concretion in the canaliculus and suggested a microscopic study of the yellow secretion which could be expressed from the punctum.

The history of long duration and the clinical absence of inflammation, the site of the mass away from both the meibomian gland and the tear sac, the slow growth, and the thick yellowish discharge from the punctum, especially if seen in a woman, will point to the diagnosis.

The absence of external inflammation and ulceration is probably due, as Wissman has shown, to a chronic hypertrophic inflammation of the canaliculus.

My own case was that of a colored woman, age 56. There was a swelling the size of a peach kernel in the position of the upper canaliculus. It had been present for 2 years. A calculus was removed surgically. The stony mass was about 4 mm. in size. The surface was uniformly granular and homogenous in texture. The laboratory report indicated that it was composed of a dense felting of threads. A summary of the report follows:

"Cultural studies were fruitless in the aerobic and anaerobic containers, doubtless because the calculus had been kept dry for such a long time. There is no doubt, however, that this calculus was composed practically entirely of the threads of a *Streptothrix*, such as has frequently been described in this class of cases. With-

out cultural studies one is not free to state whether the organism belongs to the *Nocardia* or to the *Actinomyces*. If to the latter, there is little likelihood of stating that it is *Actinomyces bovis*. No arrangement into ray form was noted, but the writer is aware that when growing apart from solid tissues the latter organism will not exhibit such a form."

As there is a preconcretion stage it is well to have in mind the possibility of a fungus infection in all cases of long-standing unilateral discharge from the punctum without evidence of dacryocystitis.

James, of London, records a case in which the lower duct and conjunctiva had been treated for a long time in several clinics, the concretion in the upper canaliculus being overlooked.

As stated by Dr. Reese, most of the cases of concretion are due to *Streptothrix*.

In a search of the literature from 1909 to 1932, I found 32 cases of fungus infection of the lacrimal passages. Twenty were reported as due to the *Streptothrix*, 11 to the *Actinomyces*, and 1 to *Blastomyces albicans*. Wissman collected 38 cases in the literature up to 1901, 21 in women, 10 in men, and the sex not noted in 7.

As to the incidence of concretion in cases of dacryocystitis, in 50 cases Uhthoff found concretion in 2 per cent.

No one has solved the reason for the preponderance of at least 2 to 1 in the female sex. Feigenbaum had the thought that the *Streptothrix* might be transferred from the vagina, but in his case no association could be found. Furthermore, the *Streptothrix* is not normally found in the vagina.

Nearly all of the cases have been reported from Europe, and as women are employed largely in the fields there the preponderance of the incidence in women would not be against the condition being an agricultural disease. If a case is seen before a concretion is formed, irrigation of the lacrimal passage with a solution of potassium iodide will effect a cure.

THE INTERPRETATION OF IRREGULAR GENITAL BLEEDING DURING AND AFTER THE MENOPAUSE*†

FLOYD E. KEENE, M.D., PHILADELPHIA

From the age of puberty on, to bleed or not to bleed is the question about which center many of the mental and physical ills of womankind. An index of health, a frequent symptom of disease, bleeding from the female genital tract presents a problem the accurate solution of which is of vital importance to her health and happiness. During the menopause and after its establishment, this symptom is of particular significance. This discussion will consider the principles which underlie its interpretation. These remarks are based upon an analysis of the lesions responsible for bleeding in 2000 women

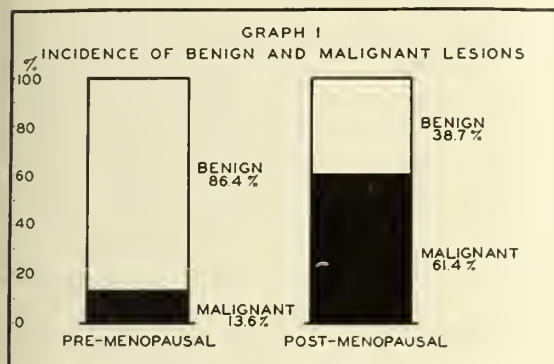
over age 40 who were admitted to our hospital service.

The causes of bleeding can be divided into 2 large groups, the functional and the structural. During the premenopausal years, functional disturbances due to impaired endocrine activity often find expression in abnormal bleeding. Even in the presence of organic disease such as uterine myomas, pelvic infection, and endometriosis, disturbed ovarian function may be the chief cause of irregular bleeding from the uterus. With cessation of ovarian function, which occurs after the menopause has been established, the structural factors alone are active and they often exist as degenerative processes, thus explaining the graver prognostic import of postmenopausal bleeding.

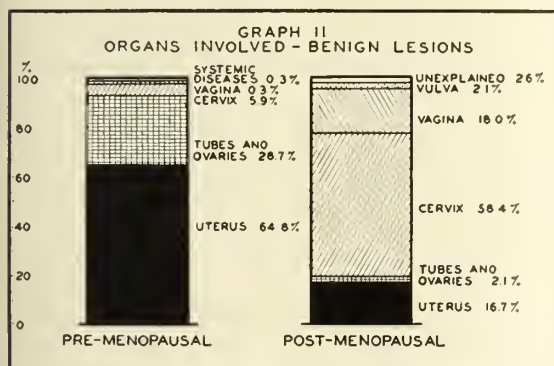
* Read before a General Meeting of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 3, 1934.

† From the Department of Obstetrics and Gynecology, University Hospital, Philadelphia.

In this series, 1398 patients were in the premenopausal group and 602 in the postmenopausal group. The incidence of benign and malignant lesions in the 2 groups affords a striking comparison.

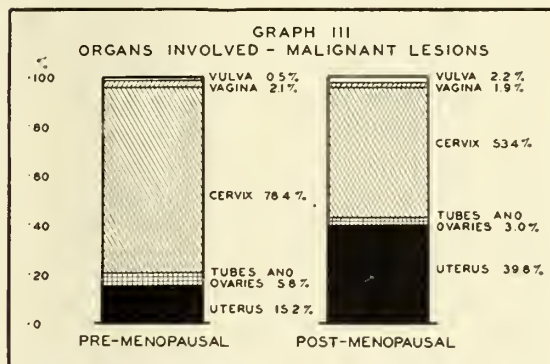


During the fifth decade of life, before or at the time of the menopause, the bleeding was of benign origin in more than five-sixths of the patients, and it was due to cancer in less than one-sixth. On the other hand, after the menopause, malignant lesions were responsible for the bleeding in nearly two-thirds of the patients. For obvious reasons, the incidence of malignancy in both groups is higher in hospital than in general practice, but this in no way detracts from the truth of the statement that irregular bleeding is often prophetic of cancer during the later years of the menstrual life and that, after the menopause, it is due to cancer in most instances.



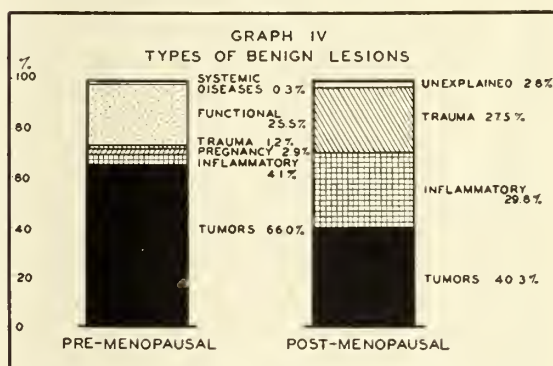
The location of the benign lesions responsible for the bleeding shows considerable variation in the 2 groups. In the premenopausal group, they were situated in the body of the uterus in two-thirds of the cases and in the tubes and ovaries in approximately one-fourth. Lesions of the cervix were relatively infrequent, and only rarely did bleeding originate from a vaginal defect. After the menopause, benign lesions of the cer-

vix and vagina were responsible for the bleeding in more than three-fourths of the patients. They were found in the body of the uterus in less than 17 per cent, and their occurrence in the tubes and ovaries became almost negligible.



In both groups, the malignant lesions were primary in the body of the uterus or cervix in more than 90 per cent. The incidence of cancer of the cervix was 5 times greater than that of the fundus in the premenopausal group, and there was also a high incidence of cervical cancer after the menopause. Cancer of the adnexa was not of common occurrence in either group, but these lesions should be borne in mind when the cause of bleeding cannot be located in the uterus or vagina.

Benign Premenopausal Lesions.—During the premenopausal age, abnormal menstruation is due to uterine myomas in more than one-half



the cases. The rôle played by neoplastic disease is still further increased by uterine polypi and, to a small extent only, by ovarian tumors. Next in order of frequency are functional endocrine disturbances, which produced irregular bleeding in one-fourth of the patients in this group. The high incidence of functional bleeding at this time of a woman's life is readily explained. The normal uterus bleeds only when activated by hor-

monal stimulation from the pituitary gland and the ovary. So long as the function of these glands is properly coördinated and synchronized, this stimulus recurs at regular intervals, resulting in periodic bleeding which we term normal menstruation. During the time when these glands, particularly the ovaries, are undergoing changes which will eventuate in the menopause, the uterus is subjected to a perverted hormonal stimulation with prolonged, profuse, or irregular bleeding as the natural sequence.

In only 4 per cent of the benign premenopausal group was the bleeding ascribed to an inflammatory process in the genital tract. Included under this heading are ulcerations of the vagina, erosions of the cervix with endocervicitis, and infections of the adnexa. Out of a total of 1207 benign cases, bleeding was due to an inflammatory lesion of the cervix in only 26. Although the incidence of bleeding from a cervical erosion is higher in practice outside the hospital, these figures substantiate the facts that benign erosions rarely bleed and that, in a woman of menopausal age, an erosion which bleeds is often malignant. That chronic endometritis is a rare condition is borne out by this study in that this diagnosis was not made in a single instance. The endometrial pictures found in many cases of functional bleeding were ascribed formerly to an inflammatory origin, but this conception has been discarded in favor of that attributing them to hormonal defects, inflammation playing no part whatever.

During the earlier decades, abnormalities of pregnancy, infection, or endocrine defects are the usual causes of irregular menstruation. After age 40, pregnancy and infection assume minor proportions, with tumor formations and endocrine defects in the ascendancy until ovarian function has ceased.

Under the heading of trauma we have included those patients in whom bleeding was due to decubitus ulcer of prolapsus or to other ulcerations of similar etiology. Before the menopause, such lesions are rarely the cause of bleeding.

Benign Postmenopausal Lesions.—Again neoplastic disease predominates, but its incidence is considerably less than in the premenopausal group. Of the 94 tumors, 5 were ovarian cysts, 53 were polypi, and 36 were myomas. Premenopausal bleeding is due to myomas in over 60 per cent of the patients while after the menopause this incidence falls to 15 per cent. The development and growth of a myoma are dependent upon ovarian function. Conversely, regression and often complete disappearance of

these tumors occur with cessation of this function, and myomas never develop in a normal uterus after the menopause. The postmenopausal myoma is a heritage from the years of ovarian activity, and for one reason or another its complete regression has not followed termination of this activity. Such tumors are poorly nourished, making degeneration of varying degrees common. These facts are important in their bearing upon the production of bleeding by myomas before and after the menopause. Prior to the menopause, the bleeding is, in large measure, nothing more nor less than an expression of ovarian activity modified by the presence of a mass in the uterine wall which increases the blood loss by inducing a local venous congestion. In other words, the bleeding is physiologic rather than pathologic in origin, ovarian function being the essential factor. In bleeding from the myomatous uterus after the menopause, the reverse is true: here ovarian function no longer plays a part, and extensive degenerative changes in the tumor itself, the projection of the tumor into the uterine cavity, or associated malignancy in the uterus, tubes, or ovaries are the usual causes.

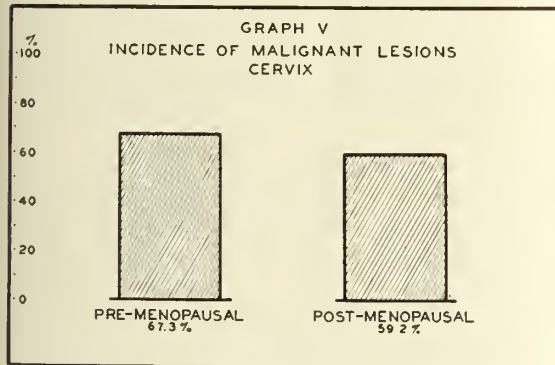
Physiologic atrophy of the pelvic organs after the menopause renders the vagina, cervix, and uterus susceptible to infection and slight trauma, and these 2 processes alone or in combination are the most frequent causes of benign postmenopausal bleeding. Of the inflammatory lesions, atrophic vaginitis predominates. Less commonly, bleeding is due to a cervical erosion, which may present minute areas of ulceration, stenosis of the cervical canal, and senile endometritis. The thin epithelial covering of the vagina, cervix, and urethral mucosa is easily abraded; hence, in prolapse of these structures, bleeding is a common symptom. These lesions of themselves are of but minor importance, but they assume a serious aspect in that they may mask the presence of a cancer in the uterus or adnexa.

Occasionally, careful investigation, including examination under anesthesia and curettage, fails to reveal the cause of bleeding from the postmenopausal uterus. This series includes 6 such examples. In 2 patients, the endometrium showed hyperplasia which, according to the prevailing conception, is due to persistent stimulation by the follicular hormone of the ovary. This rejuvenation of an atrophied, functionless ovary during the postclimacterium is of biologic interest, and the possibility of its occurrence seems to be proven by clinical as well as experimental evidence. However, this diagnosis is seldom warranted; the more likely explanation is that a small area of fundal cancer has escaped

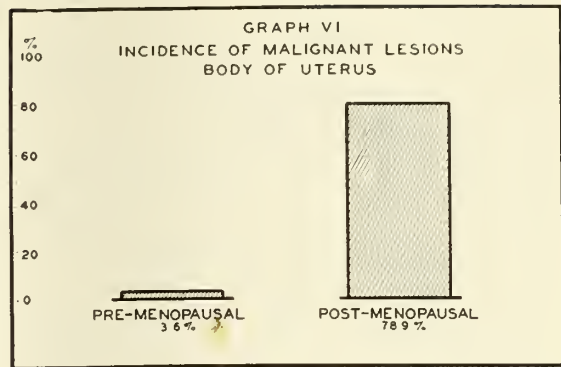
the curet or, if hyperplasia of the endometrium is present, that the underlying lesion is a granulosa-cell cancer of the ovary, which characteristically activates the endometrium by the follicular hormone which is elaborated by the tumor cells.

Certain characteristics of the bleeding may be valuable in determining the nature of the causative lesion. Bleeding during the menstruating age is most commonly of benign structural or of functional origin. Menorrhagia with no suggestion of bleeding during the intervals between periods is never of malignant origin, and it is a common symptom of both myomas and functional disturbances. The situation is different, however, in the presence of intermenstrual bleeding, which is always a danger signal since malignant as well as benign lesions produce this type of bleeding. Differentiation between the 2 is impossible by the character of the bleeding alone. Cancer of the fundus is uncommon prior to the menopause, but its presence should be suspected when metrorrhagia is a symptom.

Since the cervix and the body of the uterus are the usual sites of both benign and malignant lesions responsible for premenopausal and postmenopausal bleeding, the relative incidence of the 2 lesions in each location is of prime importance in evaluating the significance of bleeding from either of these areas.



Both before and after the menopause, more than one-half of the cervical lesions were malignant. Many benign lesions of the cervix can be cured by office treatment; hence, these percentages obtained from a study of hospital patients do not portray the true relative incidence of benign and malignant lesions encountered in general practice. However, they do emphasize the fact that a cervical lesion which bleeds is probably malignant, and this must be determined definitely by microscopic examination of the suspicious area.



A different picture is presented by an analysis of the types of lesions situated in the body of the uterus. Prior to the menopause the incidence of malignancy is less than 4 per cent while in the postmenopausal group approximately 80 per cent of the lesions which cause bleeding are malignant. The frequency with which postmenopausal bleeding from the uterus is due to cancer is still further increased when similar lesions of the adnexa are added.

CONCLUSIONS

The outstanding facts afforded by this survey can be summarized in the following conclusions:

1. The lesions which produce bleeding from the genital tract just prior to or during the menopause are benign in more than five-sixths of the cases. After the menopause, nearly two-thirds of the lesions are malignant.

2. The benign lesions which produce premenopausal bleeding are located in the body of the uterus in two-thirds of the cases and in the tubes and ovaries in one-fourth. Benign cervical and vaginal lesions are comparatively infrequent causes of bleeding at this age.

3. After the menopause, more than one-half of the benign lesions are cervical and those of the vagina rank second in order of frequency. The incidence of benign lesions in the body of the uterus drops to less than 17 per cent.

4. Before the menopause, the malignant lesions of the genital tract are primarily cervical in more than three-fourths of the patients. Although carcinoma of the fundus is essentially a disease of more advanced age, its incidence in the younger group is nearly 17 per cent of the total number of malignant lesions. Less than 10 per cent of these lesions are found in the adnexa, vagina, or vulva.

5. After the menopause the cervix is less frequently the site of cancer, but in this series more than one-half of the malignant lesions developed here. The incidence of fundal cancer shows a

marked increase at this age, rising to nearly 40 per cent. The remaining 7 per cent of the malignant lesions are about equally divided between the cervix, vagina, and adnexa.

6. Prior to the establishment of the menopause, benign lesions which cause bleeding are of a neoplastic or functional nature in over 90 per cent of the patients, the neoplastic predominating. Irrespective of the type of lesion, ovarian dysfunction plays an important rôle.

7. After the menopause, the great majority of the benign lesions which produce bleeding are due, in large measure, directly or indirectly to the physiologic atrophy of the genital organs, incident to cessation of ovarian function. In this category fall the inflammatory and traumatic lesions of the vagina and cervix, and degeneration of uterine myomas.

8. Both during and after the establishment of the menopause, lesions of the cervix which cause bleeding are malignant in a high percentage of cases.

9. Of the lesions in the body of the uterus which produce bleeding prior to the menopause, less than 4 per cent are malignant. After the menopause, nearly 80 per cent of such lesions are malignant.

10. Postmenopausal bleeding from the uterus may be of endocrinic origin, but this is a rare occurrence. Such a diagnosis is warranted only

after exhaustive examination has eliminated the presence of organic disease, particularly cancer.

133 South Thirty-sixth Street.

ABSTRACT OF DISCUSSION

JOHN A. MCGLINN (Philadelphia): The problem of malignancy has not been solved. It is obviously true that all efforts to control malignancy of the pelvis by prophylactic means have failed, and that the incidence of cancer of the pelvis is higher than it was 20 years ago. It is the great problem facing gynecologists today and the great problem of women in the late period of life. It is the disease which causes bleeding at this particular period. The lesson to be learned from this study is that, if a woman bleeds in the menopausal age, we are never justified in assigning any other cause until we have established that it is not due to cancer.

The great danger arising at the present time, which may delay early diagnosis, is this: During the past few years, with the tremendous strides made in endocrinology and the exploitation of many endocrine products in the treatment of these patients, there is a tendency, when a woman bleeds, to give her anterior pituitary extract to control the bleeding, without making the proper investigation to determine whether the bleeding is due to a cause benign in nature or to malignancy. We must always be on our guard against irregular bleeding, for, whether it is a few drops or more abundant, it spells cancer until cancer can be absolutely eliminated as the causal condition. The time to diagnose cancer is in its very early stages, and bleeding is the one thing which gives a clue to this condition. Bleeding during the menopausal age must be diagnosed early if the patient is to be helped in making any headway in the control of this condition.

FRACTURES AND DISLOCATIONS IN THE REGION OF THE ELBOW*

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Fractures of the lower end of the humerus are seen frequently in children but less so in adults. The knowledge of the anatomy of the elbow joint, the bony landmarks, the measurements, and all the stages of epiphyseal development is essential for an accurate diagnosis. It is important that the carrying angle, the causative reasons for ischemic paralysis, and the nerve and vessel injuries be kept in mind. The normal outline as shown by the roentgenogram should be carefully studied in all children and adults. The more accurate the diagnosis is, the more efficient the treatment and the better the end results will be.

Fractures and dislocations of the elbow are: (1) Supracondylar (transverse fracture of the lower shaft of the humerus); (2) fracture of the internal epicondyle; (3) fracture of the internal condyle, including its trochlear and epi-

trochlear portion and entering the joint; (4) fracture of the external condyle, including the capitellum and epicondyle and entering the joint; (5) separation of the lower epiphysis of the humerus; (6) T fracture into the elbow joint; (7) dislocation of the radius and ulna; (8) fracture of the olecranon process of the ulna; (9) dislocation of the radial head; and (10) fracture of the head and neck of the radius.

TREATMENT

Treatment of fractures about the lower end of the humerus is as follows:

Supracondylar fracture.—A fracture about the lower end of the humerus should be reduced at once. The quickest and best way to reduce the swelling of a joint and return it to normal is the proper anatomic reduction of the displaced bony fragments. The patient should be given an anesthetic and the reduction controlled under the fluoroscope. The commonest elbow fracture is

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FIG. 1 (a). Shows the method of reduction of supracondylar fractures of the humerus. These fractures are best reduced by making energetic traction on the pronated forearm and not on the supinated forearm as Fig. 1 (b). Owing to the trauma to the supinator and pronator muscles, these muscles are in spasm. The supinator muscles are stronger than the pronators. Due to this intricate muscle mechanism, the muscle pull on the distal fractured piece brings it into a varus position. This latter condition is overcome by pronating the forearm, thus relaxing the pronator muscles and putting the joint in the mid-position.

the supracondylar, and it is usually in the flexed and varus position.

The reduction of the supracondylar fracture is accomplished as follows: With the lower end of the humerus firmly grasped in the left hand, the existing deformity is exaggerated, the fragments are unlocked, and while energetic traction is made on the pronated forearm, which relaxes the pronator muscles, the varus position is reduced, and the edges are made to slide by each other. As the lower fragments slide forward, the blood vessels and nerves are freed and the elbow is hyperflexed. Thus to reduce the supracondylar type of fracture, flex the elbow to a right angle, pronate markedly the forearm, and exert longitudinal traction. Figs. 1, 2, 3, and 4 illustrate the methods of reduction and dressing of the elbow.

In the after-treatment of a supracondylar fracture, observe carefully the circulation, any blueness of the fingers, swelling, numbness, or decrease in the radial pulse, or any chapping at the bend of the elbow. It may be necessary to loosen the bandage and lessen the degree of flexion of the elbow. See the patient at least every day for the first 5 days. After the above precautions have been taken, there is no particular after-treatment. These patients do better out of bed. After the elbow is reduced and held in the hyperflexed position about 10 days to 2 weeks, slowly allow the elbow to deflex (Fig. 5), and start gentle active movements. Early massage and passive movements are harmful and lead to stiff joints.

An old unreduced supracondylar fracture may require an open operation.

Fracture of the internal epicondyle.—If this fracture is small, it is of little consequence. At times a fragment, with the ulnar nerve, is carried into the joint. An open operation is indicated. The fractured fragments are removed or fixed in place.

Fracture of the internal condyle, including the trochlear and epitrochlear processes.—If a large fragment is broken loose, it causes an adduction deformity with a diminished carrying angle or gunstock deformity. The fragment is displaced upward. It is generally possible to manipulate the fragment into position by hyperflexion. Unreduced fractures of the internal condyle are more disabling than those of the external condyle.

Fracture of the external condyle, including the capitellum and epicondyle and entering the joint.—The fragment is usually displaced downward and forward. There is an increased carrying angle. Treat by hyperflexion. Saucer-shaped fractures of the capitellum must be treated by open reduction. The failure to reduce the displaced capitellum means a change in the carrying angle and limitation of motion.

Separation of the lower epiphysis.—This is best treated in the hyperflexed position, the same as for a supracondylar fracture.

T fracture into the elbow joint.—This fracture as a rule is treated and the fragments are best held reduced in the hyperflexed position.



FIG. 2. Shows the application of the zinc oxide adhesive plaster, after the elbow has been reduced and hyperflexed. Note the dressing at the bend of the elbow, to avoid chapping.

A perfect result is likely, following the careful treatment of fractures of the elbow in childhood. There is usually no valgus or varus deformity. Fractures into the elbow joints of adults have given relatively poor functional results in the past.

Dislocation of the radius and ulna.—There is a loss of the 3 bony points of the elbow and shortening of the forearm. Reduction is accomplished by completely extending the forearm, thus freeing the coronoid from the olecranon fossa and the posterior surface of the humerus, by direct traction, and then by flexing. Keep the elbow at 80° , with the forearm supinated in a plaster-of-paris cast for one week, then start gentle active motion. Myositis ossificans is usually seen following posterior dislocation of the elbow.

Fracture of the olecranon process of the ulna.—The treatment depends upon the amount of displacement. If the fracture is minor, the arm can be put at right angles. If there is wide supination, put the arm in complete extension. If the separation is marked, an open reduction

may be indicated. The results from this type of fracture are generally good.

Dislocation of the radial head.—This takes place in children under age 5. It is sometimes mistaken for a fracture of the radial head or a sprain of the elbow.

Fracture of the head and neck of the radius.—The types of injury under this category include epiphyseal fracture of the upper end of the radius, fracture of the radial head without displacement, fracture of the radial head with displacement, fracture of the radial neck with displacement, and fracture of both the head and neck.

Do not be in a hurry to operate on fractures of the head and neck of the radius, because the functional results after operation are relatively poor.

COMPLICATIONS OF FRACTURES ABOUT THE ELBOW

The main complications are nerve and blood-vessel injuries, myositis ossificans, and Volkmann's ischemic paralysis.

The radial nerve rides astride on the sharp upper edge of the lower fragment and is here compressed. The compression disappears if the



FIG. 3. A muslin bandage modified into a sling.



FIG. 4. A swathe of muslin bandage concludes the dressing. The elbow is held in the hyperflexed position for about 10 days to 2 weeks, then the elbow is gradually deflexed daily (fig. 5). After a week, all the dressings are removed and gentle *active* movements are outlined.

fragments are reduced and the forearm pronated. There may be recent or remote ulnar paralysis. The late ulnar paralysis may follow an old injury to the internal condyle with cubitus valgus years after the accident.

Myositis ossificans is the term applied to a mass formation of bone tissue in the muscle tissue. It is due to the stripping of the periosteum from the bone or bony fragments. It is usually seen following posterior dislocation of the elbow and is frequently found in the belly of the brachialis anticus. After attaining its maximum size it remains quiescent, gradually subsiding, and at times disappearing completely. The tumor is to be differentiated from ossifying periosteal sarcoma or hematoma. The best treatment is rest of the part. If the tumor is removed, the removal should take place about one year later when the lump has subsided. Otherwise there will be renewed bone formation.

Volkman's contracture is a complication of the elbow-joint fracture, which follows the application of too tight a dressing, splint, or cast.

There is a contraction or flexion of the fingers and wrist, which comes on rapidly, with loss of power in the muscles of the forearm, usually following injury to the region of the elbow or forearm in young children. The theory is that the vascular supply is interfered with and the muscle tissue dies, leaving a cicatricial-like tissue in its place. Cases of Volkman's contracture may occur in cases in which no splint has been used and following thrombosis of vessels. If the dressing is too tight, the damage is done in 2 or 3 days. Ischemic and nerve injuries may occur at the same time. The latter are noted later. In ischemic paralysis the electrical reactions are normal. The contractures following anterior poliomyelitis and spastic paralysis should be borne in mind and not confused with Volkman's contracture.

The reason for Volkman's contractures occurring only in children is to be explained by the fact that fractures from a fall on the over-stretched arm take place very rarely in adults. In adults the same mechanism of accident brings about a dislocation of the elbow. Volkman's



FIG. 5. Deflexion of the elbow.



FIG. 6. Fracture of the lower end of the humerus in a boy, T. G., age 10, before being treated by hyperflexion.

contracture is more frequently seen after supracondylar than any other fractures.

CONCLUSIONS

1. Anatomic reduction of fractures in the region of the elbow is essential.
2. Early massage and passive movements are harmful and lead to stiff joints.
3. A good result is likely following the careful treatment of fractures in the elbows of children.
4. Fractures into the elbow joints of adults give, as a rule, relatively poor functional results.

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ABSTRACT OF DISCUSSION

H. ALEXANDER SMITH (Wilkes-Barre): I agree with Dr. Mooney's method, as the treatments are correct. In regard to the roentgenograms, it is very important to see that the reductions are correct. Always make it a rule to have the roentgenologist take a picture after the dressings are applied.

In supracondylar fractures of the elbow joint it is possible to put the arm in the proper position imme-



FIG. 7. Film of T. G., 9 months after closed reduction.

diately and obtain a good radial pulse, but the patient should be seen soon afterward. Every patient should be seen within 12 hours if possible, and certainly within 24 hours. The pulse should be carefully watched. Sometimes the day after reduction of the fracture there is a decrease in the radial pulse. Fractures about the joints, particularly the elbow, are emergency fractures. If you wait a day or 2 and then make an attempt to reduce the fracture, the arm cannot be flexed completely. There is so much swelling in the average case that the arm cannot be flexed completely and reduction maintained. If it is flexed and lowered again so that it is at a right angle, there will be a posterior displacement of the right lower fragment. The arm should be elevated, the swelling eliminated as soon as possible, and then brought forward as Dr. Mooney has described. If it is placed in complete flexion, there will be a good reduction, which should secure proper hyperflexion.

With regard to the condyles, the fracture should be reduced early. If seen early usually the condyles can be manipulated into position. The internal condyle fracture may cause a nerve lesion, and if reduced early nerve pressure will be obviated.

In treating the olecranon I am very conservative for 4 or 5 days. If bony crepitation is obtained after the acute swelling subsides so that the fragments can be coaptated, the treatment should be continued that way. If there is no bony crepitation, I operate. If there is to be a disability of the elbow it is better to have disability from a right angle than in extension as flexion is more important in feeding and dressing one's self.

INDICATIONS FOR ENTEROSTOMY WITH SPECIAL REFERENCE TO TECHNIC*

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Advocates of the operation of enterostomy recognize its life-saving possibilities, while opponents claim that it is harmful and unnecessary. It is not claimed that enterostomy is a panacea for all types of distended abdomens. The limitations of its use are easily recognizable, and the indications for its employment are definite whether as a primary, a complementary, or a feeding procedure. Its success depends upon its early employment and a technic which is simple

and easy to carry out. The technic should also prevent contamination and the formation of a permanent fistula. An attempt will be made in this paper to show the limitations and the indications for the operation, and to outline a simple and satisfactory technic with after-care.

The operation of enterostomy as it was first performed was a formidable procedure. It was used only as a last resort and usually for some type of acute intestinal obstruction. In practically all cases a second operation was necessary to close the resulting fistula. A patient who survived the first operation had yet to face the risk

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of having the fistula closed. It was natural, therefore, to exhaust all other means of relief before resorting to enterostomy. We now hold opposite views. A rubber tube can be sutured into the intestine safely and the coil of intestine replaced into the abdomen. The opening will heal after the tube is removed if the technic is correct. Realization of this fact is the crux of the matter in regard to spontaneous healing and is one of the most valuable observations in modern abdominal surgery. It has made the operation of enterostomy a real life-saving measure.

ACUTE INTESTINAL OBSTRUCTION

Intestinal obstruction is one of the commonest and most dangerous conditions a surgeon encounters. To evaluate the benefit of enterostomy we must divide the condition into 2 types. The first type is the simple and postoperative, and the second is due to strangulation. In the first type the toxemia is not very great during the first 24 to 48 hours, while in the second the toxemia may be marked in 6 to 8 hours after the onset of symptoms. Should the simple and postoperative obstruction be allowed to continue, the blood supply to the intestine will be interfered with by the distention and should then be classed with the second type.

It is in the immediate postoperative type of obstruction that enterostomy plays its greatest rôle. The onset of symptoms does not appear usually until at least 48 hours of the patient's convalescence have passed. Vomiting beginning after a few days of normal convalescence, accompanied by pain of a paroxysmal character, should arouse suspicions of obstruction at once. The abdomen becomes distended and on auscultation the characteristic sounds of trapped gas are heard. Enemas, either simple or compound, give no relief. At this time interference should be decided upon, for procrastination usually proves fatal. The obstruction is due to a coil of intestine becoming adherent to a raw surface by plastic exudate and kinking itself. It is not necessary to subject this patient to the shock of opening the original incision and handling the intestine to find and release the obstruction. An enterostomy under local or ethylene anesthesia can be performed through a small rectus incision without affecting the patient's condition. As a rule, in 3 to 4 days the intestine will straighten itself as a result of the deflation, the tube may be clamped, and the intestinal contents pass by the point of obstruction. After the patient has had 1 or 2 normal bowel movements, the tube may be removed, usually within 7 to 10 days after the enterostomy.

Should the obstruction be due to a fixed point or band of adhesions resulting from an operation performed some months or years before, the problem is a little different. If the patient's condition will not warrant releasing the obstruction, then duodenal suction syphonage through a Levine nasal tube should be instituted and saline in large quantities be given either subcutaneously or intravenously. If any signs of improvement are noted, an enterostomy should then be performed. A fair percentage of cases will improve sufficiently to allow a laparotomy later.

Since the toxemia from obstruction due to a strangulation is so great, early diagnosis and operation are necessary to reduce the mortality. The toxins from the contents of the strangulated segment become more and more lethal as the hours pass. Enterostomy in these cases offers very little help. It is necessary that the contents of the strangulated segment be eliminated by direct attack on the obstruction. Resection usually is necessary. Volvulus, intussusception, mesenteric thrombosis, and the simple obstructions if the distention interferes with the blood supply fall in this group of cases. In rare instances an enterostomy may save a patient by bringing about sufficient improvement to permit a later attack upon the obstruction.

LOCAL PERITONITIS

Local peritonitis is often the cause of acute intestinal obstruction. This is particularly true after the removal of a gangrenous appendix or a pelvic gynecologic operation. A coil of intestine either becomes adherent to the infected area or forms a part of nature's protective wall and becomes kinked. In these cases the operative area should never be attacked to release the obstruction. An early enterostomy should be performed through a separate incision under local or ethylene anesthesia. At the time of operation, in many cases of gangrenous appendix or pelvic infection, the terminal ileum is found to be adherent. The walls may be edematous and thickened. A complemental enterostomy done at the time of operation is likely to bring about a smooth and uneventful convalescence. In the case of a patient with a gangrenous appendix, an enterostomy may be performed safely at the time of the appendectomy with a separate set of instruments and through a separate incision on the opposite side. In pelvic cases an ileostomy 18 to 20 inches away from the ileocecal valve may be done and the tube run through a stab opening in the abdominal wall.

ADYNAMIC ILEUS

Adynamic ileus presents a rather perplexing problem. The symptoms usually begin immediately after operation. Rough handling or chilling of the intestine, the use of too hot laparotomy packs, and poor anesthesia have been given as the cause. The mortality rate is 1 to 2 per cent.

Continuous duodenal suction syphonage through a Levine nasal tube as suggested by Wangenstein has proved to be a valuable procedure. We have employed it with success in about half of our cases of ileus and believe that in this condition it has its greatest field of usefulness. Hot stupes to the abdomen and enemas may be tried. Eserin and pituitrin are used by some, but we have had no success with them in our clinic. These remedies should not be relied upon too long, preferably no longer than 24 to 36 hours. Should the relief measures described above fail, we employ a method of spinal anesthesia, as suggested by Bartlett. If, after 15 minutes, there is no relief, an enterostomy is definitely indicated, since obstruction may be associated. As in acute intestinal obstruction, procrastination may prove fatal. The enterostomy, to be of any value, must be performed before complete paralysis of the intestine has taken place.

GENERAL PERITONITIS

In general peritonitis there are 2 sources for toxemia—the toxins from the acute suppurative process, followed by the absorption of the intestinal toxins as the paralytic ileus develops. If the entire peritoneum is involved, an enterostomy will probably do no good. An enterostomy, however, is a worth-while procedure even though the prognosis looks bad. The surgeon may be fortunate enough to insert the tube before peristaltic movements have disappeared entirely. It is surprising the percentage of patients who can be saved by deflation of the intestine and drainage of its contents. Acute appendicitis with peritonitis heads the list of conditions most frequently helped.

LARGE BOWEL OBSTRUCTIONS

In large bowel obstruction due to carcinoma, a cecostomy under local or ethylene anesthesia should always be done. No attempt should be made to explore the abdomen. Criticism for the tube technic in this type of case is that the entire fecal current will not be diverted. If a large tube, preferably a small rectal tube, is used and frequent irrigations with small quantities of water are done, the large intestine will soon

empty itself and the result will be the same as with a colostomy.

COMPLEMENTAL ENTEROSTOMY

A complementary enterostomy is just as important as a primary one. In all cases of resection of the large or small intestine, an enterostomy should be performed at the same time. In resection of the small intestine, the tube should preferably be placed 18 to 24 inches from the anastomosis; in resection of the large bowel, including the cecum and the transverse colon, an ileostomy should be performed; in descending colon and sigmoid anastomosis, a cecostomy. By this means, gas distention is reduced to a minimum and the tension is taken off the suture line. This encourages a smooth convalescence and a lower mortality. Jejunostomy should be performed in all perforations of gastric or duodenal ulcers which are operated upon 10 or more hours after perforation. This will control the distention from gas resulting from the peritoneal irritation. Appendectomies for gangrenous appendicitis and pelvic operations, as mentioned, should be included under this heading.

FEEDING PURPOSES

No one will doubt the value of enterostomy for feeding purposes. Obstructions between the mouth and stomach, treatment of ulcers situated too high in the cardia for resection, and gastric resections are the main indications.

TECHNIC

The incision for enterostomy may be placed on either side of the abdomen. When enterostomy is performed for simple acute postoperative intestinal obstruction, a left rectus incision about 2½ inches in length through the upper quadrant is preferred. Either local or ethylene anesthesia may be used.

The highest distended coil of intestine should be selected for the drainage, if it can be delivered into the incision easily. If this is not possible, the nearest distended coil is selected. The next step is to determine its direction, which is done by the method of Monks. It is not necessary to deliver more than 4 to 5 inches of the intestine into the incision.

An intestinal clamp is applied at either angle with just sufficient pressure to hold back the gas and intestinal contents. With the segment of exposed intestine between the thumb and index fingers, or index and middle fingers, the gas and intestinal contents are milked out. A second intestinal clamp is applied, by an assistant, with the same amount of pressure as the first. This

leaves the portion between the 2 intestinal clamps collapsed and free of gas and contents.

Warm wet laparotomy packs are placed around the exposed intestine. On the antimesenteric border of the collapsed segment, a purse string of No. 1 chromic catgut on a nontraumatic needle is inserted, forming a circle about half an inch in diameter. A No. 20 or No. 22 French catheter should be used for drainage. A catheter should be prepared before sterilization by enlarging the normal opening and making a second one on the opposite side about 1 cm. above the upper angle of the normal opening. A catheter with one opening should never be used; it might lie against the mucous membrane and become blocked. A Carmolt clamp is applied to the middle of the catheter with sufficient pressure to make it gas-tight. With a sharp-pointed scalpel, the intestine is incised in the center of the purse-string circle. The nose of a Kelly clamp is inserted and the jaws opened sufficiently to allow the clamped catheter to be inserted with the tip downward to a point about 1 inch above the upper opening. The catheter points downward to catch the reverse peristaltic wave and allows the intestinal contents to pass by after the obstructive point is relieved. The purse string is tied tightly and the suture ends tied around the catheter firm enough to hold it. The purpose of this is twofold: (1) To fix the catheter so that it cannot slip either way, and (2) to aid in inverting the intestine after the second purse string is put in. The second purse string is placed about one-fourth inch away from the first. With a little gentle downward pressure on the catheter, the intestine is inverted and the second purse string tied. The catgut is again tied around the catheter. The intestine is cleansed with warm normal salt solution, the intestinal clamps removed, and the clamp on the catheter left in situ.

The next step is to deliver a portion of the omentum into the incision, if possible. The omentum is perforated with a pointed forcep and the free end of the catheter pulled through for several inches. A second clamp is applied close to the free end of the catheter before the first clamp is removed. This prevents contamination taking place through the tube. The omentum is pushed down onto the intestine and both are replaced in the abdomen. The end of the catheter in the intestine should not be kinked and should not exert pressure on the intestinal wall, and the coil of intestine containing the catheter should be kept well away from the anterior abdominal wall. If it is not possible to get a corner of omentum to run the tube through, it is

doubly important to make sure that the intestine is not in direct contact with the abdominal wall.

The incision may be closed in layers or with figure-of-8 chromic catgut sutures. Silkworm-gut is used to suture the skin, superficial fat, and fascia. One silkworm-gut is located close to the catheter and tied. It is then tied around the tube, transfixing it. This silkworm-gut prevents the tube from slipping out and will hold the catheter in place from 10 to 14 days or longer without any difficulty.

When the enterostomy is a complemental procedure, the catheter should always be run through a stab opening in the abdominal wall and never through the original incision. Clamps applied to the tube as described above will permit the passing of the catheter through the omentum and abdominal wall without any contamination. The catheter should be transfixed to the skin with a silkworm-gut.

Usually after 4 or 5 days, the tube may be clamped and, as a rule, removed in from 7 to 10 days. There may be some drainage through the sinus after the tube is removed, but for only a short time.

This technic, suggested and reported by Donald Guthrie before the Southern Surgical Association in 1931, has been employed in the Guthrie Clinic for many years, and in only 2 instances has it been necessary to close a resulting fistula. In both cases the enterostomies were high, and there was necessarily a break in technic by the failure to keep the coil of intestine containing the catheter away from the anterior abdominal wall.

Should it be necessary, do not hesitate to do a second or even a third enterostomy—each in a different location. We have several living patients upon whom it was necessary to perform multiple enterostomies.

AFTER-CARE IN ACUTE INTESTINAL OBSTRUCTION

As soon as the patient is returned to bed, the catheter should be connected with a section of rubber tubing running to some receptacle. Care must be taken that the glass connection joining the catheter and the rubber tube is of the same caliber as the catheter. It becomes blocked easily if either end is narrower than the middle. An accurate account of the amount of drainage should be kept.

Since there is always a fall in blood chlorides, large quantities of saline should be given immediately, either subcutaneously or intravenously. Intravenous injections of 5 per cent glucose and saline during the first 48 to 72 hours, on a ratio

of 2 parts of glucose to 1 part of saline, are very valuable. The amount of fluids given intravenously and subcutaneously should equal twice the total amount of drainage and output.

From $1\frac{1}{2}$ to 2 ounces of warm water should be injected into the catheter without pressure every hour to insure constant drainage. This may be done by the nurse. However, at least 3 or 4 times during the first 24 hours, the surgeon or one of his assistants should irrigate the intestine. This is done by injecting 4 to 5 ounces of warm water into the intestine and allowing it to syphon off, and may be repeated any number of times until the water returns almost clear.

If the amount of drainage falls below what might be considered normal, larger quantities of water should be injected into the intestine without pressure. This procedure often straightens out an angulated coil of intestine which is interfering with proper drainage.

Deflation should take place quite rapidly so that at the end of 4 or 5 days it should be complete. A clamp should then be applied to the catheter and allowed to remain. If cramping pain occurs, the clamp should be released and the drainage allowed to continue for a short time. The procedure should be repeated until the patient has 1 or 2 bowel movements. After this occurs, the catheter may be removed.

CONCLUSIONS

1. Enterostomy, to be of value, must be performed early.
2. Enterostomy should be performed under local or gas anesthesia, preferably ethylene.
3. In simple postoperative acute intestinal obstruction, enterostomy has its greatest value.
4. Enterostomy is of little or no value in acute obstruction from strangulation.
5. For obstructions due to local peritonitis in the appendiceal and pelvic regions, enterostomy has great value.
6. In cases of general peritonitis that do not improve under the usual treatment, enterostomy should be employed.
7. If used comparatively early in postoperative adynamic ileus, enterostomy can be of definite value.
8. Enterostomy may prove to be valuable when done as a complementary procedure.
9. Enterostomy should be performed in all cases of intestinal resections.
10. In acute intestinal obstruction of the large

intestine due to carcinoma, cecostomy should be performed without exploring the abdomen.

11. The technic described in this paper is a simple procedure; it avoids contamination and prevents fistulae.

12. Transfixing the catheter in the intestine and to the skin with a silkworm-gut is very important.

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ABSTRACT OF DISCUSSION

HAROLD L. FOSS (Danville): The course of medical progress has been marked by the frequent and enthusiastic advocacy of new surgical measures which, while occasionally proving helpful in certain conditions, were often found to have a rather restricted usefulness. One which had an especial vogue some 15 or 20 years ago and which, unquestionably, was resorted to altogether too frequently although it possesses definite value is enterostomy. Until a few years ago many of us were resorting to the operation in all sorts of abdominal conditions, particularly intestinal obstruction, and frequently with disappointing results. While we learned ultimately that it was not as helpful a procedure as we had first hoped, we found that it did have a very definite field in which it often proved to be a life-saving measure.

The technic as described by Dr. Hawk is ingenious and about the most satisfactory that could be evolved. I agree with the general conclusions at which he arrives. In intestinal obstruction due to carcinoma, particularly in the left half of the colon and with obstruction present, the operation is often indicated. In carcinoma of the ascending or transverse colon, I would advocate for most patients a primary ileocolostomy, followed in 6 weeks by resection of the bowel. Patients who are not bad risks may be subjected to a Mikulicz operation with immediate removal of the tumor. Unfortunately, in intestinal obstruction, in which we formerly depended so much on ileostomy, we often failed to get the outpour of intestinal contents with rapid decrease in abdominal distention for which we so fervently hoped. Too often we found that we were draining but a single loop of bowel, failing completely to produce any reduction of distention in the adjacent or proximal coils.

When dilatation of the colon or ileum occurs, either the result of ileus or actual mechanical obstruction, the physical findings should be checked with the roentgenogram before any type of surgical operation is done. The need for immediate decompression in these cases is obvious, yet the form of treatment may depend entirely on the evidence provided by the roentgen-ray examination. The progress of the decompression, irrespective of what measure is utilized to accomplish it, should be repeatedly checked by roentgenograms made at the bedside.

In most cases of intestinal obstruction, certainly in adynamic ileus, some form of decompression apparatus, such as the Wangenstein, will accomplish about as much as an ileostomy. Many patients with ileus secondary to peritonitis, who recover following ileostomy, would recover without the ileostomy if adequate decompression by means of the duodenal tube and the mainte-

nance of normal fluid level were provided. However, when less drastic measures fail in restricted and especially selected cases of intestinal obstruction, whether mechanical or due to ileus, ileostomy may be utilized.

In these cases, the operation as advocated by Dr. Hawk will be of the greatest value, frequently proving to be the only procedure on which we can depend to save the patient's life.

THE APPENDIX VERMIFORMIS IN INFANCY AND CHILDHOOD*†

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The appendix vermiformis is the seat of acute and chronic inflammation in infancy and childhood as well as the frequent seat of congenital malformations resulting in clinical difficulties. In the first group early attention is not paid to the patient with the promptness that the catastrophe necessitates as is evidenced by the extremely high mortality that can be found by the inspection of the death reports from all parts of the world. In so far as the malformations are concerned little or no attention is paid to this organ in contrast to the severity of symptoms, both local and general.

It is important to appreciate the embryologic change of position of this distinctly vestigial organ as it migrates from one place to another in the abdomen as the simple tube-like gut is evolved, rotated, and finally mapped out as a gastro-intestinal tract with its appendages and in its ultimate relationship to the contents of the abdominal cavity. At about the fourth month the appendix will be found definitely demarcated and located in the left upper quadrant, from whence it migrates to the right upper quadrant, to which point and from which point the rate of migration is extremely variable in relation to months. In the instance of its descent to the right lower quadrant even years must be considered.

The appendix has been found in the newborn in the left upper quadrant, in the right upper quadrant in apposition to the gallbladder, and either of these positions may be maintained well into young childhood. The descent to the right iliac fossa or lower right quadrant does not occur with the rapidity that is generally supposed but lags so that symptoms of acute appendicitis in young children do not, as a rule, coincide with the classic textbook picture as written by surgeons dealing with adult life.

Other anatomic factors also enter into the picture. The appendix itself, by reason of the fact that it is a vestigial organ, varies greatly in

length and naturally in position as a result of this migration. A short meso-appendix, too, will alter its relation to the cecum and its freedom in the abdominal cavity. This will naturally interfere with the freedom of blood movement through the appendicular artery, which in turn is forced to coil and kink. There may be interference also at the point of emergence from the ileocolic vessel. The return circulation is even more frequently interfered with so that some degree of edema may occur almost constantly in the appendix with or without interference with the lumen drainage.

The appendix should hang free from the cecum, but a short inferior ileocecal fold will cause angulation and rotation. Sometimes this will throw the appendix in a retrocecal location causing sharp angulation and interference with the drainage of the lumen and circulatory stasis. Even a "free appendix" is not devoid of dangers, for should it be long it is apt to migrate with greater rapidity, relatively speaking, and its tip find its way into the inguinal rings or around the base of the bladder.

Another very important anatomic fact is the abundance of lymphoid tissue to be found in the walls of the appendix, which in infancy and childhood is relatively greater in this organ as is the case of lymphoid tissue generally wherever it may be found in these young subjects.

Acute appendicitis can be suppurative or gangrenous, and both forms occur in infants and children. Cases have been reported occurring in infants as young as 40, 41, and 55 hours old. The onset is sudden and tumultuous. Vomiting, early fever, and obvious pain are 3 symptoms that will usher in an attack. It is, therefore, imperative that a thorough examination of a baby be made promptly in order to detect a possible point of tenderness or actual abdominal rigidity which may be located at any point, depending upon the anatomy already recited. Leukocytosis also may be present.

Generalized cramplike pain will be present, but the unfortunate inability of children to localize pain necessitates even greater care in the examination of the abdomen. There may be

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† From the Department of Pediatrics, Jefferson Medical College.

tenderness about the umbilicus, but there is more tenderness over the appendix wherever it may be. In the vast majority of cases it may be found on a level with the umbilicus well out in the right flank or slightly below a line drawn horizontally across the abdomen through the umbilicus.

In the suppurative case rigidity will occur early. This is true resistant rigidity and not the resistance offered by reflex pain from the pleura. The gangrenous appendix may produce no early rigidity, likewise retrocecal appendix. Rigidity depends upon irritation of the parietal peritoneum, and the suppurative appendix will produce this irritation early. In many instances the gangrenous appendix will not do so until rupture has occurred. The retrocecal appendix may not do so by reason of the fact that suppuration or gangrene lies buried far from the parietal peritoneum. Therefore, tenderness is perhaps the key to the early diagnosis of appendicitis in the vast majority of cases with pain and vomiting as warning signals that should lead to early and careful physical examination.

The pulse rate will become progressively increased even before the temperature begins to rise. In the later cases, when the temperature does go up, 100° F. to 101° F. is the usual limit. This condition should contrast itself with the pneumonias, which are so frequently mistaken for cases of appendicitis.

Too many factors enter into the determination of what the blood count should be to make a hard and fast rule concerning this laboratory procedure. Acute suppurative conditions have had blood counts as low as 5000 and 6000, undoubtedly due to the fact that the omentum was long enough to wall off the process sufficiently to prevent rapid dissemination of infection throughout the peritoneum, or absorption was slow due to lymphatic and blood vessel occlusion or partial occlusion.

The same might be said about the gangrenous appendix. The majority, however, do show counts between 10,000 and 20,000. An occasional case, particularly in lymphatic blondes, will register above 20,000 white blood cells. What would seem to be of more importance is the preponderance of polymorphonuclear leukocytes, which is not characteristic in young children since lymphocytes are more predominant in the young.

At the same time that vomiting and pain manifest themselves diarrhea may also be present, but it is not a common occurrence. However, a history of constipation can always be elicited when actual diarrhea is not present since so few

individuals know what actually constitutes constipation.

The diagnosis of acute appendicitis should be made within 12 to 18 hours of its onset in order not to expose the patient to the hazards of peritonitis or the sequela of abscess formation. It can be done without laborious laboratory assistance and by careful and prompt physical examination.

Differential diagnosis should include the elimination of the following conditions:

1. *Enteritis of toxic origin.*—The vast majority of cases, because of the onset of vomiting, are ascribed to dietetic indiscretions, and no further effort is made to find the true nature of the illness until it is too late. Either the child is immediately purged by its parents, or a laxative is ordered without proper physical examination. It is always incumbent upon a diagnostician to make his diagnosis at the patient's bedside and not his own. Although economies may make free telephone calls desirable rather than house visits, no child should ever be prescribed for without a physical examination. Enteritis, or simply gastritis, will not be accompanied by localized tenderness or rigidity to any marked degree. The temperature will be found at the higher levels with an almost immediate response. Enteric pain is generalized and spasmodic, and the diarrhea is typical.

2. *Intussusception.*—This abdominal catastrophe is more apt to be confused with enteritis than appendicitis. There is vomiting, pain, tenderness, and rigidity, a palpable mass by rectal if not by abdominal palpation, the typical bloody discharge, and the lashing peristalsis above the obstruction with ominous silence below. In view of the fact that the appendix is so frequently involved in this condition and prompt surgical interference is quite as imperative, no time should be wasted in a differential diagnosis of this kind.

3. *Ureteral stone and pyonephrosis.*—Since the pain and tenderness in young children in acute appendicitis is located so far out in the flank, errors in diagnosis are apt to occur in so far as the urinary tract is concerned. Here the examination of the urine may throw some light on the possibility of infection in the kidney or its ureter. Pain may also be elicited over the deep kidney area, or a mass felt. Should the child be passing a stone, pain is apt to be paroxysmal, blood may appear in the urine, or the mass of hydronephrosis may be palpated.

4. *Pneumonia with pleurisy.*—Ten per cent of the children who have been referred to our clinic with a diagnosis of acute appendicitis have

been found to have pneumonia with pleurisy. They have had pain referred to the abdomen as far down as McBurney's point. In these cases rigidity is false. With the rapid breathing of the child a steady, firm, but slow pressure will find the palpating hand reaching well into any point in the abdomen without eliciting any definite point of tenderness. Incidentally, wincing is a better criterion of tenderness than subjective responses to questioning in the determination of tenderness.

The temperature in pneumonia very promptly rushes to higher levels; 103° F., 104° F., and 105° F. are not uncommon. Such a temperature range will be found only in the agonal stages in peritonitis with its classic picture that need not be described here.

The respiratory rate is increased, the alae of the nose dilate with respiration, the cheeks are flushed, and the physical signs of pneumonia will be found in the right base or left apex in more than half of the patients.

In the other group diminution in the breath sounds will generally be heard over certain areas in the lung, particularly in the right base. This may be due either to a thickening of the pleura, a thin superficial layer of pneumonia, or both.

The popular notion that the pneumonia is "central" and therefore cannot be heard is fallacious, for pneumonia so situated would obstruct the larger bronchial tubes and prevent the vesicular qualities arising in the more superficial lung tissue from manifesting themselves. This would lead to an easily recognizable deep tubular breathing.

Hyperresonance or slightly impaired resonance may be present. The leukocyte count is generally high. It must be emphasized, however, that the blood count is but a small part of the picture in the differential diagnosis of these conditions.

5. *Other types of obstruction, malformation, and Meckel's diverticulum.*—These conditions so obviously demand immediate surgery that time should not be wasted in an attempt to differentiate them from appendicitis if there should be a doubt.

In the instance of a long appendix that early finds its way into the pelvis, the signs are transported to the lower abdominal wall and there may be evidence of either strangulated hernia with the appendix as the culprit rather than the intestine, or the appendix may embrace the neck of the bladder causing tenesmus and dribbling of urine, showing a distended bladder. In the female, symptoms referable to the internal

genitalia are meager and unimportant because of the infantile character of these structures.

An attack of acute appendicitis may arise as the result of acute infection in any appendix. The malformations, because they interfere with the normal flow of blood through the organ and because the drainage through the lumen of the appendix may be interfered with, will be strong predisposing factors so that worms, fecal concretions, or foreign bodies may excite acute inflammation and infection.

Acute suppuration is more apt to follow acute infection. Gangrene may follow acute suppuration or result from an interference with the blood supply. An example of acute suppurative appendicitis can be illustrated by the following case:

N. J. C., age 4, was admitted to the hospital during the early morning hours with a history that 5 hours previously she had been awakened with an abdominal pain indicated as generalized and with a desire to defecate. When making the attempt she vomited copiously.

An examination made by her physician an hour later showed that she had an intense rigidity over the right rectus and a point of tenderness well within the flank on a line drawn through the umbilicus. An attempt at deep pressure gently applied elicited a reflex pain in the left lower quadrant. The temperature was 99° F. The leukocyte count was 15,000 with 85 per cent polymorphonuclear cells. At the hospital vomiting was repeated, the temperature was 101° F., and the urine was negative; leukocytosis, pain, tenderness, and rigidity persisted. Some peristalsis was present; rectal examination was negative; the lungs were clear.

She was operated upon immediately. A McBurney's incision was made through the right external oblique over the point of tenderness. There was some free fluid in the peritoneal cavity. A greatly swollen appendix, plastered against the cecum by an exudate, was delivered and removed, and the wound was closed. The appendix showed a greatly distended organ filled with pus with a *Bacterium coli* odor. The patient made an uneventful recovery.

The report of another case illustrative of the gangrenous type follows:

R. D. B., age 11, had never had any evidence of gastro-intestinal disturbance or any clinical evidence of appendicular pathologic involvement. He had had 2 active days of sports, which he had enjoyed thoroughly. He had eaten a hearty breakfast at 8 a. m., followed by his regular morning bowel movement. At 11 a. m., he suddenly stopped his play and went to the bathroom because of a pain that he tried to relieve by having another bowel movement; this was successful as far as the bowel movement was concerned, but the pain persisted.

He was seen by a physician at 11:30 a. m., who found that the pain was localized over McBurney's point. Tenderness was also found in this area over a spot about 3 cm. in diameter. There was no abdominal rigidity; there had been no vomiting.

He was removed to Jefferson Hospital with a temperature of 99° F., and a pulse rate of 90, which increased 10 points in an hour's time. There were râles in the bronchi and a little cough. The leukocyte count was 12,000; the urine was negative. He vomited when being taken into the operating room at 2 p.m., just 3 hours after the onset of the pain. Still there was no rigidity, but the point of tenderness remained the same.

Because of the cough the surgeon used local anesthesia. A McBurney's incision was made and fluid was found in the peritoneal cavity. The appendix was greatly swollen, with a large gangrenous tip. Edema was present in the rest of the organ, and the swelling had closed the lumen entirely. There was nothing in the lumen. The meso-appendix had kinked the appendix in the middle. The wound was entirely closed, and the patient made an uneventful recovery.

Neither of these children was given a laxative or purge. Complete and prompt recovery followed early radical surgery, which was substituted for the palliative medical procedure that would have inevitably resulted in generalized peritonitis.

Laxatives and purges have no place in pediatric practice and most certainly not in abdominal crises. This statement is emphatic and will, undoubtedly, be received by the lesser informed as dogmatic. It is intended to be a challenge to those inclined to establish a place for such laxatives or purges.

The first case is a classic textbook picture of acute appendicitis in a young child which should never be overlooked. The second case is classic enough as an illustration of gangrenous or perhaps retrocecal appendicitis, but there are points particularly with reference to the lack of rigidity that would leave room for doubt, especially for the inexperienced and timid. This emphasizes the need for reiteration of the possibility of variance from the classic picture, and the need of systematic and regular physical examinations of all patients who present a history of abdominal pain. The short omentum in young children also makes early operation imperative if generalized peritonitis is to be avoided.

All cases of appendicitis in children are not acute or fulminating. So-called chronic appendicitis or recurrent attacks of appendicitis due to malformations or structural defects occur more frequently in children than is generally supposed. A wide variety of signs and symptoms are frequently overlooked, perhaps because the conception of chronic appendicitis is, generally speaking, one of mild temporary infection whereas, in the vast majority of cases, infection is secondary and perhaps might not be present at all.

There is, for example, a form of appendicitis occurring in young children that might be re-

ferred to as appendicular colic. A child may be perfectly well but upon irregularly spaced occasions suddenly stop its play and bend over, complaining of abdominal pain. It may be fleeting or it may last several minutes. As it passes, the child will relax, stand erect, and heave a sigh.

Perhaps for a short time thereafter, tenderness may be found over the appendix in these children. It is probably due to a short meso-appendix, with sudden but temporary interference with the blood supply. These children ultimately may have an attack of acute gangrenous appendicitis, but fortunately it does not occur in all. Some will later become victims of another type of appendicitis due to a chronic state of edema of the appendix. These cases also are referred to as chronic appendicitis for want of a better term.

Irritation caused by the mechanically restricted appendix will set up a chain of symptoms of any type referable to the gastro-intestinal tract. Symptoms of spastic colon with ribbon-like stools, anorexia, or indigestion may occur. Attacks of what are erroneously referred to as "bilious attacks," that is, vomiting attacks which are so persistent that finally bile is vomited, may be the response.

Almost any gastro-intestinal disturbance will excite neuropathic symptoms so that the child may be referred to as a nervous child with a capricious appetite or inability to digest or retain ordinary food. There may be a condition of dry constipation and inability to digest numerous articles of diet. A roentgen-ray examination of the gastro-intestinal tract may show evidences of what might be interpreted as ptosis, constrictions, intestinal hyperactivity, or even constrictions that do not really occur. Sometimes there will be a great weight loss and secondary anemia. Loss of appetite is a frequent occurrence. Tenderness over the appendix upon gentle but deep palpation can usually be elicited. Many children wearing ptosis belts and other abdominal supports are cases in this class. Low-grade infection in these cases of long standing is prone to occur, and acute attacks are apt to occur at any time. The following case is illustrative of this type of appendicitis.

G. A. B., age 9, when first seen was extremely undernourished, irritable, inattentive, and plaintive, and was difficult to examine. His mother stated that he had no appetite and would not eat because he feared that food would not agree with him. This fear was brought about by the fact that sometimes, when he did eat, he would get abdominal pain and distention and occasionally attacks of vomiting.

The mother said that they were only bilious attacks and that his fear was groundless. However, she did

call attention to a long series of foods that disagreed with him because they made him belch and feel uncomfortable. He was constipated in the sense that he had difficulty in having an evacuation, and it was ribbon-like in type.

Physical examination elicited tenderness over the appendix on deep pressure. Roentgen-ray studies showed some spasticity in the large bowel. The Mantoux and Wassermann reactions were negative.

A slightly edematous appendix was removed. It was rotated on its axis and pulled retroceally by a very short meso-appendix. The condition was diagnosed microscopically as "chronic catarrhal appendicitis."

This boy recovered completely from the operation. He soon began to eat like a normal boy of his age, and the constipation cleared up. In a few weeks he gained in weight, and in 3 months the weight compared favorably with his height. The muscle tone and skin turgor were excellent. His mental attitude underwent a complete change and he was no longer a problem, becoming interested in outdoor athletics. When seen one year later, he was a normal, happy boy.

An important lesson to be drawn here is the necessity for a careful study of the physical condition and its relation to the psychologic reaction. This boy had been classified as a problem child. There are altogether too many already in the neuropathic group without adding chronic appendicitis to mental problems.

The consideration of appendicitis in the dietetic upsets, coupled with real gastro-intestinal problems, is imperative in order to prevent partial or complete invalidism in young children. This type of appendicitis in childhood is anal-

ogous to the adult type referred to as chronic appendicitis with upper abdominal symptoms.

We must not expect, however, to find symptoms of ulcer and gallbladder disease in young children that can be attributed to appendicitis. But the analogy does hold good in that the symptoms of chronic appendicitis in childhood may be found far afield. Since so many of these cases may become acute, it is worth while to remove the offending organ as prophylaxis as well as to relieve the symptoms themselves.

To reduce the mortality from appendicitis in young children a clearer understanding of acute and chronic appendicitis is absolutely essential. Time is an important element. The phrase, "Let us wait and see," is the first act in chiseling the date of death on the tombstone of an unfortunate child. That is why no time has been spent in this paper discussing diffuse peritonitis or appendicular abscess. We should not "wait and see" them develop.

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ABSTRACT OF DISCUSSION

JOHN M. HIGGINS (Sayre) : Relative to the question of the diagnosis between pneumonia and appendicitis, I agree with Dr. Bauer that we should be pneumonia-conscious in these cases. The distinction at times is very difficult. On numerous occasions I have had to call in the surgeon and insist that he share a large part of the responsibility of delay in waiting for the diagnosis.

MODERN VIEWPOINTS ON THE PROBLEM OF ECZEMA*

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There is no dermatologic condition discussed so often as eczema. The very complexity, the varying etiology, the prevalence, the lack of unanimity even among dermatologists as to what constitutes eczema, all contribute to making the study of this condition a paramount problem in dermatology. Many dermatologists believe that the word eczema has outgrown its usefulness and that it should be entirely supplanted or at least definitely qualified. Eczema formerly included any skin disease the nature of which was unknown. However, to the layman the name eczema has a fascination, as witnessed by a patient who had gone to her family physician for what he called eczema. After several weeks of fruitless treatment she consulted a dermatologist who made a diagnosis of scabies. He showed her the *Acarus scabiei*, but this was not satis-

factory to her and she returned to the physician who had told her she had eczema.

In 1844, 10 years after Renucci had demonstrated the *Acarus scabiei*, Hebra definitely proved that the scabetic diathesis was purely a local manifestation due to the irritating activities of the itch mite plus those induced by scratching. This work induced Hebra to undertake an intensive study of eczema, which led him to the idea that all superficial catarrhal inflammation of the skin caused by irritants is eczema. Today, almost 100 years later, scabies is still diagnosed eczema, and physicians still quibble over the question of whether skin diseases produced by irritants are eczema or dermatitis.

Morphologically eczema and dermatitis are identical. They are both characterized by erythema, papules, vesicles, and pustules, either alone or in combination, associated with crusts, scales, thickening, infiltration, lichenification,

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and fissuring. Both macroscopically and microscopically eczema and dermatitis have all the characteristics of an exudative inflammation. The distribution of both conditions may be identical.

A consideration of some of the definitions of eczema will indicate the similarity as well as the tumult and disorder which exist. R. Sabouraud believes that "eczemas are those vesicular eruptions of the skin of which we are ignorant of the cause." In 1900 J. Jadassohn said, "External or, rarely, internal irritants added to idiosyncrasies variable in their type play the essential rôle in the etiology of eczema." Barber in England simply says that it is an inflammatory reaction of the skin indicative of epidermal sensitization. H. MacCormac believes that eczema is a "quality of the individual," which exists whether the skin reaction is present or not. The late Bruno Bloch in 1929, after much of his life had been devoted to the problem, said "Eczema is an idiosyncratic reaction of the skin toward numberless irritants (substances), most invariably alien to the body in nature, which generally come in contact with the skin via an exogenous route or (more rarely) via an endogenous route. Thus, to produce eczema, 2 requirements must be fulfilled: The specific monovalent or polyvalent idiosyncratic preparation of the skin and the presence of the eliciting substance." G. A. Rost classifies eczemas according to their etiology. In this country some of our able dermatologists have contributed much to this subject. The late Walter J. Highman said, "What is called eczema is due to the response of a predisposed skin to a precipitating agent." R. Friedman places eczema in the drama in his discussion, "To be or not to be," and finally comes to the conclusion that eczema is dermatitis venenata. In an able discussion of the problem J. H. Stokes states, "An eczema is a persistent dermatitis in which the predisposing causes or background outweighs the immediate cause or causes." One idea they all have in common is that a predisposing background is necessary. Other than that there is much confusion.

A study of those conditions in which the term eczema has been modified or discarded entirely may shed light on the problem. As our knowledge grows, more and more conditions have been taken out of the eczema scrap heap and definitely classified. To the general practitioner these concepts are of the utmost practical importance, for he is usually the first to see these cases. If he can differentiate a dermatitis venenata from a fungus infection, or seborrheic dermatitis from a diathetic eczema, he has gone far

in giving his patient relief, since a correct diagnosis means effective treatment.

The discussion will be confined to those conditions which have been taken from the eczema group in the past few years and which by their exclusion have given insight into the eczema problem. It may seem somewhat contradictory to read a paper on eczema and then confine the discussion to those conditions which are no longer unqualifiedly called eczema, but it is indicative of the general trend in dermatology today. Call these conditions mycotic eczema, seborrheic eczema, allergic eczema, or occupational eczema, but at least be cognizant that they can be differentiated etiologically and do not be satisfied with a simple diagnosis of eczema.

In 1888 P. J. Unna described seborrheic dermatitis. This is a relatively common disorder easy to diagnose. It is characterized by greasy scales usually occurring on the scalp, forehead, postauricular regions, nasal folds, sternum, and interscapular regions. The lesions on the skin are circinate irregular patches covered with yellow greasy scales. Acute seborrheic dermatitis may be confused with contact dermatitis.

In 1902 W. Engman first described what he called dermatitis infectiosa eczematoides. It consists of vesicular, pustular, or scaly circumscribed patches usually occurring on exposed parts. *Staphylococcus aureus* is usually found in pure culture.

Mycotic and occupational dermatologists have probably made the greatest contributions in the past 30 years in simplifying the eczema problem. Leaders here and abroad all helped to establish a clinical entity of mycotic origin. A consideration of the intensive research that has been done on this aspect of dermatology and the large percentage of the population affected by it indicates its vast importance. Dermatophytosis of the feet with its accompanying dermatophytide often assumes serious proportions. In any dermatitic process of the hands and feet, scrapings should be made and a search for fungi instituted. The hands may be negative according to the dermatophytide conception of various dermatologists. The number of patients who have hemorrhoidal tags removed or dilatation and curettage of the uterus performed for mycotic pruritus ani and vulvae is amazing. A scraping soaked in potassium hydroxide would have told the story. The interrelationship between mycotic infection of the skin and contact dermatitis is an interesting one. H. Beerman has recently reëmphasized that a fungus infection may predispose a contact dermatitis, and conversely that an allergic dermatitis may predispose to or reactivate a fungus

infection. Fred D. Weidman has shown in the laboratory that organisms not only can exist but even grow on leather. The clinical importance of these 2 facts is obvious.

From the study and investigation of occupational dermatitis an understanding of the modern concepts of eczema as a whole were grounded. In a very broad view of the subject Bloch brings out some of the cardinal features in the study of this group of dermatitis:

1. The great number and variability of the etiologic factors.
2. The fact that the nature of the disease is to a great extent independent of the contact substance shows very strongly that for the development of an eczema the terrain exposed is the most important factor.
3. Under similar conditions only a small percentage of workmen develop eczema.
4. Certain substances have the property of causing 2 or more idiosyncratic pictures; *e. g.*, salvarsan can produce urticaria, asthma, or eczema.
5. In most cases dermatitis develops after long exposure.
6. Direct contact between the eczematous substance and the skin is not necessary.
7. These occupational dermatoses are nothing more than the specific allergic response of an organism (the skin) to a substance to which it has become sensitized by contact.
8. In his famous primrose experiments Bloch showed that it was possible to make a person idiosyncratic and that he remained so. In other words, he produced an allergic state with an organic compound of known origin. Here then is found the great modern trend in the understanding of contact dermatitis.

One of the greatest aids in the diagnosis of a contact dermatitis is the patch test which was developed by Jadassohn in 1895 and used by Bloch, and introduced in this country by F. Wise and M. B. Sulzberger. The method as simplified by the latter can be used readily by anyone.

There are thousands of contact possibilities as shown by L. F. Weber's list of cutaneous irritants, but a careful history and a study of the distribution of the dermatitis often aid in reducing the possibilities to a practical number for testing. For example, I saw a young woman with a severe dermatitis around the eyes. She was also markedly seborrheic. The first impression might naturally have been that the condition was a seborrheic dermatitis. However, a carefully taken history revealed that she had had 3 definite exacerbations. An investigation of cos-

metics used was made and patch tests done. A lid-shadow dye proved to be the offending agent, and the patient then recalled that following the last 3 applications of the dye the dermatitis had developed. She had used it for about a year previously and for that reason had never suspected it as the causative agent. This case corresponds to the severe cases of dermatitis due to Lash Lure first reported by S. S. Greenbaum, and the cases reported by Lester Hollander of dermatitis of the face and neck following the use of La Gerardine, a preparation used for setting waves in the hair. Another patient had a papulovesicular dermatitis with some lichenification and much excoriation. It was limited to the back of the neck and upper back and arms with very slight involvement of the popliteal spaces. There was a history of asthma and hay fever in the family. Without a careful history a diagnosis of diathetic eczema might have been made. The salient features were a duration of only 3 months and its sharp margination. The offending agent proved to be a rayon kimono. The famous case reported by W. A. Pusey and H. Ratner of a young man who developed an acute dermatitis of the face, neck, and upper half of the body is another example of the possibility of wrong diagnosis. The patient had a psychoneurosis and was in an anxiety state. It was assumed that the dermatitis was of neurogenous origin, but it was subsequently shown that the acute dermatitis was excited by perfumed cosmetics which his wife of 2 weeks used. M. E. Obermayer's case of a physician in whom a vesicular eczema developed on contact areas following the use of rubber gloves that had been cured with sulphur monochloride is another example of contact possibilities. When the gloves were treated with alkali no dermatitis developed.

The battle front where the greatest war on the eczema problem is being waged to-day includes the diathetic eczema of Stokes, the atopic eczema of Sulzberger and Wise, the neurodermatitis of Brocq, the late exudative eczematoid of Rost, or the eczema-asthma-hay fever complex of the English. Stokes points out that the 3 most distinctive dermatologic features of the diathetic are the involvement of the elbow, wrist, and knee flexures with the face: dryness and leathery lichenification in intervals between extremely pruritic and often weeping exacerbations; and a tendency to a pale stria reaction.

S. Ayres has reemphasized the fact that eczema is not a disease entity in the sense that diphtheria or tuberculosis is, but rather a clinical symptom of multiple etiology in much the same category as headache. It is evident, therefore,

what importance the etiology assumes in rational treatment. First and foremost, study the patient as a whole. Do not give him a grease, as some physicians give aspirin for headache, and feel that you have given the best of your therapeutic acumen. Take a careful history—it may give a lead as to the possible contacts; it may give an insight into the allergic background; it may give important clues regarding other organic ailments which may bear some relationship to the eczema, for example, focal infections, intestinal intoxication, and so forth. L. G. Beinhauer, in a series of 114 private cases of eczema in which he excluded all patients in whom an external causative factor was known, revealed some definite constitutional disorder in every patient, whereas only 23.6 per cent of a series of 114 noneczematous dermatoses revealed constitutional disorders. Alden recently reported 2 patients with generalized eczema of several years' duration in whom there was marked improvement following the removal of pathologic gallbladders. Highman reported a case of universal eczema of 14 months' duration which disappeared a few weeks after the removal of an infected kidney.

Strip the patient. Examine him painstakingly from scalp to toe. Look at his skin as a whole. Is he dry or greasy, does his skin flush and blanch, does he perspire freely? Scratch his back lightly with a tongue depressor and see if a red dermatographism is produced, or the pale white strich which is so characteristic of the diathetic. Note carefully the distribution of the dermatitis. Also examine the patient's clothes and accessories; a match box in his pocket may be a lead, a leather hatband in his hat, rayon underwear, or nickel glasses. The accuracy with which these details are noted is often important in establishing a diagnosis.

If the dermatitis occurs on the hands and feet, the intertriginous areas, or the anus and vulva and groin, examine scrapings or make cultures to rule out or establish a fungus infection. If the distribution of the eruption suggests a contact factor, do a patch test.

Aside from mere curiosity, there are obvious reasons for determining the etiology of the attack. The condition may be more rapidly cured, recurrences may be avoided, and the possible underlying constitutional disturbances may be discovered and remedied. After a thorough search for the causative agent, remove it if it is found. Whether or not the etiology is known, the existing dermatitis must be treated. The keynote of all treatment is simplicity and mildness. Sulzberger has aptly said that the more experienced the dermatologist the weaker the concentrations

of the therapeutic agents he employs. In the very acute stages of dermatitis, whether its etiology be a local irritant, a yeast, or unknown, there are certain mild applications which are of value. They are so simple that they are often disregarded in favor of some very complicated, highly concentrated application. For wet dressings a mild potassium permanganate solution (1 to 8000, or 1 to 16,000) or a 0.5 per cent solution of liquor aluminum acetate, or a saturated solution of boric acid is very effective. Ammoniated mercury (2.5 per cent) alternated with 3 per cent ichthyol in a zinc oxide base following the soaks is indicated. Occasionally a mild calamine lotion helps considerably, especially in contact cases. In the subacute eczemas the ointments may be employed in somewhat stronger concentration, and a very mild tar may be used with caution. In the chronic cases the tars are of great value. They must be used with caution, however, and never be allowed to remain on the skin for more than 12 hours. If the patient is ichthyotic keep him well greased with some bland ointment. If he is seborrheic, a mild sulphur (2 to 3 per cent) is indicated. In a chronic yeast infection, salicylic and benzoic acid ointments are a great aid. They should not be used in the acute cases, however, since they may cause severe exacerbations. Roentgen ray in the hands of the specialist is of great value but should not be employed by anyone who has not been adequately trained in its use. If the dermatitis has not been caused by sunlight, see that the patient gets plenty of ultraviolet rays. Give large doses of calcium internally. J. V. Klauder and H. S. Brown found that the irritability of the skin varied inversely with the calcium content of the skin and directly with the potassium content. Their work was done on rabbits. Injection of calcium chloride produced a striking decrease of cutaneous sensibility. This gives a scientific basis for the use of calcium in these cases. Give large doses (4 to 5 gm.) on an empty stomach (that is, before meals) and give the powdered form rather than the tablet.

Investigate the patient's diet carefully, meal by meal. S. Ayres, Jr., and J. V. Klauder have both shown that there is often a disturbance in the carbohydrate metabolism as revealed by the glucose tolerance test. D. M. Pillsbury has shown in a series of highly accurate and painstaking experiments that a specific carbohydrate metabolism of the skin can be observed experimentally. Cut down the patient's carbohydrate intake and increase the green vegetables. Klauder has also shown that narcosis decreases cutaneous sensibility. Do not narcotize the pa-

tient but help to relieve the nervous tension and irritability.

The use of splenic extract in the treatment of eczema has been given whole-hearted support by some and has been found useless by other investigators. T. M. Paul claimed an instantaneous physiologic cure by the use of splenic extract in cases of eczema and urticaria. No one has substantiated his claims. Other investigators got a small percentage of cures and only relief from itching in the other cases.

SUMMARY

In the treatment of eczema or dermatitis, first and foremost, attempt to establish the etiologic factor. Study the patient carefully not only from the standpoint of the skin but also the history and physical background. Remember the possibilities of the patch test. Use bland soaks and ointments locally. Restrict carbohydrates and give large doses of calcium before meals. Splenic extract may be of slight value in a few cases, but certainly it is no panacea for the treatment of eczema. Roentgen ray is to be used only by the specialist. Do not forget rest, both mental and physical, which, when used wisely in conjunction with rational therapeutics, is one of the great allies in all medical procedures.

318 Spring Garden Street.

ABSTRACT OF DISCUSSION

LESTER HOLLANDER (Pittsburgh): What an excellent name eczema is! It was so named because it signifies the process of boiling over. This boiling over has been going on for several years, and it has eliminated many diseases previously thought to be eczema. I am hoping that this boiling process will continue to eliminate many more diseases still classified as eczema. The work of Luithlin in Vienna is not receiving enough attention. He showed that food had a great deal to do with irritability of the skin. This is not only of academic interest, but of great value from the standpoint of treatment. He fed rabbits oatmeal, which is supposed to be an acid diet. These animals had a skin much more irritable than that of normal rabbits. When they were placed on an alkaline diet, those irritants which under the other diet were able to produce strong vesicular dermatitis did not do so. This information is very valuable. Many people with diathetic eczema who show these manifestations at the outset could be cured if their diets were corrected. Then perhaps the wool or the dye in the clothing would not become sufficiently irritating to produce an eruption.

Most important in the treatment of eczema is the history, because the patch test is only positive if applied to an area where eczema has occurred before. If the patch test is applied to an unaffected area of the skin, the chances are that the reaction will not be of such nature as to draw positive conclusions. History-taking is difficult. The resistance with which patients answer questions is remarkable.

There is a misconception that soap and water and

eczema do not mix. Soap and water on a contact dermatitis—if this is an eczema and it is known what actually has caused it—is an excellent treatment. It is very painful and means much oozing of serum, *etc.*, but is as excellent as it is for the treatment of poison ivy.

If you give calcium, do so between meals. If the meals happen to be at 12 m., and 6 p.m., for instance, give it at 3 p.m. Do not give it immediately before or after meals. If it has any value, which I doubt very much, that is the only time when it can be absorbed. I do not know how much of it becomes absorbed.

REUBEN FRIEDMAN (Philadelphia): There may or may not be such a thing as a diathetic eczema. Admitting the probability of its existence, Pusey, Bloch, and other authorities have, nevertheless, maintained that no one has been able definitely to prove it. Often conditions which had been thought to be diathetic or constitutional eczemas eventually proved to be due to one form or another of external irritant; in other words, the so-called eczema turned out to be none other than a form of dermatitis venenata.

Successful etiologic diagnoses would more often result from viewing eczema in the light of dermatitis venenata than in the light of a substantive cutaneous disease entity or even as the cutaneous manifestation of a constitutional (diathetic) condition.

The view that eczema is a specific disease entity is as outmoded and archaic as is that of regarding dyspepsia as a true disease entity, for eczema is no more a specific entity than is dyspepsia. Both are merely symptom complexes arising from simple inflammation—in the one case, simple dermatitis and in the other, simple gastritis. Several years ago, I drew an analogy between these 2 conditions—historically, clinically, pathologically, and etiologically—and argued that even as dyspepsia now is no longer considered by internists as a true disease entity, neither should eczema be so regarded by dermatologists. I observed that eczema is to cutaneous medicine what dyspepsia is to internal medicine, and suggested that eczema might be regarded as the dyspepsia of dermatology.

Clinically and pathologically, eczema is merely a simple dermatitis, and a careful history and study of all cases of so-called eczema will usually reveal an external factor as the specific precipitating cause of the condition. In other words, eczema is identical with dermatitis venenata. To make an unqualified diagnosis of eczema is inadequate and confusing—inadequate because the all-important factor of etiology is omitted, and confusing because it seems to connote something which is not. The problem of eczema would be much less formidable and discouraging if it were understood to connote merely a dermatitis venenata.

HOWARD FOX (New York City): In regard to eczema, I agree with Dr. Hollander about calcium, my experience with this drug having been very disappointing. There can be no doubt about the importance of history-taking in eczema as the disease is usually an allergic affection. Even professional allergists agree that a complete and careful history is half the battle in trying to discover the causation.

DR. BACKUS-JORDAN (in closing): In the light of what Dr. Fox has said about calcium, perhaps it is best for me to keep quiet. It is very well known that there are certain cases of contact dermatitis in which there is a definite sensitivity. In those cases it is important to do a patch test. In a large group of cases in which there is a generalized sensitivity, it is possible to secure a positive patch test on a normal area of skin.

RENAL AND URETERAL ANOMALIES*

PETER P. MAYOCK, M.D., WILKES-BARRE, PA.

The frequency with which urogenital anomalies occur and the rôle they play in renal pathology is sufficient explanation for presenting this subject. Urogenital anomalies play a far greater rôle in renal pathology than is mentioned in the literature; hence, the subject is presented rather from a standpoint of its practical value than from its scientific significance.

This study shall be limited to the upper urinary tract, namely, the kidneys and ureters, as a consideration of the urogenital system would be too comprehensive to permit of any detailed discussion.

Although the incidence of urogenital anomalies has been placed second to anomalies of the osseous system, based upon gross necropsy studies, it is our opinion that a revision of this classification might be necessary if retrograde and excretory urographic studies were made and if the necropsy studies were based on histopathologic findings.

The complexity of the embryogenic development of the urogenital system is of itself sufficient explanation for the many unusual and sometimes grotesque malformations so frequently encountered. No other system of the body presents such developmental peculiarities. Instead of one set of urinary organs developing and persisting, 3 sets develop at different stages of embryonic life in the human. The first or pronephros is of importance only in that it furnishes the ducts of the second organ or mesonephros. Aside from this the pronephros disappears entirely. The second set, the mesonephros or the wolffian body, act as functional organs only during the early stages of their development; they atrophy and disappear coincidentally with the appearance or the development of the kidneys or metanephros. This degeneration of the mesonephros begins at the sixth or seventh week, and at the end of 4 months little remains but the ducts and a few tubules. The third set or metanephros arises as a bud from the preëxisting mesonephros, and from this third structure the adult kidney develops.

Another important consideration in the development of the kidney is its migration, rotation, and blood supply. The kidney begins its development at about the level of the second sacral vertebra, and as the embryo grows it

gradually ascends out of the pelvis to its permanent position under the ribs. During the process of ascent the kidney pelvis rotates from the ventral surface of the organ toward the midline describing an angle of about 90°. In this ascent out of the pelvis the organ may be arrested at any position from the second sacral vertebra to its usual position in the flank, and failure to rotate from the ventral surface toward the median line may likewise supervene. No vascularization of the kidney occurs until it has reached its permanent position, and an abnormally arrested kidney seeks the nearest blood supply. Hence, in ectopic kidneys the vessels may come from the iliac, midsacral, or inferior mesenteric arteries.

Lau and Henline, in a paper on "Ureteral Anomalies" read before the Section on Urology of the American Medical Association at Detroit in 1930, say: "It is not difficult to understand why anomalies in the urogenital system are so common, if one considers its complicated development. The derivation from both mesoderm and entoderm, passing through the stages of pronephros, mesonephros, and metanephros, the migration of the kidney from the pelvis to the lumbar region, with its rotation around its longitudinal axis, and the complexity of the development of the renal vascular system with its various transformations, permits one to conceive of the possibilities of abnormal development. Patients may go through life without the knowledge that a ureteral anomaly exists unless some pathologic process intervenes. However, pathologic conditions are more prone to develop when an anomaly already exists."

In classifying or typing the various kinds of renal anomalies, the simplest and most practical grouping, although it does not adequately cover the subject, is that which includes number, form, position, structure, and vascularization.

Considering renal anomalies of number, the variation may be one either of excess or deficiency. Bilateral absence, of course, presupposes a nonviable monster. Unilateral absence or single kidney is not uncommon and is due to failure of development of the renal bud. In 90 per cent of cases the ureter is also absent; in 10 per cent, rudimentary. Developmental defects of excess, namely, true supernumerary kidneys with separate ureters and blood supply, are rare. Fusion anomalies with separate ureters leading

* Read before the Section on Urology of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 2, 1934.

from separate pelves are relatively common and will be considered elsewhere.

Anomalies of form are in most instances fusion abnormalities, the commonest of which is the well-known horseshoe kidney. In the typical horseshoe kidney the 2 kidneys lie a little lower than their usual normal position and their lower poles are fused together with a band of fibrous tissue or by an isthmus of renal tissue. The great vessels lie behind the isthmus and the ureters pass in front. Sometimes the fusion occurs at the upper pole and rarely both upper and lower poles are fused forming a circle or ring.

A very valuable monograph has just been published by Dr. Gutierrez on the clinical management of horseshoe kidney. He believes the urographic era of diagnosis will, as time goes on, markedly increase the frequency with which horseshoe kidney will be diagnosed *in vivo*. Necropsy findings, he says, before the era of urography, placed the incidence of horseshoe kidney at 1 in 1000. Under systematic urographic examinations it has increased *in vivo* to 1 in 400. He regards the simple horseshoe system as an affection characterized by a syndrome composed of 3 groups of symptoms: (1) Pain or neuralgia of the epigastric or umbilical region, sometimes of the lumbar region; (2) gastrointestinal disturbances, especially chronic constipation, dating from childhood; and (3) urinary disturbances supervening in crises.

Papin in his foreword of the monograph says that this description of the syndrome is a new conception and represents real progress in the study of horseshoe kidney. The description of what Dr. Gutierrez calls the triangle of the horseshoe kidney is another progressive step in urographic diagnosis of this condition. If the calices of the 2 kidneys nearest together are joined by a horizontal line, this represents the base of the triangle. If the ends of this line are joined together by a line drawn obliquely downward to the point where the bisiliac line intersects the median line, this gives the 2 sides of the triangle. In normal kidneys the lower angle of this triangle is about 90° , while in the horseshoe kidney it may be as little as 20° . The angle is formed by the approximation of the lower poles one to the other.

Considering anomalies of position, it is important to distinguish between ectopic kidneys, which are congenital, and movable kidneys, which are usually acquired. An ectopic kidney is one which has never completed its migration to the lumbar region, has a short ureter, and may show evidence of failure of rotation as well as

diverse types of vascularization depending upon its location. Movable kidneys are usually attached in a normal way, but on account of the unusual length and looseness of the attachments and the laxity of perirenal fascia and fat the vessels are elongated and the ureter while of normal length may be tortuous, angulated, or kinked. If an ectopic kidney lies on its proper side of the body, it is known as simple dystopia; if both kidneys lie on the same side, as crossed dystopia.

Structural anomalies may be considered under congenital hypertrophy, congenital hypoplasia, atrophic kidneys, and polycystic kidneys. Congenital hypertrophy is present when the opposite kidney is absent or atrophic. Unlike the kidney of acquired compensatory hypertrophy, there is an increase in the number of glomeruli and connecting tubules as well as an enlargement of the pelvis. Congenital hypoplasia is not rare, and although the organ is small it usually shows evidence of fetal lobulations and sometimes solitary or multiple cysts. Atrophic kidneys are rare. A pyelogram and a divided phthalein test will usually reveal the condition. Polycystic kidneys form a most interesting chapter in renal pathology. The theory of their formation is still debatable. While they are supposed to be present at birth, they may not begin to grow until after middle age. They are usually bilateral, and a familial or hereditary history can be obtained. The finding of a palpable tumor, frequently bilateral with an elongated and irregular surface, and the typical pyelogram showing the elongated pelvis without any dilatation are great aids in diagnosis.

Vascular anomalies are of great importance, and additional vessels are the most frequent abnormality. These accessory vessels usually enter the organ at the poles, most frequently at the upper, where if not recognized and clamped they may cause troublesome hemorrhage while an attempt is being made to free the upper pole. Accessory vessels entering the lower pole frequently constrict and kink the ureter at the ureteropelvic junction causing hydronephrosis, which if allowed to go on unrecognized may eventually destroy the organ.

Vascular anomalies are greatly underestimated and their importance and significance not thoroughly appreciated. A review of our last 25 nephrectomies reveals that, in 8 cases or 31 per cent, the causative factor was an anomalous vessel at the lower pole of the kidney, causing pressure or kinking at the ureteropelvic junction and giving rise to hydronephrosis, sometimes pyonephrosis, and occasionally calculous forma-

tion. A review of the histories discloses several significant facts:

1. They all dated the beginning of their trouble to early adolescence, *viz.*, age 12 to 16.

2. Dull backache on the affected side was noted by all.

3. Renal colic crises of varying degrees of intensity were noted in 7 of the 8 cases.

4. In 7 of the 8 cases the trouble was right-sided, and they had all had appendectomies with no relief of symptoms.

5. Pyuria, either intermittent or persistent, was noted in every case.

In every one of these cases an earlier diagnosis could and should have been made; this would have permitted a more conservative surgical procedure.

Although the kidney itself may show no abnormality, very frequently the ureters and pelves are anomalous. Considering anomalies of number, there may be a unilateral or bilateral absence of ureters due to an agenesis of the ureteral bud. Supernumerary or double ureter is one of the most frequent of the urogenital anomalies and may be unilateral or bilateral, complete or incomplete. The frequency of ureteral duplication as estimated from necropsy findings is from 3 to 4 per cent. The kidneys associated with duplicated ureters are either double or free supernumerary. The double kidneys are elongated and sometimes constricted in the middle, sometimes joined together by only a thin band of tissue. The pelves are completely separated one from the other with fewer calices than normal, one situated above the other, the upper smaller than the lower and containing fewer calices; the functional capacity of the 2 are usually equal, and together they equal the capacity of the opposite kidney. In incomplete duplication the ureters fuse at some point between the pelvis and the bladder. Another type of incomplete duplication is that in which the bifurcation is at the lower end with 2 forks terminating in separate ureteral orifices, the upper portion being only a single ureter with a single pelvis and kidney. Many cases of ureteral duplications have no clinical significance. However, since they are more subject to pathologic changes than normal structures their recognition and classification are very important.

Anomalies of position of the ureter are usually associated with renal anomalies such as supernumerary, ectopic, and different types of fusion anomalies.

Anomalies of the ureteral lumen, such as strictures and stenoses, kinks and valves, may result in hydronephrosis or atrophy of the kidney.

Anomalies of implantation, including those cases in which the ureteral orifice is found in some other organ than the bladder, *viz.*, the ejaculatory ducts, prostatic urethra, anterior urethra, vagina, rectum, perineum, *etc.*, are worthy of consideration, and it is well to remember that such an abnormally terminating ureter is usually a supernumerary one. Ureters which have an anomalous insertion into the bladder and ureters which do not enter the pelvis at its most dependent portion, coming from the upper portion of the pelvis, or coming off from it at an unusual angle, are prone to cause considerable trouble and usually do.

True acquired stricture of the ureter caused by invasion with bacteria of certain portions of the ureteral wall secondary to focal infections is rare. Ureteral strictures secondary to renal tuberculosis, those due to pressure from calculi, those due to disease of contingent and adjacent tissues, and those of traumatic origin are so well recognized as to admit of no controversy. Why a hollow muscular tube lined with pavement epithelium should be subject to focal infection lacks a logical background for its explanation. An anomaly is the real basic factor in many of the cases of hydro-ureter and hydronephrosis studied by urographic and necropsy findings and classified as being due to ureteral stricture. Histopathologic studies of these same cases would undoubtedly give a true picture of the rôle played by anomalies in this controversial subject.

Kretschmer and Hibbs, in a paper published in the *Journal of Surgery, Gynecology, and Obstetrics* of August, 1933, reported a histopathologic study of 15 cases of infants and children who had died from hydronephrosis and hydro-ureter due to obstruction at the lower end of the ureter. They attempted to determine whether or not the obstruction was due to stricture in the generally accepted interpretation of that word. This is a summary of the findings:

1. Stricture of the ureter in the generally accepted term, producing hydro-ureter and hydronephrosis, was present in only 3 cases, all of which had an anomalous insertion of the ureter.

2. In the 12 remaining cases the obstruction was due to hypertrophy of the muscular coat of the ureter (longitudinal fibers).

This hypertrophy of the longitudinal fibers, they believe, is due to overwork in an attempt to overcome obstruction at or in front of the bladder, which obstruction was congenital in origin due to median bars or congenital valves.

Studies of this type give a true picture of the rôle played by anomalies, and it is only by means of such studies that we shall be able to evaluate

and classify congenital anomalies as a factor in renal pathology.

38 North Franklin Street.

ABSTRACT OF DISCUSSION

J. B. PURCELL (Wilkes-Barre): Renal anomalies are always interesting from a pathologic viewpoint and also in the bearing they have on surgical procedures. They play no small rôle in kidney disease and are prone to develop surgical complications as a result of urinary obstruction. With present-day methods of examining the urinary tract, especially excretory urography, vague pains in the back, abdomen, and pelvis should no longer be considered causes for exploratory surgery without the previous elimination of the possibility of urinary tract involvement.

Dr. Mayock has given the salient points in the diagnosis of horseshoe kidney. Any patient presenting this triad of symptoms is worthy of further study, which should result in an increase of recognition of the condition. Frequently this condition is associated with some defect in the general constitution or accompanied by anomalies in other organs. Malformations of the vagina, uterus, bladder, or rectum often accompany congenital defects of the kidney. This is not to be wondered at when the intimate relationship of these parts is recalled. No abdominal arteries are more irregular in their distribution than are those which supply the kidneys. They vary in number, origin, and mode of entrance into the kidney.

Fetter, in a paper read before the Section on Urology of The Medical Society of the State of Pennsylvania

at its meeting in 1930, reported 44 per cent vascular anomalies in 168 kidneys examined. Campbell states that complete urologic study should be made on all children in whom pyuria persists after 4 weeks of intensive medical treatment, with the elimination of all possible foci of infection. By urologic examination of 5 children with persistent pyuria and 2 with nephritic hematuria accompanied by pain, the cystoscopic indications were discovered, and a diagnosis of aberrant blood-vessel obstruction of the ureter was made and confirmed by operation.

It is hard to understand why the ureter, which is not a highly specialized structure, should be so prone to infection and stricture formation. Vermoaten and Wheeler have shown by microscopic examination that, after partial ligation of the ureter in dogs, the most marked changes in the ureter had taken place in the muscular layers. These changes were hypertrophy and hyperplasia of the muscle fibers. It may be presumed that these changes are the result of the efforts of the ureter to expel its contents against an increased resistance. This resistance may be due to one of the ureteral anomalies mentioned by Dr. Mayock.

DR. MAYOCK (in closing): The subject of anomalies is most interesting, but urologic literature does not stress them sufficiently. Nowhere in the literature are anomalies stressed as a cause of pathologic conditions in the kidney. With such articles as the one quoted of Dr. Kretschmer, and with better methods of study, however, we shall look more closely for anomalies as a factor than for other conditions which have been emphasized.

FRACTURES OF THE SHAFT OF THE FEMUR*

SAMUEL P. MENGEL, M.D., WILKES-BARRE, PA.

Fractures of the shaft of the femur are common injuries and, generally speaking, most difficult to treat. With care good functional results may be obtained. Perfect anatomic results are most rare. It is important that the conveyance of these cases from the place of injury be made only after a careful, painstaking emergency dressing is completed. The Thomas splint makes an ideal dressing for this purpose if carefully applied. Unfortunately it is not always available, and often it becomes necessary to devise a transportation splint and first aid dressing. The object of a proper emergency dressing is to fix the knee and hip joints in the extended position, thus preventing added shortening and additional damage to the soft parts by the fractured ends of the bone and allowing the patient to be transported with the greatest degree of comfort and safety. No effort to reduce the fracture should be made at this time.

The treatment of fractures of the femur should, if possible, be carried out in a hospital.

and with a proper emergency dressing applied the transportation to the hospital will do the patient no harm. The permanent treatment should be instituted at the earliest time possible after admission. As a rule, shock is not so severe that treatment cannot be begun at once. In exceptional cases in which other injuries exist or in which shock is severe, treatment may be delayed until the patient has recovered from his shock.

Roentgen-ray examination of the fracture must be made for diagnosis and also to protect the surgeon medicolegally. The roentgenogram will reveal the presence of fracture, make the solicitation of crepitus unnecessary, and give a knowledge of the type of fracture present, such as transverse, oblique, spiral, comminuted, or multiple. On account of the frequency of multiple fractures of the femur, the entire shaft should be included in the first roentgenogram, taken anteriorly, posteriorly, and laterally.

Fractures may occur in any part of the diaphysis of the femur and, if complete, always develop one or more of the deformities—rotation,

* Read before the Section on Surgery of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 4, 1934.

angulation, and overlapping. These result from gravity and muscle pull, both always being present. Shortening is due to tonic contraction of the hamstring and rectus femoris, 2 opposite sets of muscles attached to the pelvic bone above and inserted into the tibia and fibula below. The numerous muscles attached to the femur itself play very little or no part in the production of shortening. Muscles also play a very important rôle in the position of the fragments in fractures of the femur. The displacement varies considerably, depending upon the location of the fracture. In fractures of the upper third, above the lesser trochanter, the upper fragment is usually abducted and rotated outward by the gluteal muscles, while the lower fragment is drawn upward by the hamstrings and rectus, and inward by the adductors. Below the lesser trochanter, displacement is caused by the abduction outward, rotation, and flexion of the upper fragment. The lower fragment is drawn upward and inward. Fractures in the middle third have a variable displacement, which follows no regularity. The fracturing force often determines the resulting displacement. In the lower third, the lower fragment is usually displaced backward by the action of the gastrocnemius. In fractures of the shaft of the femur, the lower fragment is almost constantly displaced posteriorly and upward in relation to the upper fragment.

Preservation of the weight-bearing axis of the leg is equally as important as preserving its length. It must be remembered that the femur viewed laterally has a decided curve, with its convexity forward. This bowing, if increased or decreased, will result in the weight-bearing line of force falling either posterior or anterior to its normal position in the foot. If viewed anteriorly and posteriorly, the shaft shows a second curve with its convexity pointing outward. The treatment of fracture of the femur must aim to overcome the forces of gravity and muscle pull, and maintain the normal anatomic lines of the bone as far as possible. It must aim to correct the deformity and maintain the corrected position until union is complete. For this purpose continuous traction or traction and suspension has no comparable rival. Treatment by plaster, bandages, and casts and by open operation have their advocates, but in the large majority of cases, traction carefully and intelligently applied and properly supervised will give satisfactory functional results.

Plaster casts or spica bandages cannot be relied upon to hold a fracture of the femur properly. With the exception of cases of greenstick fractures (incomplete in adults) and perhaps some cases in children, their use will be disap-

pointing. Even if the plaster is applied by experts, there is always a tendency for the cast to slip upwards and it is almost impossible to prevent overlapping of the fragments later even though strong traction is applied when the cast is put on. Interference with the circulation is apt to occur if the cast is applied early after the injury and tightly around the thigh, resulting in delayed callous formation and muscular atrophy. The cast may become so loose in a few days after its application that its purpose is defeated. Muscle pull continues, and it is practically impossible to maintain the extension of the leg even with a good reduction of the fracture. This continued muscle pull will often reproduce the deformity previously existing so that a good result, shown roentgenologically after the application of the cast, is often a poor result in a week or two, or when the cast is removed.

A number of our cases were treated by the Buck's extension, others with the Thomas splint, some by the Russell method, quite a number by skeletal traction, and a few by plaster casts. No one method can be adopted for all cases. Thorough examination of the patient, the fracture, and the roentgenograms will usually determine whether an anesthetic is necessary and aid in deciding what splint or method is best adapted to the treatment of the particular case. Whatever method is used, the result will depend more upon the surgeon behind the splint than upon the splint or method itself.

The correction of angulation, overlapping, and rotation is comparatively easy in many cases providing treatment is instituted early and sufficient traction is exerted. In muscular individuals 30 or even 40 pounds may be necessary to overcome the muscular spasm and straighten out the fascial plane, thus reducing the overlapping. The first aim in the treatment of fractures of the femur is to pull out the muscles to their correct length. To accomplish this, traction should be applied to the leg and not extended up the thigh as is so often seen. When this is accomplished, the fragments and every other structure in the thigh usually resume their normal positions: this does not mean correct anatomic apposition of the fragments, which is not considered essential to a good functional result. We have had little difficulty with interposed muscular tissue causing delayed union or nonunion. Usually the soft tissues under tension, when pulled out and straightened, will allow the ends of the broken bone to resume their normal position and union will take place. The longer the delay in treating a fracture of the femur, the greater the amount of traction required to overcome the muscle pull and restore the fascial

planes of the thigh. Therefore, early increase in weights and pull will frequently succeed in bringing the fragments down. Darrach of New York says, "Adjustments should be made by the hour rather than by the day." After reduction is accomplished, the weights may be gradually reduced.

The details of applying traction will vary according to the conditions present in the individual case. The lower fragment, in the majority of instances, can be more easily controlled than the upper one. It, therefore, will be necessary in some instances to bring the lower fragment into such position that its axis will correspond with the axis of the upper fragment and traction exerted in this axis or direction. It will frequently be necessary to make repeated roentgen-ray examinations during the time alignment of the femur is being secured. Satisfactory reduction of the fracture after the application of traction and suspension should be expected within the first few days.

If skin traction proves insufficient and if the location of the fracture indicates, skeletal traction with the tongs or Steinmetz pin should be used. Skeletal traction is complicated and difficult, and should be used only by skilled hands with the most aseptic technic. However, if used skillfully and aseptically, with a thorough understanding of the result to be accomplished, it is perhaps the most satisfactory method of treatment in use to-day. Dennis W. Crile says, "No case of sepsis has been seen in more than 300 cases which amounts to more than slight local inflammation." If properly applied, it should correct the shortening, bring the ends of the bone into apposition, and the axis of the femur into the proper weight-bearing line for the individual. Flexion of the hip or knee, abduction of the leg, counterpressure or countertraction on the fragments are at times essential if the end result is to be a satisfactory one. Maximum traction should be applied early, and the skeletal traction continued only until the fragments are held firmly by callus.

In compound fractures of the femur, permanent partial disability has been usually considered almost unavoidable. No doubt the treatment of the wound has interfered too much with the methods of treatment of the fracture itself. In these cases the fracture should be reduced and suspension and traction applied by the best method adaptable to the case and the wounds dressed while the leg is being held in suspension. This can usually be done.

Comfort must be considered essential in the successful treatment of a fracture. No apparatus

or method can be considered good unless it is perfectly comfortable to the patient. Comfort usually means rapid union and discomfort delayed union or nonunion. Hamilton Russell of Australia says, "In a limb previously normal that is rendered perfectly comfortable in a natural position, muscular action is never the cause of displacement of fragments. Malposition of fragments usually results from an unnatural position, faulty dressings, gravity, and discomfort."

Regular periodic inspections or examinations should be made not only of the patient but also of the leg and its length. This is important in the prevention of outward bowing, the prevention of rotation of the leg and lower fragment outward below the seat of fracture, and the prevention of sagging backward of the thigh at the seat of fracture. Careful mobilization of knee and ankle joints is also important.

While adjustments and inspections are necessary and must be made at intervals, too much meddling is to be condemned. Repeatedly taking down the fracture and putting it up again, which is frequently done as often as 6 to 10 times in order to secure perfect anatomic apposition or an alignment to correspond to what the roentgenogram demands as a good result will often be harmful to the patient and produce an unsatisfactory result. In normal healthy bone, repair is active in from 8 to 10 days. At the end of the third week there will be perceptible evidence that the fragments are beginning to unite. At the end of the fourth week considerable consolidation will have taken place, and at the end of the sixth week consolidation is usually complete. If callus once formed is broken up, it will never form so rapidly again and repeated breaking will result in delayed union or nonunion.

The opening of a simple fracture and its conversion into a compound one is a measure to be deplored, but there is a wide difference of opinion as to the reasons for this procedure. Hamilton Russell says, "We hold that there is only one circumstance that can justify such surgical procedure, that is, mechanical impediment to the reposition of the fragments. To put it concisely, the purpose of the operation must be only to enable fragments to be brought into position, and the operation is not justified when its purpose is merely to keep them there." It has been said that the only method by which one can be sure of no shortening is open operation, and yet we frequently see $1\frac{1}{2}$ inches shortening after operation. Sepsis and necrosis, which occur at

times, usually leave horrible cripples of these patients.

If the same amount of intelligence and skill is used in securing and maintaining alignment and adjustment as in operating, good functional results will be obtained, better in the end than by resorting indiscriminately to open operation. Open operation or reduction is indicated only if repeated attempts at reduction by other measures fail to bring the fragments into position.

Of the 84 cases of fracture of the femur tabulated, 62 occurred in males and 22 in females. Fifty-three occurred between ages 1 and 10, 8 between ages 10 and 20, 4 between ages 20 and 30, 4 between ages 30 and 40, 6 between ages 40 and 50, 6 between ages 50 and 60, and 2 between ages 70 and 90. Six deaths occurred, 4 from shock, 2 having lived only 2 or 3 hours after the time of the accident, and all 4 having died within the first 24 hours after admission to the hospital. In all 4 of these cases the fracture was accompanied by other severe injuries, such as fractured legs, pelvis, and spine, and internal injuries. One patient died of pneumonia and one of cerebral embolism. Unfortunately not all of these patients were measured accurately for shortening before they were discharged from the hospital. We find notes of "walks well" in 30 cases. Shortening was recorded from one-eighth of an inch to $1\frac{1}{4}$ inches. The average time spent in the hospital was 53.07 days. Thirteen patients left the hospital on release. There was but one case of nonunion in the series, and there were only 3 cases in which operation or open reduction was performed.

The period of disability in fracture of the shaft of the femur in adults is longer than is generally supposed. The compensation laws and the depression during the last few years have materially added to the length of this period. With the gates of industry closed and no available jobs to which these men may return, they naturally are prone to prolong the length of their disability. If application is made to terminate their agreement, they usually appear with 1 or 2 medical witnesses to substantiate their claim and the verdict is almost invariably in favor of the defendant.

The end results in fracture of the shaft of the femur are far from satisfactory, and there is nothing new in the way of apparatus or methods to improve this condition. The surgeon should give these cases his personal interest and supervision. Although it may not be possible to attain perfect anatomic results, better functional results will be obtained than in the past and the

patients will be able to return to work with full earning capacity.

181 South Franklin Street.

ABSTRACT OF DISCUSSION

HUBLEY R. OWEN (Philadelphia): The majority of fractures that come under my care are those that occur to members of the Bureaus of Police and Fire in Philadelphia. We do not get very many acute fractures at either the Philadelphia General Hospital or the Woman's College Hospital. This is because of their geographic locality. They are not within the main traffic lanes. The suburban hospitals now receive more severe cases of fractures than the city hospitals.

I cannot altogether agree with Dr. Mengel's remarks concerning the use of plaster of paris and the use of Buck's extension. We never use Buck's extension except occasionally in fractures of the neck of the femur in elderly patients. We do use plaster of paris. Our ambulances are now equipped with the Keller-Blake or the Thomas half-hinged splint for the emergency fixation in cases of fracture of the femur. The patient is taken immediately to the Roentgen-ray Department and, after roentgenograms have been taken, is transferred to the fluoroscopic room. If the condition of the patient will permit, an anesthetic is given, the fracture reduced, and the extremity placed in a plaster of paris cast. If the fragments cannot be held in reasonably good position by this method of treatment, skeletal traction with the Steinmetz pin is the method of choice. The Steinmetz pin is preferred to the calipers or tongs. The latter are more prone to slip. As yet, my experience with Kirchner wire in fractures of the femur is limited. I used it in one case of fracture of the femur in a very muscular, heavy fireman. Considerable weight was necessary to overcome muscular resistance. The wire started to migrate or tear through the bone and soft tissues and had to be removed.

I have never used the Soutter apparatus. Rapid reduction by the use of this instrument never seemed to be a logical surgical procedure. If the application of this traction is made in a scientific manner, it is probably satisfactory.

My experience with the Anderson well leg traction splint is also limited. I have used it for fracture of the neck of the femur and intertrochanteric fracture but never for fracture of the shaft; however, it is practicable for fractures of the shaft of the femur.

One should try conscientiously with conservative means to reduce fractures. If the reduction cannot be accomplished at the end of 4 or 5 days, certainly within 10 days, one should resort to open reduction. We use the Sherman plate in early cases and bone transplant in the late cases, especially those who come to us with delayed union or nonunion.

Laymen are becoming fracture-minded. They are now very insistent upon roentgen-ray pictures being taken. Good results in fracture work can be accomplished only by teamwork and careful individual supervision of each fracture. Emergency splinting and immediate reduction, with or without an anesthetic, will produce the best results. Teamwork is essential. Fractures, especially severe fractures, are emergency cases. It is just as imperative that a severe fracture be treated as an emergency as a case of acute appendicitis or a ruptured duodenal ulcer. Surgeons should have their associates so trained that they can carry on the work in their absence.

DUODENAL ULCERATION IN A 5-YEAR-OLD BOY*

Case Report

NORBERT D. GANNON, M.D., ERIE, PA.

The pediatric emergency reported herewith is interesting because of the massive, profuse hemorrhage resulting in death despite heroic measures, and because of the infrequency of the condition in pediatric literature. There are very few cases of primary duodenal ulceration in childhood on record. A study of this condition is of value to clinicians; its occurrence is uncommon, yet it is more frequently existent than supposed or diagnosed.

The chief and only complaint was the vomiting of blood with its attendant weakness and restlessness. The boy, age 5, was perfectly well until midnight preceding his death, when the parents noticed that the child did not look well and had a slight cough. He rested fairly well until about 6 a.m., when he suddenly awakened and began to vomit what appeared to be dark clotted blood. This continued in varying amounts and at irregular intervals throughout the morning, but was always of the same consistency and color. The parents did not regard it as alarming, thinking that the vomitus was plums which had been eaten freely the afternoon previously.

It was not until 1 p.m. that I was called, after another severe massive attack of hematemesis had occurred, accompanied by pallor, weakness, gasping for breath, and yawning. The child was prostrated. Thromboplastic serum was administered, and he was removed to the hospital. On admission the temperature was subnormal, he was extremely pale, the skin cold, the pulse weak and thready, and he was restless. Ulceration was suspected and a surgeon called, but the condition of the child did not warrant surgical interference at the moment. A direct blood transfusion was done.

Other than the hematemesis and collapse there were no other findings. The boy was conscious and restless; the pupils were dilated and the mucous membranes pale; the mouth and throat were negative with no findings in the lungs, although the respirations were deep. Myocardial tone was fair but the pulse was of poor volume and rapid, a systolic murmur being heard to the left of the sternum, not transmitted. There was excessive thirst. Examination of the abdomen revealed no mass or tenderness, nor any evidence of fluid in the peritoneal cavity. All other physical signs were negative.

The past history gave a vague indication of the presence of ulcer and the cause of the hemorrhage. He had had measles, chickenpox, scarlet fever, and an occasional cold. He gave a definite history of epigastric pain of cramplike character which had been existing for the past year intermittently, but due to the excellent physical condition of the boy, the parents did not consider these cramps seriously or seek the advice of a physician. He never vomited before, and no blood was ever detected in the stools. There had been no food dyscrasias. These cramplike attacks, which were in-

frequent, came on exercising or fatigue and would be relieved by hand pressure over the epigastrium, bending over, or flexing the legs on the abdomen.

Immediate treatment consisted of small doses of morphine and attempted hemostasis by thromboplastin. Phenobarbital was also administered. In the hospital, transfusion was given at once by the direct route, the mother being the donor. After the first transfusion the child rallied and it looked as if operation might be possible, but within an hour he again vomited a large amount of clotted blood which was streaked with some fresh blood. This was followed by a second transfusion, by the citrate method, the mother again being the donor. There was no direct response. Saline hypodermoclysis was also used during this emergency. He steadily failed and died early that evening.

A partial necropsy was done. An incision was made through the right rectus, exposing the upper peritoneal cavity and its contents. There was nothing significant about the appearance of the peritoneum, there being no fluid and the organs presented their normal relationship and appearance.

The stomach appeared to be normal, there being no scars near the pylorus. A careful search of the duodenum distal to the pylorus was made, but no scars or thickening were found. The upper ileum contained considerable blood, which could be seen through the serosa. An incision was made through the stomach proximal to the pylorus. The stomach contained some clotted blood and the mucosa seemed considerably congested, but otherwise there was nothing significant. This incision was extended through the pyloric ring into the duodenum. The duodenum also contained considerable clotted blood. On first examination there was no evidence of any ulcer. Careful search was made, and only after the duodenum was spread apart and put on a stretch, was the lesion exposed. This consisted of what appeared to be 3 linear scratches through the mucosa. The ulcers were close together about an inch from the pylorus on the posterior wall of the bowel. They were about one-half inch in length and the appearance was exactly that of a scratch as though a pin or similar instrument had been used. There was no thickening of the edges or infiltration in this area.

The father would not give permission to remove any tissue or structures and insisted upon being present at the necropsy.

In searching pediatric literature for records of primary ulcers of the duodenum it is worthy to note that most authorities have seen very few cases in childhood. However, all are agreed that the condition exists much more frequently than suspected and that most duodenal ulcerations with hemorrhage occur in very young infants, usually those of the marasmic or atrophic type.

With profuse hemorrhage, as seen in this case, many conditions other than ulceration were considered, but they were readily eliminated. Some of the conditions having ulcers associated with bleeding are decomposition, ileocolitis, typhoid

* Read before the Section on Pediatrics of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 4, 1934.

fever, syphilis, tuberculosis, purpuras, scurvy, leukemia, perforation in appendicitis, collapse of intussusception, *etc.*

In tuberculosis there is usually involvement elsewhere. The ulcers may be of variable size and vary in number from 5 or 6 to 40 or 50 and seldom perforate. They are irregular with rounded borders.

The incidence of duodenal ulceration after age 2 is .06 per cent, or 17 in over 1200 necropsies, according to Griffith. These are single or multiple, with sharply defined margins and located on the posterior wall, as in the case reported. They may be on the mucous membrane or extend through to the serous layer and may perforate. Symptoms are usually lacking, but there may be previous hematemesis, bloody stools, and pain in the abdomen to the right of the midline just below the liver. In cases without premonitory symptoms, there may be sudden hemorrhage and collapse with or without perforation as herein mentioned. This case did not perforate.

Kerley states that the few he has seen were multiple ulcers on the mucous membrane of the stomach and not the duodenum. He has never seen them perforate. In ulcerative colitis small, superficial, round, yellow, sharply defined ulcers are seen surrounded by an inflammatory zone. They grow larger and coalesce. In this case, however, there was no picture of this nature. He speaks mainly of gastric and not duodenal ulcers.

According to Morse, ulcers of the stomach and duodenum in children are similar to those of adult life, but very uncommon. The real condition is seldom realized as children cannot describe symptoms accurately and consequently the condition is never suspected. Hemorrhage and perforation occur, and the treatment is the same as for adults. Some writers disagree and state that these ulcers in children do not produce the classic symptoms as noted in adults. They maintain that continued abdominal cramps or gastric distress constitutes the sole subjective evidence, as in this case in which medical attention was not sought as the pains were minimized because the boy was extremely active and healthy.

Duodenal ulcers in childhood are more common than the gastric types according to Holt's survey, and most of them are seen in early infancy, usually in the marasmic infant. Many of the cases have single ulcers which are circular with sharply defined edges. Usually large clots of blood are found in the stomach and small intestines. These findings are seen at necropsy. In other children localized pain and

tenderness is of value in determining the presence of an ulcer.

DeToni reported an almost identical case in which several attacks of profuse gastric hemorrhage occurred, followed by death, operation being inopportune due to the serious loss of blood and the rapid clinical course. The only difference was that in DeToni's case the ulceration was found on the posterior wall of the stomach and not of the duodenum.

Most writers and pathologists report the majority of these cases in infancy and very few in early childhood. Neff says they are rare and uncommon because they are not looked for or considered possible, and he reviews many cases found at necropsy. In the early weeks of life the vomiting from ulceration suggests pyloric stenosis. Ulcers should be considered in any marantic infant with vomiting and particularly hemorrhage.

According to Abt duodenal ulcers are more common than gastric ulcers. In order to be found at necropsy, he suggests that it be performed early after death or the ulcers will be overlooked. The diagnosis is aided by occult blood in the stool and vomitus.

Although gastric and duodenal ulcers in infancy and childhood are regarded as rare, they are increasing in number because more readily recognized. Theile reported over 348 cases under age 16, mostly in infants. Of these, 120 were gastric and 185 duodenal, and equal in either sex. Ulcerations in the newborn have been recognized for a long time, but not those of childhood. In older children the condition may be practically symptomless and result in sudden hemorrhage and death, as in this case in which mild epigastric pain prevailed and was easily relieved, yet ended in bleeding and death.

At operation and necropsy well-defined lesions are found. With these possibilities the future symptomatology of this type of disease will be clarified so as to make the condition recognizable as a clinical entity. Surgical therapy will be indicated and should be successful. Blood transfusion is necessary for the treatment of hemorrhage and to prepare the patient for the shock of surgical interference when this is required. It may cause sufficient hemostasis to obviate surgical procedure.

What is to be learned from this case? To realize that primary ulceration of the duodenum occurs and to be on the alert to diagnose and treat it properly before the emergency of sudden hemorrhage arises. Ulceration should be suspected in cases of chronic abdominal pain or cramps in the growing child. The appearance

of blood in the stools and vomitus should cause us to eliminate all factors responsible for such symptomatology, at the same time keeping the possibility of ulceration in mind. When called to an emergency case with profuse bloody vomiting, with or without blood in the stools, consider first the presence of ulcer in the stomach or duodenum.

In infants who fail to thrive and who vomit persistently, with or without blood, and who experience pain or distress after foods, ulcer should be suspected until it is proven not to exist. In many cases, particularly in infants with melena, hematemesis, and decline, the presence of an ulcer is a possibility. Both of these

clinical entities may lead to massive hemorrhage and death.

I wish to review briefly a similar case of suspected ulcer in a girl, age 2. The first complaint was abdominal cramps and passage of dark clotted blood per rectum. This had existed for 4 weeks. Since first seen, at irregular intervals she passed blood by bowel, but never vomited blood. Occasional abdominal pain was noted. She was fully studied in the hospital, including a gastro-intestinal study by roentgen ray, a proctoscopic examination, *etc.*, with the diagnosis of duodenal ulcer being made and treatment instituted.

354 West Ninth Street.

MASTOIDECTOMY COMPLICATED BY ACUTE HEMORRHAGIC NEPHRITIS*

Case Report

ROBERT K. REWALT, M.D., WILLIAMSPORT, PA.

J. H. S., girl, age 4, became ill with a severe cold on Nov. 4, 1933. Her attending physician found the drum in both ears inflamed and called an otologist, who punctured both drums. Both ears drained; the discharge from the left ear ceased within a week, but the right ear continued to discharge accompanied by an irregular fever.

The patient was admitted to the Williamsport Hospital on Nov. 18, because of suspected mastoiditis (right). A roentgenogram of both mastoids showed the left one to be normal, but the right one was uniformly cloudy with no positive evidence of cell destruction. The urine was negative. The blood count showed: Hemoglobin, 74 per cent; leukocytes, 16,300; polymorphonuclear cells, 78 per cent; large lymphocytes, 5 per cent; small lymphocytes, 15 per cent; and eosinophils, 2 per cent.

A right mastoidectomy was done under gas anesthesia. The temperature which had fluctuated between 102° F. and 104° F. promptly subsided. On Nov. 22 it was normal and remained so until Nov. 30. The general condition appeared good. The patient voided well, and urinalysis done on Nov. 23 was negative.

On the night of Nov. 30 the patient's temperature rose to 103° F., the pulse was rapid and irregular, and the abdomen was distended. She was quite restless until 1 a.m., after which time she slept but perspired very freely. The temperature dropped to 95½° F. at 6 a.m., and the pulse was 72, weak and irregular. She looked shocked. The urine was examined that day (Dec. 1) and was negative. The blood examination showed: Hemoglobin, 70 per cent; red blood cells, 3,370,000; leukocytes, 27,000; polymorphonuclear cells, 81 per cent; large lymphocytes, 1 per cent; small lymphocytes, 18 per cent. That night the temperature rose to 104° F. The patient perspired freely, and early in the morning of Dec. 2 the temperature dropped to 96½° F. A blood culture taken on this date was nega-

tive. Later in the day the temperature rose to 104½° F., followed by profuse perspiration and a drop in temperature to 96½° F., almost 8 degrees within 12 hours.

Right lateral thrombosis was suspected and the patient was operated upon on Dec. 3, under gas anesthesia. The right lateral sinus was found to be normal. The urine on that date was dark red in color; urinalysis showed albumin and many red blood cells but no casts.

On Dec. 4 she was given a blood transfusion of 75 c.c. whole blood by the direct method. She did not void for 10 hours, then passed 120 c.c. of dark red urine. There was no reaction to the blood transfusion except a rise of temperature to 104° F. She passed only 300 c.c. of urine in 24 hours.

On Dec. 5 the temperature ranged from 96° to 102° F., but she voided only once, involuntarily. A small amount stained the sheet a dark red. She continued to have a septic temperature, ranging from 97° to 103° F., until Dec. 9, when the left ear drum was incised. During this time small quantities were voided (80 to 300 c.c. daily) of dark reddish to brown urine, which contained some albumin and pus cells and many red blood cells. Otherwise, she seemed to be comfortable. There was anorexia, and she perspired very freely.

On Dec. 10, the temperature was normal and remained so until Dec. 12. During this time the patient improved, took more fluid by mouth and voided more urine, which was lighter in color and contained fewer red blood cells. On Dec. 12 the temperature again began a septic course, ranging from 99° to 103° F. Blood culture on Dec. 15 was negative. On Dec. 19 the left ear drum was again incised.

A roentgen-ray examination on Dec. 20 showed cell destruction in the left mastoid. A blood transfusion of 180 c.c. whole blood was given by the direct method.

On Dec. 20 a left mastoidectomy was performed. After Dec. 22 the temperature decreased and varied from 100½° to 98° F. Perspiration became less marked. The daily intake of fluids averaged about 1500 c.c., with a daily output of about 1200 c.c. The urine contained a trace of albumin, and the red blood cells decreased decidedly in number.

* Read before the Section on Pediatrics of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 3, 1934.

She was discharged from the hospital on Jan. 10, 1934. The hemoglobin had reached 65 per cent; red blood cells, 3,950,000; and leukocytes, 9200. The mastoid continued to drain, the urine still contained red blood cells, and the afternoon temperature reached 100° F.; consequently, she was kept in bed at home for about 6 weeks.

The conditions improved and a final examination was made on July 23, 1934, at which time the physical findings were completely negative. The urine was negative except for an occasional red blood cell. Both mastoid incisions were completely healed.

Very little medication was used in this cure. The patient was given potassium citrate and diuretin without any appreciable effect. The blood transfusions undoubtedly enabled the patient to survive the serious illness. The question was vigorously debated as to whether there was a blood-stream infection. In spite of 2 negative blood cultures the otologist considered there was a blood-stream infection. Realizing it is pos-

sible to have a blood-stream infection with negative blood cultures, I believe that the primary focus of infection in this case was in the mastoids, which caused acute hemorrhagic nephritis.

Medical Arts Building.

ABSTRACT OF DISCUSSION

J. GIBSON LOGUE (Williamsport): In this case it would have been preferable not to have used any diuretic drugs.

MARY RIGGS NOBLE (Harrisburg): I wish to ask Dr. Rewalt what the result was in the hearing of that child.

DR. REWALT: The otologist stated that it was normal.

HARRY LOWENBURG (Philadelphia): I wish to ask Dr. Rewalt if he said that he withheld water from this case of acute hemorrhagic nephritis and, if so, why?

DR. REWALT: No, I did not say that.

HYDRONEPHROSIS—SPONTANEOUS RUPTURE*

Case Report

RALPH P. BEATTY, M.D., UNIONTOWN, PA.

Traumatic rupture of a hydronephrotic kidney is so unusual that the occurrence is usually reported. George H. Ewell, in the *American Urological Journal*, June, 1933, reviews the literature on the subject and reports an additional case. Spontaneous rupture of a hydronephrosis is exceedingly rare and worthy of publication. The following case is of this nature; if trauma was an immediate cause, it occurred while the patient was confined to bed and was not recognized.

The patient, J. T. Z., age 28, single, became suddenly ill about midnight, May 28, 1933, with a severe pain in the right lumbar region, radiating into the right testicle and accompanied by urinary frequency. The attending physician was called in and made a diagnosis of renal calculus colic and gave him one-half grain of morphine for the pain. Urinalysis the next day showed microscopic blood.

During the night of June 11, a second severe attack occurred, similar to the first one, and again required morphine for the pain. The pain recurred the next day and was still present when he was admitted to the Brownsville Hospital on June 13. On admission the temperature was 100° F. and the pulse rate 120. A blood count showed 4,600,000 red cells, 8000 leukocytes, with 66 per cent hemoglobin. Urinalysis showed microscopically a few leukocytes and erythrocytes.

On June 14, the pain in the right side was severe and continuous. Temperature, pulse, blood, and urine examinations were unchanged. An intravenous urography, using uroselectan, was done, the films being taken at 10, 30, and 70-minute intervals. There was no visual-

ization of the dye on the right side in any of the films, but a good pyelo-ureterogram of the left side was obtained after 30 minutes. No evidence of calculus was seen anywhere in the urinary tract. There was the shadow of a large mass in the right kidney region. Until this time abdominal examination had shown tenderness along the course of the right ureter and definite tenderness in the right flank, but there was no palpable mass.

At 3 a.m., June 15, the patient experienced excruciating pain in the right flank followed by shock, with vomiting, cold, clammy skin, and a pulse of 140. Intravenous glucose was given, and cardiac stimulation administered with marked general improvement. A mass was soon discovered in the right upper abdomen, the anterior border of which extended into the lumbar region and reached to the midclavicular line.

I saw the patient in consultation at 9:30 a.m., the same day. There was pain on the right side and examination showed a tender mass occupying the right side of the abdomen. The general condition seemed

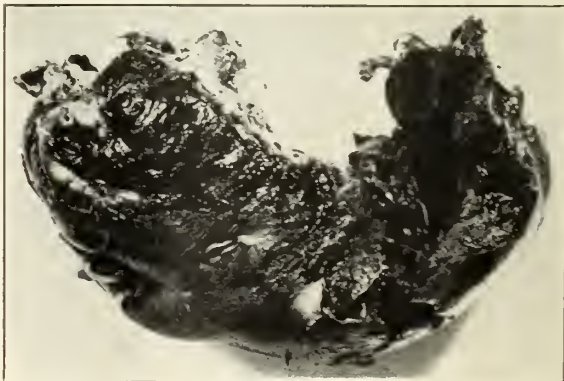


FIG. 1.

* Read before the Section on Urology of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 3, 1934.

fair although the pulse was very rapid. A cystoscopic examination was made. The urethra was not obstructed and the bladder interior was negative. The left ostium was normal in appearance and location. The ureter was not catheterized. The right ostium was an elongated slit, moderately injected, and was situated quite close to the vesical outlet. A No. 5 catheter met an impassable obstruction 15 centimeters from the bladder. A retrograde pyelogram, using 15 per cent sodium iodide, was attempted, but the solution filled the lower ureter and ran back into the bladder.

By 11 a.m. the mass had definitely increased in size and the pain in the right side was worse. The leukocyte count was 8000, and the nonprotein nitrogen was 66 mg. A diagnosis was made of complete right ureteral obstruction with a ruptured right hydronephrosis. A large aspirating needle was introduced through the right C-V angle but only a small amount of bloody serum was obtained. Although the patient was vomiting, it was not thought to be due to peritonitis as the left side of the abdomen was soft. Exploration of the right kidney was advised but the family refused to give consent. More intravenous glucose and stimulation were given without any improvement. On June 16, there was continuous vomiting, the pulse was rapid and of full volume, and there was generalized abdominal distention and rigidity, making palpation of the mass impossible. The urinary output was markedly diminished and showed 1+ albumin and a few red blood cells and leukocytes. The white blood cell count was 9000.

On June 17, the condition became progressively worse and the abdominal distention increased. The patient died early in the morning of June 18. The urine never showed more than a trace of albumin and a few red blood cells and leukocytes although the nonprotein nitrogen rose to 88 mg. at his death. Death was due to shock and hemorrhage with ileus.

A necropsy was performed shortly after death. On opening the abdomen, which was markedly distended, a large hemorrhagic mass was found in the right side, retroperitoneally. When this mass was opened, 3 pints of clotted blood and the remains of a ruptured right kidney were removed. No stones were found. The left kidney was negative. The course of the right ureter could not be traced. The liver, gallbladder, and spleen were negative. Grossly, the right kidney was merely a large shell with a greatly dilated pelvis of a smooth appearance. The pelvis was irregularly ruptured along the hilus, the line of rupture being almost as great as the maximum dimension of the kidney (Fig. 1). At one pole some recognizable kidney tissue was found which contained easily visible areas of hemorrhage.

Microscopic sections made from this region revealed some normal glomeruli and others which were partly destroyed, some of the tissue being replaced by masses of blood pigment. The tubular epithelium was swollen and cellular debris was found in many of the tubules. Many large areas of hemorrhage replaced the tubular epithelium, the condition being more marked as the kidney pelvis was approached (Fig. 2). The pathologic diagnosis was rupture of the kidney following hemorrhagic infarcts.

After death occurred, interrogation of the family obtained the following additional information: In the fall of 1930, while playing football at college, the patient had been injured in the right side and developed a hematuria which lasted 2 weeks. This was reported to his roommate but not to the school authorities for fear

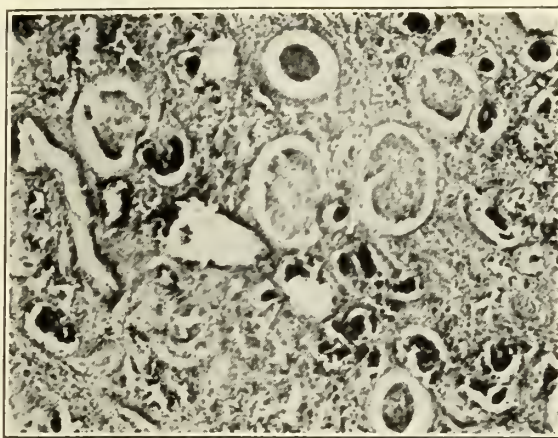


FIG. 2.

that he would be removed from the squad. This was undoubtedly the cause of the ureteral stricture and the subsequent large, silent hydronephrosis.

SUMMARY

1. A case is presented of spontaneous rupture of a hydronephrosis with complete right ureteral obstruction, the result of a football injury 3 years previously.
2. Rupture occurred while the patient was in bed in the hospital, there being no demonstrable trauma associated.
3. Diagnosis was confirmed by necropsy.
4. Life might have been saved if surgical intervention had been permitted when the diagnosis was made.

812 Fayette Title and Trust Building.

"COLLOIDS" MAY AID IN TREATING HOPELESS CANCER

The possibility that the "colloid" chemist may be able to play a significant part in the fight against cancer was demonstrated by Prof. E. F. Burton of the University of Toronto at the Colloid Symposium held by Cornell University.

Two patients suffering from cancer in a hopeless stage were apparently cured by having injections into their veins of pure metallic arsenic in colloid form, Prof. Burton reported.

The use of this form of arsenic in treating these cancer patients was suggested by a practicing physician of Toronto, Dr. A. C. Hendrick. The arsenic "colloid" was prepared by Prof. Burton by mixing arsenic with water and using some gelatin as a binder to keep the arsenic from precipitating out of the solution. The resulting mixture, in which the tiny particles of arsenic are held suspended in the liquid, even though they will not dissolve in it, is known as a colloid. —*Science News Letter*, July 6, 1935.

EDITORIALS

PHYSICIAN IN GREATER PERIL THAN HIS PATIENT

The medical literature fairly teems with warnings to members of the medical profession to slow down on worries and activities.

At the meeting of the American Psychiatric Association held in Washington, May 16, 1935, Dr. Donald Gregg, Wellesley, Mass., in a paper entitled "The Lethal Power of Emotions," declared that a general knowledge of diseases is a handicap to the physician when he becomes ill. The physician with a greater knowledge of the lethal possibilities of disease, when ill himself, carries a heavier emotional load than does the lay patient. Dr. Gregg again stresses the fact that physicians are more likely to die of coronary disease and angina pectoris, angina asthma, pneumonia, and arteriosclerosis and are more likely to commit suicide than either mental patients in state hospitals or the communities at large. These statements are borne out by statistics.

Dr. Gregg further stated that the members of the medical profession to mitigate their dilemma must of necessity lessen their emotional load by avoiding excess of emotional stimuli by slackening the pace or bearing it intermittently, by avoiding excessive specialization, and by developing a knowledge of facts and wisdom in applying the facts.

BIRTH CONTROL

Much has been said and written pro and con regarding birth control, and there is still fervid discussion anent the legal dissemination of such advice and instruction as to the technic of the use of contraceptics.

County and state medical associations, the American Medical Association, and numerous other societies and groups, lay and medical, have this economic problem confronting them to a varying extent.

The House of Delegates of the American Medical Association has had presented before it resolutions on birth control for the past 4 years, but the convention held at Atlantic City this year marks the first time the question of birth control has received official recognition by the House of Delegates. A resolution was adopted calling for the appointment of a special committee to study the entire problem and submit a

report to the 1936 House of Delegates. There also was adopted a preamble to the resolution to the effect that no stand was being taken for or against birth control.

About the same time this action was taken, the General Federation of Women's Clubs in session at Detroit requested that an amendment be made to the federal penal code permitting regulated dissemination of scientific birth control information through the mails.

With it all, the mail seems to be used almost daily by certain manufacturers to convey to the medical profession at least, the value of their individual make of diaphragm and jellies with instructions as to the adjustment and applications.

Nor does it rest here, as manifested by the numerous advertisements in the newspapers and magazines under the naïve reference "feminine hygiene."

According to the *Associated Press*, June 14, 1935, Mrs. Sherman G. Coates, field secretary of the Pennsylvania Birth Control Federation, announced that a national survey shows Pennsylvania third among the states in the number of centers giving birth control advice. Pennsylvania has 25 such centers, a number exceeded only by New York, with 36, and California, with 30. The survey showed the United States has 200 centers. They give advice to married women and are conducted under medical supervision.

SELECTION OF NURSES

In an interview with a special writer of the *Philadelphia (Pa.) Evening Public Ledger*, Miss Susan C. Francis, superintendent of the Children's Hospital of Philadelphia, considers there are too many average and below-average nurses just as there are in any profession, but there are not enough adequately prepared nurses. It is her opinion that overproduction in nursing has to be considered and suggests as a solution of this problem closing of most of the training schools, which will necessitate finding some other way of taking care of the patients without increasing the cost. This is one of the greatest problems now facing the nursing profession. There appears to be no hope of permanent improvement in nursing so long as schools in the United States continue to graduate each year 25,000 or more to compete with those already in

the field. The solution to this problem would be to raise standards for admission to schools of nursing and to select the type of entrants more carefully. The standards of the nurses' training schools should be rated somewhat on the order of the medical schools so that prospective nurses would know what school to select.

It is the opinion of Miss Francis that state taxes should go toward the cost of nurses' education, and that it is unfair to the hospital to bear the entire burden. The care of the sick is the task of the graduate nurse, for under the present system the nurses in training play the same part as normal school students would play if they did the teaching, but it is not possible to use graduate nurses exclusively in hospital care because of the expense. Hospitals do not have the funds to pay salaries to graduate nurses to do work that can be assigned to the student nurse.

The result of the present situation is a lowering of the level of nursing service, because in the eyes of the public there is no distinction between the properly prepared nurse and the below-average nurse who knew just enough to pass the State Board examinations. There is no distinction until the patient has learned for himself the inadequate service of the below-average nurse. The public should be warned when engaging the services of a graduate nurse to make sure that she is a registered nurse, as there is a percentage of graduates in the nursing field who have failed to pass the State Board examinations.

MATERNAL MORTALITY

Every citizen in the Commonwealth of Australia who is concerned in any way with the welfare of the people has noted with satisfaction that the Prime Minister, the Right Honorable J. A. Lyons, has declared his intention of facing the problem of maternal mortality in the Commonwealth. That the problem still exists is well known. According to the latest "Official Year Book of the Commonwealth of Australia," 84 women died in Australia during the year 1932 from puerperal septicemia, and 375 died from other diseases of pregnancy and labor. Puerperal deaths may be divided into 2 groups, those that are preventable and those that are not. To define preventable deaths may be difficult, for the possibility of preventing obstetric deaths depends not only on the application of the most efficient obstetric methods and on the perfection of the obstetric art, but ultimately on the care of the woman before pregnancy, on her willingness to submit to supervision, and even on the proscription of pregnancy in the presence of certain pathologic conditions. We may, however, state that not until preventable deaths are eliminated will an obstetric problem cease to exist. During recent years the subject has been discussed and interest has been awakened in several ways. In 1925 the Melbourne Permanent Committee for Post-Graduate Work offered a prize for an essay dealing with the causes and prevention of maternal morbidity and mortality. The prize was awarded to

Dr. E. Sydney Morris. His essay, published in this journal on Sept. 12, 1925, is a masterly treatise in preventive medicine and is not one whit less valuable to the medical profession now than it was 9 years ago. A few months after the publication of Dr. Morris' essay the report of the Royal Commission on Health appeared. This commission made its report after taking exhaustive evidence in all States of the Commonwealth. One of the sections of this report, published in this journal on Jan. 16, 1926, was devoted to maternal mortality. The commission, quoting figures from Dr. Morris' essay, drew attention to 691 deaths among 5839 women who died in one year between the ages of 15 and 49, in what ought to be the normal physiologic process of childbirth. The number accounted for approximately one-sixth of the total deaths among married women. The commission found that about one-third of the deaths occurred from sepsis, one-third were due to the toxemias of pregnancy, and one-third resulted from other complications of childbirth. Among the recommendations of the commission were: (1) The granting of conditional subsidies by the Commonwealth to States in order to provide facilities for attention to women before, during, and after childbirth, according to standards approved by the Commonwealth Department of Health; (2) the amendment of the Maternity Allowance Act so that (*inter alia*) the allowance should not be paid unless a medical certificate was produced to the effect that the mother had had prenatal supervision. A third effort was made to deal with this subject in 1930, when, at the invitation of the Commonwealth Government, Dame Janet M. Campbell, Senior Medical Officer for Maternity and Child Welfare, of the Ministry of Health of England, visited Australia and reported on the mortality and morbidity of Australian mothers and their infants. An extensive summary of Dame Janet Campbell's report will be found in *The Medical Journal of Australia*, Feb. 22, 1930. The chief burden of the report was that the governments of Australia must be prepared to spend more money on maternal and child welfare than they were spending, and that special departments should be created to assume proper responsibility for this branch of public health administration.

After this brief statement of some of the measures already adopted in an attempt to throw light on the problem in Australia, it will be useful to give an outline of an investigation recently completed in New York.* After several unsuccessful attempts had been made to collect data on puerperal deaths, the Committee on Public Health Relations (New York) requested Dr. R. W. Lobenstine and Dr. G. W. Kosmak to submit to them plans for the study of the public health aspects of obstetrics as they affected New York. A questionnaire was prepared and a subcommittee was appointed to investigate the cause of death in each case and to decide whether the death had been preventable or not. The study was under the direction of Dr. Ransom S. Hooker. This investigation was made possible by the coöperation of the Department of Health. The preventable deaths fell into 2 groups. In the first group either the medical attendant or the midwife was held to be responsible. In these instances an error either in judgment or in technic had been made. In the second group the patient was held responsible, and in these instances either the pa-

* "Maternal Mortality in New York City: A Study of all Puerperal Deaths, 1930-1932," by the New York Academy of Medicine Committee on Public Health Relations, directed by R. S. Hooker, M.D., F.A.C.S., 1933. New York: The Commonwealth Fund; London: Humphrey Milford (Oxford University Press).

tient had failed to obtain medical advice or had failed to cooperate with her attendant by neglecting or refusing to follow his advice. It was recognized that in many cases in the second group the patient was helpless by reason of circumstances which were not of her making or which lay beyond her control. While we are not at the moment concerned with the detailed results of the New York inquiry, it is interesting to note that of 2041 maternal deaths studied during a 3-year period, 1343 were found to have been preventable. Of these preventable deaths 65 per cent fell into the first group, that is, they were due to lack of medical skill, faulty medical judgment, poor hospital administration, or incompetent midwifery. The remaining 35 per cent fell into the second group. The recommendations of the New York committee include, as might be expected, the shouldering by the medical profession of the responsibility for the education of the public in antenatal supervision. The full extent of antenatal supervision is admirably set out in the report, but cannot be further described at present. Emphasis is laid on the need for adequate training of medical practitioners in midwifery and for the provision of postgraduate facilities. Reference is made to the staffing of obstetric hospitals and the proper training of midwives. At the same time little mention is made of what should be done to help the woman who is "the victim of poverty or ignorance," or of the "failure of society to provide proper and effective education, assistance, and care" for her. If the duty of the state in regard to the economic and obstetric needs of women of this type is excepted, all students of the subject will agree with the concluding statement of the New York committee that the responsibility for the reduction of maternal deaths rests with the medical profession.

The investigations into the obstetric problem that have been made in Australia have yielded no definite information as to the number of preventable deaths that occur. Were an investigation made on lines similar to those adopted in New York, doubtless many preventable deaths would be discovered. Such an investigation could be organized without much difficulty, and the results would show in what direction action should be taken. In some of the states at present steps are taken by the health departments to discover the reason for deaths occurring during pregnancy, labor, and the puerperium. These investigations might be extended on pre-arranged lines, and there would surely be no unwillingness to the coordination of results by a central authority. Whether this is done or not, the medical profession must recognize its responsibility. The teaching of obstetrics in the Australian medical schools is organized on sound lines, and postgraduate classes are held every year in several of the capital cities. There is therefore no reason to suppose that medical practitioners are ignorant of obstetric methods. Continual watchfulness, however, is necessary and, as we have pointed out on previous occasions, this is best maintained by the voluntary checking of results, in the way adopted by the Obstetric Committee of the Queensland Branch of the British Medical Association. Of course, the whole remedy does not lie in the perfection of obstetric methods used by medical practitioners. But in any attempts to reduce mortality medical practitioners will be vitally concerned; they must be prepared to help, not only by checking their results and trying to improve them, but by making constructive suggestions through their official organizations, should a suitable occasion arise.—*Editorial, The Medical Journal of Australia*, Dec. 1, 1934.

COMMENTS AND EXCERPTS

Acne Sufferers Should Avoid Spinach and Pork.

—Persons suffering with acne would do well to avoid spinach, pork, and potatoes, it appears from a report made by Drs. T. D. Cunningham and J. C. Mendenhall, of Denver, to the Association for the Study of Allergy.

These foods more than any others caused a reaction in acne sufferers who were tested for food sensitivity, the Denver physicians found from skin tests similar to those made on hay fever and asthma patients. The tests were made in the course of a search for the cause of acne.—*Science News Letter*, June 22, 1935.

Youngest Children Most Likely to Be Malformed.—The younger children of very large families are more likely to be born with some physical defect than are the first-born children, Dr. Douglas P. Murphy, of Philadelphia, told the meeting of the Eugenics Research Association in New York.

Death certificates of 130,132 persons dying in Philadelphia during a period of 5 years were examined by Dr. Murphy. By visiting the mothers, he obtained information about the births of 582 individuals who had been born malformed in some way. Thirty-three of the families visited were found to contain more than one malformed child.

Malformations occurred among the oldest 4 in the family less often than might be expected upon the basis of chance alone. But the seventh-born children were defective twice as often as might be expected, and the ninth-born 3 times as often.—*Science News Letter*, June 15, 1935.

New Operation for Bunion Lets Patient Wear Shoes.—A new operation for bunion in which the foot gets well quickly and the patient can wear ordinary shoes in comfort was reported by Dr. Earl D. McBride of Oklahoma City at the meeting of the American and Canadian Medical Associations.

The operation proved satisfactory in 39 consecutive cases, Dr. McBride said. He called it a conservative procedure which tends to restore the normal architecture of the toe.

The muscle that pulls the toe inwards is released by the operation. The muscle on the outside is shortened. Thickened tissues are removed and also a small amount of bone if the deformity is severe. The mechanical force causing the deformity is thus corrected. An additional advantage is having the scar underneath, where it is safe from irritation.—*Science News Letter*, June 22, 1935.

Mayo Clinic Finds Apples Disagree with Many.—An apple a day keeps the doctor in pay.

Some such paraphrase of the old saying will need to be written as a result of studies by Drs. Walter C. Alvarez and H. Corwin Hinshaw, of the Mayo Clinic. Apples are among the foods that most commonly disagree with people, these physicians have found (*Journal, American Medical Association*, June 8.)

Four persons out of 5 in a group of 500 men and women who admitted food sensitiveness complained of discomfort after eating apples, onions, cabbage, or milk. Many who cannot touch raw apples or onions can digest with comfort boiled onions or cooked apples. Others who dare not eat boiled cabbage are able to digest cole slaw or sauerkraut, the doctors found.

Other common offenders among foods are wheat, chocolate, milk, eggs, tomatoes, and oranges.

If a person has indigestion, he can select from the following list of fairly innocuous foods, these physicians find: lamb, gelatin, butter, sugar, rice, rye, barley, arrowroot, tapioca, sago, lima or soy or string beans, cooked apple, pineapple juice, beets, peas, asparagus, Irish and sweet potatoes, eggplant, turnips, parsnips, pumpkin, artichokes, cooked pears, and weak tea.—*Science News Letter*, June 15, 1935.

Lack of Publicity Blamed for Thriving of Quacks.—Lack of publicity in the medical profession was blamed for the thriving of so-called health lecturers and psychologic and medical quacks by Dr. Charles A. Rymer of Denver, Colo., speaking to the American Psychiatric Association.

The misinformation spread by these quacks, especially in the field of sex, may cause untold damage to the persons who are already unstable mentally and emotionally and to those who try to obtain free medical information in order to treat themselves.

It is the public's growing and widespread interest in science that makes possible the success of these quacks.

"People are impressed with the advances which have been gained through the scientific approach, but since they lack the proper prospective and background to determine what constitutes science, they attribute almost magical properties to anything labeled 'scientific.'"

"What substitute has the profession to offer?" he demanded of his fellow physicians.

"We criticize the quack for his methods; yet the medical profession is to blame to a certain extent for his existence. People believe the falsehoods of the quack because there are few means other than that of direct consultation with the doctor to counteract these beliefs."

Each county medical society should accept the challenge of the quack by offering correct instruction about health, he recommended. He also urged that each city establish a board of physicians to examine the credentials of any lecturer claiming the ability to heal disease irrespective of its nature.

"Government has long recognized as a necessary safeguard to the public the importance of licensing individuals in many trades and professions. We see no reason why the quack should be allowed to practice without restriction."—*Science News Letter*, June 8, 1935.

MEDICAL ECONOMICS

New Physicians Must Serve Bulgarian Rural Districts.—The government has ordered that every medical student, when qualified to practice, must serve for 2 years in the provinces at a fixed salary paid by the state before he may establish a private practice in the locality of his choice. He may accept no fees during his novitiate and his patients will receive treatment free of charge.

The authorities of the commune to which he is sent will provide him with lodgings and the state will pay his traveling expenses in addition to his salary of \$25 a month. This salary may seem incredibly low, but it corresponds with the general standard. Only 24 Bulgarian officials, including the Ministers, receive more than \$125 a month.—*New York Times*, June 2, 1935.

Advice to Members.—The following editorial comment, written by Dr. John H. Hare and published in the Vanderburgh County (Ind.) Medical Society *Bulletin*, is timely and worth while. Read it:

"In this critical day many of the old institutions receive unjust condemnation. The earliest medical society in America, so far as we know, was organized in 1784 and was designed 'to lay a foundation for that unanimity and friendship which is essential to the dignity and usefulness of the profession.' From that time until now, various medical societies have been organized for the same purpose, until nearly every county of every state has its own society. The cynical remarks that one may hear now are made without thought.

"The progress of medicine is constant. Only by continuous endeavor can the practitioner keep pace. Medical schools claim responsibility for their graduates for 10 years only, and after that the results depend entirely on the individual. None of us are so keen or so smart that we can afford to neglect the use of any facility to improve the quality of our work. In the field of post-graduate education, the county medical society, with its frequent meetings and discussions, stands supreme. It is very well known but frequently forgotten that the man who prepares a paper receives far more benefit than the ones who only listen to its reading. The leaders of the profession did not attain their position by sitting in comfortable seats listening to someone lecture or read a prepared paper.

"Doctors constantly worry about and discuss the many problems of the profession with which they are confronted to-day. The best possible agency for the solution of them is the united and democratic county medical society. Every legitimate doctor of the community is eligible for membership and most of them do belong to their local society. Paying dues annually is not enough; too many of us consider our duty done when we do that. We owe a debt to the profession which can only be paid by our active participation in the work of the group.

"Pay your dues, attend the meetings, prepare papers, and take part in the discussions. Don't fall by the wayside—let's all go on together."—*Jour. Indiana State Med. Ass'n*.

Clouds on the Horizon.—Dr. B. C. MacLean, superintendent, Touro Infirmary, New Orleans, states that during the past decade a number of storm warnings have appeared on the sea of the voluntary hospitals. The jazz age of insane speculation and spending was at its height, and little heed was paid to these warnings as long as the public was willing privately to donate huge sums for the erection of new hospitals to satisfy individual, group, or sectarian pride of control and to provide professional staff honors.

When the economic bubble burst the clouds became darker, and during the past 4 years the gathering storm has been signaled by a thunder of criticism from the public. The voluntary hospital ship has bravely attempted to keep afloat financially but is now threatened either with mutiny by some members of her medical crew or with wreckage on the rocks of bureaucracy and political itch.

The medical profession has become more and more articulate in recent years against an alleged exploitation of its services by institutions. The growth of clinics, outpatient departments, or dispensaries in hospitals has been one of the important developments of hospital service during the past 3 decades. In practically every instance such clinics were established at the request of the medical profession. Abuses have been discovered in individual instances, but in the main, with the intelligent application of methods of financial investigation and social-service appraisal, these impositions have been

infinitesimal. The same may be said of the public wards of voluntary hospitals with dispensaries.

The continued excessive output of physicians from schools of medicine, greatly in excess of the losses from the ranks of the profession, has created an economic problem which prods many a doctor to attack any system which may seem to affect his private interest. The author considers that the antagonistic attitude of the American Medical Association toward the efforts of voluntary hospitals to advance plans of group hospitalization, the claim of members of the American College of Radiology that the hospital exploits its roentgenologist by paying him a salary and appropriating excess profits, and the paternalism of the government's provisions for free hospital care are storm signals that menace the smooth sailing of the hospital ship.

Periodic payment plans for hospital care are making progress slowly, but it is here perhaps that hope lies. He ventures the prediction that the medical profession itself after observing the practicability of group hospitalization may wish to apply its principles to medical practice. A coordinated plan to provide both medical and hospital service on a periodic payment basis, controlled by the profession and the hospitals and with the proper safeguards, may avert the crippling of medical practice and the ruin of the voluntary hospital system.

The members of the profession by their contributions in the clinical care of the indigent sick in voluntary hospitals are justly entitled to some voice in the management of these hospitals, but after all the American public through philanthropy has an investment of 1½ billion dollars in nongovernmental hospitals to provide workshops for the profession and care for the public.

At the third conference of the American College of Radiology held in Chicago in February, 1934, reports of which are contained in its *Bulletin* No. 1, almost every speaker dealt with the economic relationship of the roentgenologist to the hospital. In brief, the target of their wrath is the full-time system of roentgen-ray department organization in hospitals. It is claimed that the hospital exploits its roentgenologist by paying him a salary and appropriating large excess profits. In the series of "Principles to Govern Relation of Radiologists to Hospitals," as set forth by the chairman of the commission on medical economics of the American College of Radiology, the proposal is made that the hospital should provide all apparatus and equipment, heat, and light, but that all fees should be collected by the roentgenologist and that he should pay the hospital a reasonable charge for the privileges and perquisites of the department. One speaker expressed the opinion at this meeting that the hospital should not participate in or collect the fees which the roentgenologist charges for his services any more than the hospital should do so in surgery or any other specialty of medical practice.

Let us be frank and admit that roentgen-ray examinations are expensive and also that the roentgen-ray department of a nonprofit association hospital is usually looked to by the administration to show a margin of profit over actual expenses. The reason for both these circumstances is that both the profession and the public, wittingly or unwittingly, demand a fee system in the hospital which makes it necessary to make up on the ferris wheel what is lost on the merry-go-round.

Altogether the specious claims of exploitation of professional services may with equal logic be applied to the employment of full-time pathologists, anesthetists, and staff nurses. Suffice it to say that the analogy of surgical practice is not a true one, but even in the sacrosanct realm of surgery the trend is obviously to-

wards coordination between hospital and doctor in all things that pertain to the interest and the care of the patient.

The darkest cloud that hovers over the hospital at this time is probably the political one—the much heralded New Deal. It is the political and social trends rather than the economic developments which may cause just misgiving. Irrespective of party the federal government during the past 15 years has become more paternalistic in its provisions for free hospital care and treatment.

A program of subsidization of approved existing voluntary hospitals on a per capita per diem basis—a plan similar to the one in effect in Pennsylvania—would be more sensible and more economical than the duplication of existing facilities. Furthermore, government-controlled hospital service may start out as the highest form of altruism but before long it may become politicalized hospital service. As long as the present elective party system prevails there will be the inevitable spoils and patronage.—*The Modern Hospital*, Feb., 1935.

How the Cleveland Group Plan Is Explained to Prospects.—A presentation of the plan followed by a period of questions and answers is found the most practical way of signing up applicants, according to Michael A. Kelly, representative, Cleveland Hospital Service Association, who represents 14 nonprofit hospitals in Cleveland. These hospitals have formed what is known as the Cleveland Hospital Service Association for the purpose of providing hospital care for the ill or injured.

A subscriber is one of a group of at least 10 employed people. A subscriber may receive up to 21 days of hospital care in any one year—in his own choice of any of the 14 hospitals and at the recommendation of his personal physician.

Hospital service includes the usual bed, board, and general nursing, but to this service has been added the usual extras that appear on the average hospital bill. In addition to bed, board, and general nursing, subscribers receive the following: Routine laboratory services; use of the roentgen-ray department; use of the operating room; anesthesia; administration of the anesthetic when performed by a salaried employee of the hospital; and the usual drugs and dressings.

As an additional service, subscribers are protected when they are temporarily outside Cleveland, such as when on a vacation or over a week-end. If hospital care should be needed during these times and a subscriber is unable to reach one of the participating hospitals, the association will pay to the hospital to which the subscriber is admitted \$4.50 per day up to 21 days if a ward subscriber, and \$6 per day up to 21 days if subscribing to the semiprivate accommodation. The association does not have an agreement with out-of-town hospitals and therefore does not know what their charges will be for a similar service furnished by the participating hospitals. These amounts allowed to the hospital may be enough to cover the hospital bill, but should the charge exceed this amount the subscriber would be called upon to pay the difference.

As a further protection the association has made the same provision for a subscriber when, in the case of an emergency or street accident, he is admitted to a hospital in Cleveland that is not participating in the plan. In such an instance the association would pay to the hospital only until such time as the subscriber could be safely moved into one of the participating hospitals.

By making these additional provisions subscribers are

protected 24 hours a day and every day of the year, no matter where they happen to be.

The association, being a nonprofit organization, is anxious to keep the rate down as low as possible; therefore, it is charging 60 cents per month for ward subscribers and 75 cents per month for subscribers who prefer a semiprivate room.

If there be a deficit as a result of these low charges, the participating hospitals have agreed to hospitalize all cases contracted for without charge of any kind to the subscriber.

The average cost for hospital care in Cleveland during the year 1933 was \$5.39 per day. The cost of a 21-day stay would be \$113.19. If a person were laying aside 60 cents a month against this bill, he would have to do so for almost 16 years before he had saved enough to equal this amount.

As soon as enrolled as one of the group the subscriber is immediately protected. When entering a hospital the subscriber presents his card of identification to the admitting officer who provides the type of accommodation selected. The subscriber is entered as a full-pay patient with the hospital bill paid 21 days in advance. The greatest majority of the subscribers will have nothing additional to pay except the fees for professional services.

If the subscriber should prefer a private room, he will be allowed \$5.50 per day against the cost of such. He pays the difference direct to the hospital. If he has been subscribing for ward accommodations, the allowance is \$4 per day.

A subscriber cannot subscribe for his wife also, but the first extension to this plan will be to allow subscribers to enroll their dependents. It is hoped to be able to make this extension to the plan within the next 6 months.

A physical examination is not required nor is there any age limit. All that is required is that the individual subscribe as one of a group of employed people.

The Hospital Service Plan does not cover what is termed outpatient or ambulatory treatment. The subscriber's personal physician is the judge as to whether or not hospital care is needed.

If a doctor is on the staff of one hospital he may care for the subscriber at the other hospitals on the list. If he is a reputable physician and acceptable to the hospital, he goes on what is known as the courtesy staff. The hospital service will be exactly the same as that rendered to any other full-pay patient selecting similar accommodations.

If a subscriber does not use the 21 days in a given year, he cannot have 42 days the next year; he is allowed up to 21 days in any one year.

The subscriber need not drop out if he leaves the company employing him, but may keep up his subscription individually for the balance of the contract year.

The doctor's service is not included, for a very good reason. If so, subscribers would have to go to doctors whom the association had selected instead of their own personal physician, and this would be a step in the wrong direction. The plan will never be extended to include professional services.

Any surplus must be held for the benefit of the subscribers to give them some type of added service the following year, or to reduce the subscription rate.

The following organizations have approved the plan: The Cleveland Academy of Medicine, Welfare Federation, Chamber of Commerce, several labor unions, Teachers Federation, American Hospital Association, American College of Surgeons, and many other or-

ganizations interested in the welfare of the community. —*Hospital Management*, March, 1935.

Additional Data on Medical Economics

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MEDICOLEGAL

Malpractice: Physician's Liability Not Removed by Award Under Workmen's Compensation Act.—The plaintiff was injured in the course of his employment. He himself employed and paid the defendant, a physician, to treat him. The injured workman, the insurance carrier, and the industrial commission effected a settlement of the workman's claim under the workmen's compensation act. The physician-defendant was not a party to the settlement, nor, since he had been employed and paid by the workman, was he in privity with the employer, on whose behalf the insurance carrier acted. Nevertheless, when his former patient instituted suit against him he pleaded that in the settlement the plaintiff, his patient, received compensation for all his injuries, including the injury alleged to have resulted from the defendant's treatment. In the district court, Wells County, the plaintiff's suit was dismissed, and he then appealed to the Supreme Court of Colorado.

The question is, said the Supreme Court, whether the settlement under the workmen's compensation act may be invoked by the physician-defendant in absolution of the charge of malpractice against him. The purpose of the appeal was solely to determine the law governing the case. If that should be decided in favor of the plaintiff, the physician-defendant could then be called on to answer to the charge of malpractice.

The liability of a tort-feasor—such as a physician guilty of malpractice—is predicated on fault; the liability of an employer under the workmen's compensation act is predicated on relationship. What the plaintiff received from or through his employer under the workmen's compensation act was paid because of that relationship. What he seeks to recover from the physician-defendant is based on the latter's alleged fault. To the workmen's compensation act the physician-defendant was a stranger; an outsider does not share the burdens of that act which are imposed on an employer, nor is he entitled to its benefits. The Supreme Court quoted from *Ruth v. Witherspoon-Englar Co.*, 98 Kan. 179, 157 P. 403, with approval, as follows:

Even if circumstances had been shown sufficient to charge the defendant with responsibility for the fault of the physicians, the rule would not be altered; for liability under the compensation act cannot be made to depend upon the degree of care exercised. A part of the loss occasioned by an accidental injury to a workman is cast upon the employer, not as reparation for wrongdoing, but on the theory that it should be treated as a part of the ordinary expense of operation. So much of an employee's incapacity as is the direct result of unskillful medical treatment does not arise "out of and in the course of his employment" within the meaning of that phrase as used in the statute. . . . For that part of his injury his remedy is against the persons answerable therefor under the general law of negligence, whether or not his employer be of the number.

To deny a remedy to the victim of malpractice simply because he has received compensation under the statute would be fraught with potential ill being. By the common law a physician or surgeon is beholden for injury to his patient resulting from malpractice. The court found no evidence to show that the legislature had abrogated the common law remedy and held that "to allow orthodox determination is only just to plaintiff and is not unfair to the defendant." The order of the

district court, sustaining a demurrer in favor of the defendant, was reversed [*Froid v. Knowles (Colo.)*, 36 P. (2d) 156].—*J. A. M. A.*, June 22, 1935.

Blood Grouping Tests and the Law.—At the meeting of the Session on Forensic Medicine of the Section on Miscellaneous Topics at the annual session of the American Medical Association in Cleveland, June, 1934, a motion was passed to "organize a committee for the purpose of acquainting the suitable authorities in the legal profession with the existence and reliability of the blood grouping tests, so that statutes may be enacted authorizing courts to order individuals to submit to blood grouping tests when they are required, in those jurisdictions in which blood tests are not obligatory at present." The first step toward this goal was taken recently in New York State, when blood grouping bills that had passed the legislature were signed by the governor. Only a short time previously a case of disputed paternity had come before the supreme court of that state, in which blood tests were ordered by Justice Meier Steinbrink at the request of the defendant. The plaintiff refused to submit to the tests and, on appeal to the appellate division of the supreme court, Justice Steinbrink's decision was reversed, since it was held that there was no statutory authority for such an order. However, the new legislation will give this authority to judges trying future cases in New York State. A brief summary of the major forensic applications of blood grouping may be of interest at this time. In illegitimacy proceedings, the tests can be used to exclude but not to prove paternity. Thus, if the mother belongs to group A, the child to group B and the supposed father to group A, the accused man could not be the father of the child, since the child possesses an agglutinin B which neither of the supposed parents has. On the other hand, if the accused man is found to belong to group B, this would not prove him to be the father of the group B child, since 15 per cent of all men belong to this group and there is a possibility of coincidence. With the aid of the 4 classic Landsteiner blood groups, one-sixth of all falsely accused men can be exonerated. The agglutinogens M and N, discovered by Landsteiner and Levine in 1928, have doubled the number of cases in which an exclusion can be obtained, so that now 1 out of 3 falsely accused men can be exonerated. In criminal cases, the blood grouping tests are useful for purposes of identification. They are of great value in such cases, since at the present time as many as 18 distinct types of human blood can readily be differentiated. For example, suppose that a criminal is wounded in a chase by the police but escapes. Some of his blood left at the scene of the crime is found to belong to group A, type N. All suspects except those belonging to this type can immediately be eliminated, and thus much time and expense can be saved. The value of keeping records of each criminal's blood group as well as his finger prints should therefore be evident. Incidentally, though clever surgeons with shady reputations have devised methods of altering the finger prints of criminals, it is impossible to change the blood group. The tests for M and N and the tests on old blood stains are of an exceedingly delicate nature and should be entrusted only to properly qualified individuals. This is important, since errors in diagnosis might result in grave injustice.—*J. A. M. A.*, June 1, 1935.

PHYSICAL THERAPY

The Controversy About Short Wave Therapy.

—The history of medicine is replete with evidence that

the most valuable discoveries and innovations in its diverse disciplines were at first received with satire, criticism, and negation. This more or less general attitude of the medical profession has also proved an effective check against pseudo-scientific claims. It is, therefore, not surprising that short wave therapy, which is beyond doubt a real innovation in high frequency practice, should have not only enthusiastic sponsors but also earnest critics. In the light of past experience there is justification for a healthy skepticism, and recent contributions to the problems, which appear to deny to short and ultrashort wave therapy the effectiveness claimed for it by a group of workers independent of each other and separated by different lands, merit tolerant and critical consideration.

Science does not err, but scientists do. Apart from the human equation it must not be overlooked that apparently contradictory findings may be ascribable to variations in technic or perchance to improper selection of wave length or to differences in the energy output of the experimental apparatus. Under the varying factors in relation to certain reported experiments the present controversy is largely the result of lack of uniformity both with regard to apparatus and methods of research.

When investigators endeavor to verify the findings of an authoritative worker or groups of workers, one of their first considerations should be concerned with the exact duplication of the laboratory set-up of the latter. In this connection it is particularly convincing that when identical technic of experimentation was carried out identical results were obtained. Thus Carol B. Pratt and Charles Sheard, of the Mayo Foundation, were able to confirm the deep thermo-penetrative powers of short and ultrashort radiation claimed by Erwin Schliephake, Paul Liebesny, W. Holzer and E. Weissenberg, and others. Study of this work discloses the fact that confirmation was attained when air-space electrodes were used instead of the commonly employed rubber condenser pads. As pointed out by the authors of the article,

... "the relationship of the heat produced in deep-lying tissues to the heat produced in superficial tissues is dependent on the distance at which the condenser plates are placed with respect to the locations of the tissues. This fact is of importance in the therapeutic uses of high frequency fields. When a considerable air space separates these plates from the surface of the tissue, the change in temperature produced in the deep-lying intra-articular tissue is greater than that produced in the subcutaneous tissue. The converse relationship maintains when the plates are placed close to the surface of the tissue. This dielectric layer effect is superimposed on any specific heating due to difference in constitution of tissue and variation in wave length of radiation which may be present."

It is evident that the above confirmation of the claims of Schliephake and other workers in this field was possible only by duplication of methods. It is therefore not surprising that Pratt and Sheard are also in accord with those who have demonstrated this type of depth effects of short wave fields, as contrasted with studies which utilized plate contact, which can at best produce a heating effect predominantly superficial in character, similar or even less than that obtainable with diathermy.

Under proper conditions and with sufficient intensities temperature may be greatly raised in deep structures without at the same time materially raising the temperature in the superficial parts. Phantom experiments by Conrad K. Gale, while not directly related to corresponding experiments on living material, are, nevertheless, significant as support of the widely published reports of a similar character. His findings based on experiments with electrolytes and with unicellular or-

ganisms show that short and ultrashort waves have selective thermic penetration.

The average physician is especially interested in the practical utility of any remedial agent. Clinically, too, on account of lack of familiarity with the underlying principles and the correct methods of application, there was to be anticipated a diversity of results. Thus we have the spectacle of almost dramatic effects observed by some and the very opposite by others. Even accidental mishaps have not been wanting. In this respect the profession has been materially benefited by the rather conservative statements of Frank Hammond Krusen and Walter J. Turrell, both of whom have pointed out possible danger of burns. These can be avoided if certain precautions, such as were enumerated in detail by Disraeli Kobak, are carefully observed. Kobak stressed the importance of avoiding intensive heating, the removal of metallic objects from proximity to the patient, maintenance of adequate air space between the electrodes and the skin, and, when indicated, resort to glass electrodes for superior depth effects, with interposition of absorbent materials to reduce the possibility of sweat formation and to enhance insurance against sparking, overheating, and resulting burns.

J. Wilson, who has studied Schliephake's precision of technic in his clinic in Giessen, stresses the fact that certain wave lengths are apparently more useful for certain conditions, so that one and the same wave length cannot be utilized for all types of diseases at all suitable for this therapy. From this author's observations it becomes clear that our difficulties are principally due to the employment of short waves where ultrashort waves are indicated and vice versa. With proper selection of wave lengths and intensities this author reports excellent clinical results, unattainable by other methods of therapy. Similar reports from creditable sources are not wanting in the contemporary literature.

Short and ultrashort wave therapy offers possibilities which cannot be ignored. The present controversial points will in due time bear natural fruits when cultivated by exact and uniform laboratory and clinical studies.—*Archives of Physical Therapy, X-ray, Radium*, May, 1935.

INDUSTRIAL MEDICINE

Death from Electric Shock.—The risk of dying from passage of electric current through the body is numerically small; the Registrar General during the last few years records only 50 to 60 violent deaths a year from electricity (lightning excepted). It is a curious thing that in spite of the widespread use of electric current for lighting in the home and as a source of power outside, the number of fatal accidents from its use is not on the increase, a tribute no doubt chiefly to the efficacy of means taken to safeguard the current, but partly, one may hope, to increasing efficiency in dealing with accidents when they occur. One result of the fewness of such injuries and their wide distribution is that only rarely does the practitioner meet with a case of unconsciousness from electric shock. But although their number may be no more than one a week, each death is a tragedy, for the victims are mostly young men in the prime of life, and it is a fact on which too much emphasis cannot be laid that in these cases more than in any other kind of accident survival depends upon prompt aid.

More than 20 years ago Dr. Reginald Morton, then president of the electrotherapeutic section of the Royal

Society of Medicine, wrote a letter to our columns, in which he stated that with the prompt application of first aid practically every victim can be revived, and of these nearly all will make a complete and permanent recovery, provided they were previously in a normal state of health. A current of 1500 volts is not necessarily fatal; Dr. Macdonald Critchley tells the story of a boy who climbed a pylon and touched a wire carrying 11,000 volts with no untoward result other than some superficial burns and transient loss of memory. More recently Dr. Blake Pritchard, who enunciated a new theory of lightning stroke, confirmed the observation that the survivors of electrocution rarely have any permanent damage of the nervous system. Dr. Morton affirmed 2 fundamental facts—the first, that death from electric shock is at first only an apparent death; the second, that whatever the conditions or severity of the accident there is a period varying from a few minutes upwards during which artificial respiration will resuscitate the victim. So important is it, he remarked, to commence artificial respiration quickly that it is the bystander's first duty to see to this before doing anything else; he must not even leave the victim to summon medical aid, for it might be too late to render effective help by the time the doctor arrives. Of course he should send for medical assistance if there is anyone to send. Artificial respiration may revive the victim of electric shock within a minute or two; on the other hand, it may not, and there may be a long period during which artificial respiration is continued without any apparent sign of life.

A recent circular (Form 1705, November, 1933) from the Factory Department, Home Office, tells what was actually done in 50 fatal accidents reported to the department. In 15 of these artificial respiration was carried on for an hour or longer, in some instances under medical supervision; in 10 cases for half an hour, in 8 for 15 minutes, in 2 for 10 minutes, and in 1 for 5 minutes. In 6 of the 15-minute cases it seems that the doctor who was called in pronounced life extinct at the end of that time. In 4 cases it is definitely recorded that no artificial respiration was tried. In 11 of the cases, indeed where a doctor was on the scene within a few minutes of the accident, practically no attempt was made to revive the patient. The circular is quite definite in asserting that if a doctor on his arrival finds artificial respiration being practiced he should not, because the heart beat cannot be detected, presume life to be extinct but should advocate perseverance in artificial respiration. Evidence in the hands of the department makes it all too clear that the importance of immediate application of artificial respiration in cases of apparent death from electric shock, and of persistence in applying it, although generally appreciated now by electrical engineers, is not adequately realized by factory occupiers or, the circular adds, by members of the medical profession. Both the Silvester and the Schafer methods of resuscitation are applicable, the important thing being to apply one or the other of them without a moment's delay. Artificial respiration should be combined with the inhalation of oxygen carbon-dioxide mixture as in the first-aid treatment of persons overcome by gas.—(*The Lancet*) *Medical Times*, April, 1935.

HOSPITAL ACTIVITIES

Hospitals and Doctors.—Dr. Richard J. Behan, president of the Allegheny County Medical Society,

contributes the following to the *Pittsburgh Medical Bulletin*, June 8, 1935:

The Federation of Social Agencies, at its annual meeting in the William Penn Hotel on May 22, 1935, promulgated some important data in regard to the hospitals of the metropolitan area of Pittsburgh. Abstracts of these data were published in the daily papers and it is unnecessary to repeat them at the present time. However, it was claimed that at present there is too great a difference between the bed capacity and the average bed occupancy in the hospitals of the Pittsburgh area. This amounted to approximately 50 per cent. In considering this fact it must not be forgotten that hospitals, which are not exactly in the same class as hotels, must be prepared for a rapid increase in bed occupancy during epidemics or at periods of the year when surgery and sickness claim many patients. At such times bed occupancy may advance to 80 per cent or more of bed capacity. We might meet this problem through special institutions reserved for epidemic or seasonal increase, manned by a skeleton personnel which could be rapidly expanded. Admission to such hospitals could be arranged through a central admitting bureau, and physicians seeking reservations could refer their patients to such a bureau. Under the plan hospitals must be paid a per diem rate for all indigent patients.

The average per diem rate calculated should not include the average daily cost of (a) caring for all patients in the hospital, including highly expensive private room patients; (b) the cost of scientific research work (nonclinical); (c) the cost of investigating the prehistoric existence and activities of the patient, including environmental disturbances or insufficiencies; nor should it include (d) the cost of post-hospital follow-up care, nor any of the elaborate personal contact between patient and social worker at present in vogue in so many institutions.

All these pertain to governmental health, welfare, and preventive medicine and are properly the responsibility of state, county, city, borough, or township, as the case may be, as exemplified in all programs of modern health legislation.

Furthermore, the per diem cost of taking care of the indigent patient should not include the cost which is associated with charges peculiar to the upkeep of imposing buildings, magnificent surroundings, plus the interest charges on the borrowed money essential to such pretentious magnificence. Should these various charges be deducted from the costs of hospital care, it would be found that the ward patient could, even at the present time, be hospitalized for an average cost of not more than \$2.50 to \$3.00 per day, and for this he could be treated well, being given all the advantages of modern science.

Anything above the basic cost of \$2.50 to \$3.00 per day should be charged to public health maintenance, to the account of cultural advancement, and esthetic satisfaction received.

The essentials are a place for the patient to rest, receive proper nursing, and the directions of a good physician; otherwise the hospital can offer little of advantage to doctor or to patient.

There may in some cases be a disadvantage in giving a ward patient surroundings and care which are far beyond attainment in his home, which when he becomes accustomed to them make him dissatisfied with his home surroundings and usual environments. Such a patient becomes a fit candidate for all the social propaganda which has as its basis dissatisfaction with present social conditions. Is this fair?

PUBLIC HEALTH

Trains Safer Than Home.—Accidents caused approximately 99,000 deaths in the United States during 1934, yet according to the chairman of the Western Association of Railway Executives only 4 of these deaths were among passengers aboard western trains.

A western railroad has been the winner for class-A railroads every year for the past 6 years. One major western line heads the all-time safety record.

Many safety measures are used by the railroad companies that do not come to the attention of the public.

Probably the greatest single contribution to travel safety in recent years is the "electric eye" of the Sperry Rail Detector. Since its introduction in 1928, it has been improved constantly until to-day it is capable of checking accurately any flaw in the rails.

"Certified" Milk Now May Be Pasteurized.—The American Association of Medical Milk Commissions, meeting at Atlantic City, N. J., in conjunction with the American Association of Certified Milk Producers, on June 11 voted unanimously to amend its "Methods and Standards" to permit pasteurization of "Certified" milk. This action, which had the approval of the producers' organization, was the culmination of discussion extending over several years, during which pasteurized "Certified" has been sold in several large American cities in technical violation of the "Methods and Standards."

The opposition to such a move, in the past, has stood chiefly on the grounds that pasteurization might lessen the nutritive value of the product and lead to a lowering of sanitary standards. However, several prominent speakers who participated in the discussion agreed that there was no evidence that pasteurization materially affected the food value of milk. The bacterial limit, after pasteurization, was set at 500.—*Health News*, June 24, 1935.

Widespread Scarlet Fever Increase Reported.—A new high figure for scarlet fever cases has been reached in the present widespread outbreak. A total of almost 8000 new cases were reported by state health officers to the U. S. Public Health Service at Washington, D. C., during the week of March 2.

More new cases are being reported than at any time in the past 7 years, the federal health authorities state. The present increase throughout the nation coincides with the usual seasonal rise and will therefore probably continue to the end of the month, as the peak of the seasonal rise in scarlet fever cases usually is reached by the end of March or the first week in April.—*Science News Letter*, Mar. 16, 1935.

White Plague Still Leads as Killer of Young Adults.—Tuberculosis is still the leading cause of death in the population between ages 20 and 40, Dr. Kendall Emerson, managing director of the National Tuberculosis Association, told medical educators at the annual congress on medical education held under the auspices of the American Medical Association.

Dr. Emerson pointed out 8 lines of attack against the white plague. He urged that the importance of this subject be given more emphasis in medical schools so that the young physicians graduating each year are ready to do their part in stamping out tuberculosis.

The 8 procedures which Dr. Emerson described for an antituberculosis program, in which the coöperation of physicians is needed, are as follows: Protection of

the milk supply; early discovery and segregation of infectious cases; protection of the child against first infection or, if already sensitized, against reinfection; elimination of proved industrial hazards; more attention to age and racial groups which show the highest proportion of infection; promotion of acceptable standards of housing and nutrition; intensive research; and eternally hammering away at the task of teaching a none-too-receptive public how to take care of itself through health education.—*Science News Letter*, Feb. 23, 1935.

Morbidity in Pennsylvania in April, 1935

Locality	Disease				
	Diphtheria	Measles	Scarlet Fever	Typhoid Fever	Whooping Cough
Aliquippa	0	45	2	0	0
Allentown	0	6	1	1	3
Altoona	2	111	13	0	2
Ambridge	0	0	0	0	0
Arnold	0	1	0	0	0
Beaver Falls	0	0	0	0	0
Bellevue	0	9	1	0	0
Berwick	0	144	42	0	0
Bethlehem	0	71	4	0	0
Braddock	0	17	0	0	0
Bradford	2	244	1	0	0
Bristol	0	0	0	0	0
Butler	0	4	1	0	0
Canonsburg	0	4	1	0	0
Carbondale	0	0	0	0	0
Carlisle	0	0	0	0	0
Carnegie	0	6	1	0	5
Chambersburg	0	3	1	0	0
Charleroi	0	0	1	0	0
Chester	2	3	5	0	0
Clairston	0	94	7	0	3
Coatesville	0	0	0	0	0
Columbia	0	1	0	0	0
Connellsville	0	1	0	0	0
Conshohocken	0	0	0	0	0
Coraopolis	0	23	6	0	0
Dickson City	1	0	0	0	0
Donora	0	3	1	0	0
Dormont	0	7	0	0	0
Du Bois	0	0	1	0	0
Dunmore	0	0	0	0	0
Duquesne	0	22	1	0	0
Easton	0	24	1	0	16
Ellwood City	0	191	0	0	0
Erie	0	14	4	0	1
Farrell	0	18	1	0	0
Franklin	0	44	1	0	2
Greensburg	0	0	0	0	0
Hanover	0	0	4	0	1
Harrisburg	0	2	15	0	5
Hazleton	1	30	2	0	4
Homestead	0	17	0	0	2
Jeannette	0	4	1	0	0
Johnstown	0	136	1	0	8
Kingston	2	153	3	0	4
Lancaster	0	10	29	0	0
Latrobe	0	55	0	0	0
Lebanon	0	60	0	0	4
Lewistown	0	76	2	0	2
McKees Rocks	2	11	2	0	0
McKeesport	0	0	0	0	0
Mahanoy City	0	0	2	0	0
Meadville	0	41	1	0	7
Monessen	0	38	4	0	5
Mount Carmel	1	0	0	0	0
Munhall	0	9	13	0	0
Nanticoke	2	1	4	0	0
New Castle	0	50	6	0	0
New Kensington	1	3	2	0	0
Norristown	0	1	6	0	9
North Braddock	0	10	0	0	0
Oil City	1	128	1	0	2
Old Forge	0	0	0	0	0
Olyphant	0	2	0	0	0
Philadelphia	9	150	344	0	124
Phoenixville	0	0	2	0	0
Pittsburgh	8	2,084	161	0	39
Pittston	0	6	0	0	0
Plymouth	1	34	0	0	0
Pottstown	1	1	1	0	0
Pottsville	0	0	1	0	2
Reading	3	129	10	0	0
Seranton	0	64	1	0	1
Shamokin	0	5	0	0	0
Sharon	0	143	5	0	1
Shenandoah	0	1	0	0	0
Steelton	0	5	0	0	3
Sunbury	0	20	6	0	2
Swissvale	0	113	12	0	0
Tamaqua	0	0	14	0	1
Taylor	0	1	0	0	0
Turtle Creek	0	8	6	0	0
Uniontown	1	0	1	0	0
Vandergrift	0	8	1	0	0
Warren	1	5	1	0	0
Washington	0	23	2	0	0
Waynesboro	0	0	0	0	0
West Chester	0	1	1	0	0
Wilkes-Barre	8	640	7	0	3
Wilksburg	0	28	16	0	0
Williamsport	0	121	0	0	1
York	1	1	0	0	1
Townships					
Allegheny County:					
Harrison	0	7	0	0	0
Mt. Lebanon	0	0	0	0	0
Stowe	0	3	3	0	0
Delaware County:					
Haverford	1	1	5	0	5
Upper Darby	0	3	2	0	5
Luzerne County:					
Hanover	1	29	0	0	1
Plains	0	16	1	0	0
Montgomery County:					
Abington	0	0	2	0	0
Cheltenham	0	2	0	0	3
Lower Merion	0	2	9	0	5
Total Urban ..	52	5,601	809	1	282
Total Rural ..	76	5,880	1,050	14	307
Total State ..	128	11,481	1,859	15	589

TUBERCULOSIS ABSTRACTS

A Review for Physicians

PREPARED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Published through the coöperation of the Pennsylvania Tuberculosis Society and The Medical Society of the State of Pennsylvania

CLIMATE as a factor in the treatment of tuberculosis furnishes a subject for perennial discussion. A skilled statistician with medical consultation has devised a new approach to the question. He has made a nation-wide application of certain well-recognized standards of measurement with interesting results. His paper was presented before the annual meeting of the American Association for the Advancement of Science held in Pittsburgh, on Dec. 28, 1934.

CLIMATE IN RELATION TO PULMONARY TUBERCULOSIS

The need for more exact knowledge of the influence of climate in the treatment of tuberculosis prompted this study of more than 150,000 deaths from pulmonary tuberculosis among the white population in 42 states in the United States Registration Area. A large body of opinion at the present time tends to minimize the importance with which climate has been credited for a number of years. While many of the reports that have been published indicate that altitude is beneficial in the treatment of tuberculosis, the majority of them evidence disagreement and are not highly conclusive because of the inadequate number of variables taken into consideration.

This statistical analysis covered 19 elements which, on the basis of a priori reasoning might be expected to influence the tuberculosis death rate. The 19 elements were classified into 2 main groups: *Climatic* including latitude, altitude, average annual temperature, annual temperature range, daily temperature range, annual precipitation, relative humidity, sunshine, and wind velocity; *nonclimatic* including per capita personal income, occupational index, population density, percentage of the white population ur-

ban, percentage of the white population (age 10 and over) illiterate, percentage of the white population foreign born, percentage of the population colored excluding Mexicans, expenditures for public elementary and secondary schools per capita of the population, age 5 to 17, and expenditures by universities, colleges, and professional schools per capita of the population, age 18 to 23. The nineteenth element, the average death rate for the years 1928, 1929, and 1930 from all causes other than pulmonary tuberculosis, violence, and accidents per 100,000 of the white population adjusted for age might presumably reflect both climatic and nonclimatic influences.

South Dakota and Texas were not included in the investigation because they were not a part of the Registration Area during the period for which the data were collected. Arizona, California, Nevada, and New Mexico were also eliminated because the great number of health seekers within their borders made their rates incomparable with those of other states and the information necessary to adjust for nonresident tuberculosis mortality was not available.

A study of the relation of each of the 19 elements to each other and to the average pulmonary tuberculosis death rate from 1928 to 1930 for the white population, adjusted for age differences, resulted in the elimination of 12 of the elements as showing no connection with the variations in the pulmonary tuberculosis death rates in the 42 states. The remaining elements were altitude, daily temperature range, precipitation, sunshine, occupational index, illiteracy, and school expense. These 7 elements combined were found to be conclusively significant and might be expected to account for the major part of the variations in the tuberculosis death rates between the different states. The 4 climatic factors were about equal in importance to the 3 nonclimatic elements, the degree of dependence of the death rate upon them being distributed as follows: illiteracy, 40 per cent; sunshine, 30 per cent; altitude, 13 per cent; expenditures of public and elementary schools, 11 per cent; annual precipitation, 4 per cent; daily temperature range, 1 per cent; occupational index, 1 per cent. It is interesting to note that the nonclimatic factors found to influence the pulmonary tuberculosis death rate were, in general, indicators of standards of education rather than measures of economic condition or population density. The analysis indicated that negligible significance was attached to economic condition as measured by per capita income or to exposure to infection as represented by population density, percentage of the white population urban, and variation in occupation.

Tuberculosis mortality rates which might be expected on the basis of the foregoing findings were computed for each state and found to correspond closely with the observed death rates. The slight differences between the actual and the expected rates were thought to be due to random elements in the data, errors of observation, and, also, to the extent to which the present study had failed to account for all factors determining the variation in the death rates among the different states.

The states were combined into 5 geographic divisions, each of which represented fairly uniform conditions. A comparison of the pulmonary tuberculosis death rate in each division with

the rate to be expected on the basis of the climatic factors and the rate to be expected on the basis of the nonclimatic factors showed that as the death rate declined, the expected rate also declined in approximately the same proportion. The South, which experienced the highest death rate, also had the highest expected rate. The North had almost exactly the expected death rate. The particularly favorable nonclimatic factors in the Pacific Northwest served to lower the death rate below that which might be expected from the not especially favorable climatic conditions. The relatively low death rate in the West Central division might be accounted for by relatively favorable conditions, both climatic and nonclimatic. Since the nonclimatic factors in the Rocky Mountain states were not appreciably more favorable than in the West Central and Pacific states, the remarkably low death rate for the semi-arid high altitude mountain states seemed to be explained satisfactorily only on the basis of uniquely favorable climatic conditions.

The 5 states with the lowest tuberculosis death rates for the white population had an average of 21.4 deaths per 100,000 of the population, and the 5 states with the highest rates averaged 73.8 deaths per 100,000 of the population. It may be of interest to note that the low death rate group averaged 4090 feet in altitude and the high death rate group 482 feet. The annual precipitation average of the first group was 17.7 inches while that of the 5 states with the highest tuberculosis death rates was 43.5 inches. The low death rate group also had substantially lower relative humidity, greater daily temperature range, and more hours of sunshine. It would seem, therefore, from the analysis of this comprehensive investigation, that, in so far as the United States is concerned, high standards of education combined with life in a dry, sunny climate of high altitude are far more important than large per capita income and low population density in reducing to a minimum the death rate from pulmonary tuberculosis.

A Statistical Study of Climate in Relation to Pulmonary Tuberculosis, Alfred Cowles, 3d, and Edward N. Chapman, M.D. Presented before the American Association for the Advancement of Science at Pittsburgh, Pa., Dec. 28, 1934.



THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA

OFFICERS' DEPARTMENT

WALTER F. DONALDSON, M.D., *Secretary*, 8104 Jenkins Arcade, Pittsburgh, Pa.

CALL TO THE 1935 MEETING

The first meeting of the House of Delegates of The Medical Society of the State of Pennsylvania will be called to order in the Farm Show Building, Harrisburg, on Monday, Sept. 30, 1935, at 3 p. m.

A notice regarding parliamentary requirements for consideration of amendments was published in this department in the May JOURNAL.

Proposed amendments to the By-laws, which were published in the June JOURNAL, will be published again in the September JOURNAL as well as in the official handbook for the 1935 session.

In addition to these proposed amendments to Chapter III, Section 1, the following is offered by the Board of Trustees:

Amend Chapter VIII, Section 6, to read as follows (proposed amendment in italics): Any physician living near a county line may hold his membership in the county most convenient for him to attend, on permission of the councilor of his district *and the component society of the county in which he lives*, but no physician shall at the same time hold membership in more than one component county medical society.

HOUSE BILL 494

(A Continued Story)

In the Officers' Department of the April and June issues of the JOURNAL we discussed at considerable length the "nuisance" activities of the supporters of the 1935 Chiropractic Bill, known in the Pennsylvania Legislature as House Bill No. 494.

The next activity developing after the preparation of our installment for the June issue of

the JOURNAL is referred to in the following communication concerning a letter sent to our entire membership which appears on page 842 of the June issue of the JOURNAL.

June 7, 1935.

Officers and Legislation Committee Members
of State and Component Societies

Gentlemen:

On Monday, June 3, each member of the House of Representatives found on his desk in the Capitol Building at Harrisburg a communication from the Pennsylvania Chiropractors Protective Association, which alleged among other things that our Public Health Legislation Committee in its communication of May 16 to each member of our State Medical Society had *used a lie as a weapon*.

Your Committee on Public Health Legislation is desirous of retaining your respect and your confidence. We therefore are sending you, with the attached copies, a copy of a letter from Director Wm. C. Woodward, of the Bureau of Legal Medicine and Legislation of the American Medical Association.

The words in quotation marks in our committee's letter to all State Society members on May 16 are taken directly from House Bill No. 494 as it stands. The interpretation of these words which enrages the chiropractors (see Lie No. 5) is the expert opinion of Director Woodward.

Sincerely yours,

C. L. Palmer, *Chairman*,

COMMITTEE ON PUBLIC HEALTH LEGISLATION.

Walter F. Donaldson, *Secretary*,

MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

Strange to relate, the supporters of House Bill No. 494, shortly after notifying each legislator that our statement that the enactment of the bill would limit physical examination or treatment of the spine to the practice of chiropractors "was a lie," very quietly offered an amendment "exempting" physicians and osteopaths from its provisions. This tacit admission that a wriggling provision of their bill had been detected, having failed to dislodge House Bill No. 494 from the House Committee in which it

was being held by instruction of the House with a vote of 113 to 44, the bill's supporters promptly introduced in both the House and the Senate resolutions which in effect instructed the Governor to appoint a temporary commission to license chiropractors now in practice in Pennsylvania and to recommend to the 1937 Legislature a bill for the permanency of a Chiropractic Licensing Board.

Such resolutions, introduced during the last few confused days of a tired and distracted Legislature, not infrequently slip through, but members of the Legislature apparently in favor of the retention of Pennsylvania's tried and proven act for the licensing of practitioners of all forms of the healing art evidently prevailed on the committees to which the resolutions were referred since the Legislature adjourned on June 22 without giving comfort to chiropractors unwilling to meet existing requirements for a license.

We now have brief surcease from these nuisance activities, but our successors will meet them in 1937. We trust that our published record, especially that in the April, 1935, issue of the JOURNAL, will prove helpful in preventing later the legalization of the practice of hordes of those who have deliberately engaged, without adequate preparation or any legal authorization, in the practice of the healing art in Pennsylvania.

THE END.

EMERGENCY MEDICAL RELIEF SERVICE CONFERENCE

The conference to which the subjoined letter and questionnaire refer was attended by all members of the State Society Medical Advisory Committee to the State Emergency Relief Board; representatives of 19 similar county society committees to the County Emergency Relief Boards; and 20 other interested members of our society.

To the President, the Secretary, and the Chairman of the Medical Advisory Committee of each Component County Medical Society.

Next Thursday, June 27, there will be held in Harrisburg an all-day meeting, planned by the Governor of the Commonwealth and the director of the State Emergency Relief Service, for the discussion of all phases of relief service.

The opening meeting will be held at 10 a. m., E. S. T., in the Forum of the Educational Building. Governor George H. Earle and Director Robert L. Johnson will make the opening addresses.

Of course, one of the chief and most important topics for discussion will be that of Emergency Medical Service to the unemployed on relief.

This implies representation of not only the public, but participating social workers, nurses, pharmacists, dentists, and physicians. Your State Medical Society

will of course be represented by its Medical Advisory Committee to the State Emergency Relief Board, but it is highly desirable that as many as possible of our county medical societies be represented by the chairman and, if possible, other members of the county medical society Advisory Committee to the County Emergency Relief Board.

It is therefore essential and earnestly to be hoped that many of the component county societies will make provision for such representation.

In the meantime your State Medical Society Advisory Committee will appreciate receiving next Monday, Tuesday, or Wednesday from the chairman of each County Medical Advisory Committee a prompt response to the attached questionnaire.

This request for responses, based on local experience, to specific questions does not preclude but on the other hand is intended to stimulate additional comments and constructive suggestions which reflect local experiences in the administration of all phases of the Emergency Medical Relief Service and which by their future adoption might tend to improve the quality of the medical service to be distributed if possible more equitably to the relief patient, the participating physician, and the taxpayer alike.

A prompt and complete response to both requests implied in the above will be tremendously appreciated and will no doubt be not only helpful in extending and consolidating our influence with the public, but in improving the character of the Emergency Medical Relief Service at present being given under county medical society sponsorship.

Very truly yours,

George L. Laverty, *Chairman,*

MEDICAL ADVISORY COMMITTEE TO SERB.

Walter F. Donaldson, *Secretary,*

MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

(Copy of Accompanying Questionnaire)

Based on 18 months' experience in connection with the administration of Emergency Medical Relief service in County, we submit the following replies, criticisms, recommendations, and opinions, which we believe will be helpful in properly limiting the social and economic scope and at the same time improving the quality of the medical service to those on Emergency Relief.

1. In what proportion of relief case reports submitted by participating physicians and reviewed by your Advisory Committee has there been presumptive evidence or suggestion that the accuracy of the diagnosis or the quality of the medical service rendered was inadequate by reason of a lack of diagnostic or therapeutic aids, such as

- (a) routine microscopic urinalysis
- (b) routine blood counts
- (c) routine serologic tests
- (d) roentgen-ray examination and interpretation
- (e) the application of physiotherapy
- (f) prescription of recognized but expensive
 - (1) medicaments
 - (2) apparatus

2. Has your Advisory Committee periodically

- (a) reminded participating physicians of the underlying social philosophy of the Emergency Medical Relief Service?
- (b) notified them of governmental modifications of the Service Rules originally promulgated?

3. How reconcile the average physician's desire to follow his own professional judgment with the economic necessity for limiting payment for his service to a given relief case

- (a) acute
- (b) chronic

4. How minimize reckless granting of requests for relief medical orders?

5. Have you noted evidences of public appreciation of the value of the free choice of physician and payment on a fee basis agreement now considered fundamental in relief plan?

6. Are participating physicians helpful in recognizing "unemployables" and the philosophy that all who are unemployable and indigent because of chronic impairments should soon be returned to county poor authorities as the responsibility of the "taxables" in each county for needed sustenance and for needed noninstitutional medical service on a "free choice-fee basis?"

7. What further can representatives of your State Medical Society do, through the columns of the monthly JOURNAL, or by other means of communication, or by visitation, to improve from any and every angle the Emergency Medical Relief Service throughout the counties?

REMARKS:

Name

County

Date

The morning program was completed, as arranged by the SERB except for the absence of Governor George H. Earle.

In the afternoon, rooms were provided for group discussion. The physicians' group, 45 in number, was assigned to the Senate Caucus Chamber, and they discussed, section by section, proposed changes in the rules governing Emergency Medical Relief as compiled by representatives of the Philadelphia County Emergency Relief Board and the Philadelphia County Medical Advisory Committee. These proposals as finally approved by the medical group were then entrusted to the following committee for consideration the next day with similar committees from the other healing arts groups and the SERB: Drs. C. D. Ambrose, Myer Solis-Cohen, and William W. Lazarus.

It is believed that the discussions brought forth during the afternoon will eventually help to clarify misunderstandings regarding the possibilities of the emergency medical relief service program, and the limitations to the determining powers of those who render either administrative, investigative, or healing arts services.

Further, just as our conference held in Harrisburg early in September, 1934, helped to bring about understanding of the essential state-wide phases of our public relations and medical economics program better than it could have been considered and decided upon in the 1934 House

of Delegates, so last week's conference will be of similar effect in regard to the state-wide emergency medical relief program and the deliberations of our 1935 House of Delegates.

At the afternoon meeting the following resolutions were adopted and later approved by other healing arts groups also in session:

RESOLUTION

Introduced by the Medical Advisory Committee to the SERB

WHEREAS, In 1931 the Governor of the Commonwealth of Pennsylvania, through his Secretary of Health, appealed to the officers of The Medical Society of the State of Pennsylvania (8250 members) to meet the then rapidly growing demand for medical service in the families of citizens believed to be temporarily unemployed, and

WHEREAS, The Medical Society of the State of Pennsylvania, through its 61 component county medical societies, had, within 60 days, effected coordinating relations with existing governmental health, welfare, and civic organizations throughout the state whereby physicians in private practice agreed to give their services to the needy sick through such channels, as well as to continue to care for their own former patients now in economic distress, and

WHEREAS, Two years later federal, state, and county governmental units were so organized as to pay from tax or other governmental funds for all other forms of sustenance, The Medical Society of the State of Pennsylvania sought some form of remuneration for private physicians serving those on emergency relief, and

WHEREAS, Eighteen months of Emergency Medical Relief Service has now been completed, as sponsored in each county in the state by an Advisory Committee from each county medical society to each County Emergency Relief Board, and this medical service, maintained locally on a basis of private relationship between patient and physician and absolutely free from partisan political influence, has resulted in the delivery of sickness service of reasonably high quality, fair to patient, physician, and taxpayer alike, and

WHEREAS, The equitable continuation of this well-coördinated medical service may be threatened by proposals to remove from direct Emergency Relief to some form of Works Relief a majority of the families at present on unemployment relief, without provision for such phase of a deficiency budget as will prevent a relapse into the uncoördinated service prevalent in Pennsylvania before December 1, 1933; therefore, be it

Resolved, That this conference of representatives of the organized medical profession throughout Pennsylvania protest to the Honorable Harry L. Hopkins, Federal Administrator of the FERA, against the promulgation of such federal relief requirements as will obviously withdraw direct Emergency Medical Relief service without provision of adequate remuneration to those transferred to Work Relief projects to finance their medical care in addition to paying for food, clothing, and shelter.

RESOLUTION

Introduced by Dr. Francis F. Borzell

WHEREAS, It is the belief of the medical profession and the allied groups involved in rendering health services that the highest type of medical service is best rendered when the free choice of physician is available

to the recipient of these services, and when the traditional patient-physician relationship is maintained; therefore, be it

Resolved, That no change in the system of distribution of medical service be considered which does not fully permit the free choice of physician, dentist, and pharmacist, and the maintenance of the traditional patient-physician, dentist, or pharmacist relationship.

THE PACKAGE LIBRARY

Authors of surgical, medical, or special articles published in state or national journals within the past 10 years are requested to submit duplicate reprints of such articles to the Librarian, The Medical Society of the State of Pennsylvania, 230 State Street, Harrisburg.

By this coöperation we hope to build up an adequate package library service as quickly as possible.

LIBRARY COMMITTEE.

COUNCILOR DISTRICT MEETINGS

There will be a meeting of the Third Councilor District on July 31 at Skytop Lodge in the Pocono Mountains. The morning meeting will convene at 10 o'clock, Eastern Standard Time. There will be a combined meeting of the Eighth and the Ninth Councilor Districts at Pine Crest Country Club, near Brookville, on August 1, beginning at 10:30 a. m., Eastern Standard Time.

CONTRIBUTIONS TO MEDICAL BENEVOLENCE FUND

The Committee on Medical Benevolence makes grateful acknowledgment of the following contributions to the Fund:

Woman's Auxiliary, Allegheny County Medical Society	\$522.00
Woman's Auxiliary, Delaware County Medical Society	100.00
Woman's Auxiliary, Luzerne County Medical Society	100.00
Woman's Auxiliary, Lancaster County Medical Society	75.00
Woman's Auxiliary, Berks County Medical Society	60.00
Woman's Auxiliary, Huntingdon County Medical Society	40.00
Woman's Auxiliary, Washington County Medical Society	30.00
Woman's Auxiliary, Clearfield County Medical Society	25.00
Woman's Auxiliary, Clinton County Medical Society	25.00
Woman's Auxiliary, Lebanon County Medical Society	25.00
Woman's Auxiliary, Montour County Medical Society	10.00
Woman's Auxiliary, Warren County Medical Society	10.00
Mrs. Edgar S. Buyers, Norristown	5.00

Total contributions since 1934 report \$2072.00

CHANGES IN MEMBERSHIP OF COUNTY SOCIETIES

The following changes have been reported to June 14:

ALLEGHENY: *New Members*—William S. Broadhurst, Imperial; Harry Loikrec, 3053 Brighton Road, N. S., Sidney Rosenberg, 3401 Fifth Ave., Pittsburgh. *Removal*—Theodore Baker, Jr., from Wilkinsburg to 166 Market St., Blairsville (Ind. Co.); John W. Cristler from Midland to Shippingport (Beaver Co.); Richard K. Dalrymple from Millersburg, O., to 518 State St., Wilson (Wash. Co.); Robert D. Donaldson from Pittsburgh to 133 Biddle St., Kane (McKean Co.); John W. Lauler from Jersey Shore to Port Allegany (McKean Co.); John I. Wiseman and Katherine S. Wiseman from Mayview to Torrance State Hospital, Torrance (West. Co.). *Resignation*—Agnes Burns Ferguson, New Hope. *Death*—Wm. E. Hart, Pittsburgh (Johns Hopkins Univ., '09), June 12, aged 53; David H. Cooper, Pittsburgh (Univ. Pgh., '23), June 12, aged 37.

ARMSTRONG: *New Member*—John Wm. Welsh, Leechburg.

BERKS: *New Members*—Frederick C. Heath, 918 Elizabeth Ave., Laureldale; Warren L. Trexler, Top-
ton.

BLAIR: *New Member*—Howard A. Kerr, Martinsburg. *Reinstated Member*—Oliver F. Andrews, Hollidaysburg.

BUCKS: *New Members*—Victor B. Ellin, Morrisville; Elwood E. Koonce, Ottsville; Joseph Pasceri, Bristol.

CARBON: *Removal*—Walter M. Smith from Lehigh-ton to Richlandtown; John F. Boyer from East Mauch Chunk to 16 N. Second St., Allentown (Lehigh Co.).

CHESTER: *New Members*—Anthony W. Baugh, Paoli; Thomas D. Clayton, Coatesville. *Transfer*—Robert R. Hays, Pennhurst, from Montour Co. Soc.

CLEARFIELD: *Removal*—Thomas J. Lewis from Woodland to Vet. Ad. Hospital, Leavenworth, Kansas.

CUMBERLAND: *Removal*—J. Bruce McCreary from Harrisburg to Shippensburg.

DAUPHIN: *Transfer*—James A. Hamma, Harrisburg, from Allegheny Co. Society. *Death*—Marion Ulrich, Millersburg (Coll. Phys. & Surg., Balt., '80), Apr. 22, aged 84.

DELAWARE: *New Members*—Carl A. Staub, 1010 Main St., Darby; Philip Jaisohn, 10 South Ave., Media.

ELK: *Death*—John W. Warnick, Johnsonburg (West Penn Med. Coll., '96), Apr. 12, aged 71.

ERIE: *Reinstated Member*—Amos G. Rees, Corry.

GREENE: *New Member*—Richard S. Clark, Nema-colin.

INDIANA: *Death*—James C. Glasser, Blairsville (Med. Chi. Coll., Phila., '14), May 18, aged 48.

JEFFERSON: *Death*—Francis C. Smathers, Punxsutawney (Jeff. Med. Coll., '05), May 7, aged 57; William F. Beyer, Punxsutawney (Jeff. Med. Coll., '79), May 24, aged 84.

LACKAWANNA: *New Members*—Lawrence G. Arnese, 507 Church St., Jessup; Richard J. Kilhullen, 576 Main St., Archbald; Philip Henstell, 802 N. Main St., Forest City; Charles J. Wivell, 735 N. Main Ave., Joseph P. Reilly, 2622 Birney Ave., Edward P. Swartz, Medical Arts Bldg., Scranton. *Removal*—W. J. Corcoran from Old Forge to 1536 N. Washington Ave., Scranton. *Death*—Connell E. Murrin, Scranton (Jeff. Med. Coll., '04), June 5, aged 60.

LANCASTER: *New Member*—John V. Sterrett, 420 S. Duke St., Lancaster.

LUZERNE: *New Member*—James Adrian Conlan, 40 Church St., Pittston.

LYCOMING: *Removal*—Barton Brown from Gloucester, N. J., to Quar. Sta., Reedy Is., Port Penn. Del.

McKEAN: *Removal*—Christopher J. Mogan from Bradford to Ambassador Hotel, Indianapolis, Ind.

MONROE: *New Member*—Marshall R. Metzgar, Stroudsburg.

MONTGOMERY: *New Members*—Irwin J. Nelowet, Collegeville; John E. Griffith, Bryn Mawr.

PHILADELPHIA: *New Members*—Glen G. Gibson, 3701 N. Broad St., Charles W. Charny, 1941 N. 32d St., Edward Stewart Gifford, Jr., 1723 N. 16th St., E. John Presper, 2161 E. York St., Ralph C. Hand, 2609 S. 71st St., Louis M. Lieberman, 4233 Westminster Ave., Ralph W. Mays, 5910 Greene St., Gtn., Philadelphia. *Reinstated Member*—Victor I. Seidel, 1610 Spruce St., Philadelphia. *Death*—Delno E. Kercher, Philadelphia (Univ. Pa., '95), May 6, aged 66; Wilbur P. Klapp, Philadelphia (Univ. Pa., '88), May 10, aged 72; William Jackson Merrill, Philadelphia (Univ. Pa., '02), May 10, aged 66.

SCHUYLKILL: *Reinstated Member*—George H. Boone, Pottsville.

WESTMORELAND: *New Members*—Thomas Ceraso, 421 Franklin St., Vandergrift; Joseph F. Lechman, 122 Depot St., Latrobe.

YORK: *New Member*—Jackson W. Allison, 735 E. Market St., York.

PAYMENT OF PER-CAPITA ASSESSMENT

The following payment of per-capita assessment has been received since May 15. Figures in first column indicate county society numbers; second column, State Society numbers:

May 15	Wayne-Pike	20	7736	\$7.50
16	Berks	135	7737	7.50
17	Greene	26	7738	7.50
20	Delaware	147	7739	7.50
	Wayne-Pike	21-22	7740-7741	15.00
	Monroe	26	7742	7.50
22	Delaware	148	7743	7.50
23	Bedford	17	7744	7.50
	Northampton	129-135	7745-7751	52.50
	Allegheny	1272-1278	7752-7758	52.50
24	Northumberland	82	7759	7.50
	Potter	12	7760	7.50
25	Delaware	149	7761	7.50
	Lackawanna	253-256	7762-7765	30.00
29	Montgomery	182-183	7766-7767	15.00
31	Luzerne	314-315	7768-7769	15.00
June 1	Bucks	51-53	7770-7771	15.00
	Philadelphia	2038-2075	7772-7809	285.00
3	Allegheny	1279-1284	7810-7815	45.00
	Chester	97-99	7816-7818	22.50
	Schuykill	144-6, 148	7819-7822	30.00
5	Lancaster	169-170	7823-7824	15.00
	York	140	7825	7.50
6	Dauphin	208	7826	7.50
	Erie	158	7827	7.50
	Erie*	153	8061	7.50
	Clarion	29	7828	7.50
7	Montgomery	184	7829	7.50
	Westmoreland	143-151	7830-7838	67.50
8	Berks	158-159	7839-7840	15.00
	Blair	56, 96-97	7841-7843	22.50
	Clearfield	62-63	7844-7845	15.00

* 1934 dues.

A MESSAGE FROM THE PRESIDENT

To the members of The Medical Society of the State of Pennsylvania:

IN RE: 1935 LEGISLATIVE SESSION

A REVIEW. A WORD OF THANKS. THE FUTURE

The session just passed was a momentous one for the physician on account of the introduction, for the first time, of bills to socialize medicine. It is not necessary to go into detail concerning the 2 bills as proposed because the provisions of these bills are well known to all of you, but the end of this discussion has not arrived. It will be revived again at future sessions of the legislature.

In support of this a resolution was passed in the late hours of the meeting of the legislature, giving the governor the right to appoint a commission of 9 members "to study and report back, at the next session of the legislature, proposed legislation for socialized medicine."

The Chiropractic Bill, which if passed would have broken all barriers concerning the practice of chiropractic in Pennsylvania, failed of passage by the Senate and the House of Representatives.

The original Optometry Bill, which would have given the optometrists power to treat all diseases of the eye, was amended.

On account of the defeat of the administration's Workmen's Compensation Bill, we are still subject to the provisions of the old law. The amendments failed due to lack of concurrence between House and Senate. As usual, many plans were abrogated.

I want to thank Dr. C. L. Palmer and the members of the Committee on Public Health Legislation for the fine work they performed during the past session of the legislature. My thanks are also given to the chairmen and the members of the legislative committee of every county medical society, and for the help given by the dental, nursing, and pharmaceutical professions. My appreciation and thanks are extended also to the entire membership of our State Society for the wonderful support they gave me in this legislative program.

I am more than ever convinced, notwithstanding the fine work performed by Dr. Palmer and the county legislative chairmen and all those interested in our welfare, that it is absolutely essential to have a lay representative to look after legislation. We need the guidance of one who can give legislative advice based on experience.

Sincerely yours,
MOSES BEHREND, *President*.

COMMITTEE ON SCIENTIFIC WORK

STANLEY P. REIMANN, M.D., *Chairman*,
Philadelphia

PROGRAM OF THE SECTION ON PEDIATRICS

The officers of the Section on Pediatrics believe that they have an excellent program to offer this year. There is a great variety of subjects, and the participants are all men of authority or are noted for the amount of work and time applied to their specialty.

The program will be opened with an address by Dr. Edith MacBride-Dexter, Secretary of

Health of the State of Pennsylvania. She will outline the plans which she intends to follow in the reorganization of the Health Department. Following Dr. MacBride-Dexter will be an arrangement not tried heretofore, that is, to have one guest speaker follow the other on the same day. Dr. E. V. McCollum, Baltimore, professor of biochemistry at Johns Hopkins University, will read a paper on "Recent Advances in Nutrition." Dr. McCollum has done a great deal of work along this line and was selected by the American Academy of Pediatrics to act as chairman of a panel discussion on nutrition. Dr. T. Wingate Todd, Cleveland, Ohio, the second guest speaker, is professor of anatomy at Western Reserve University. His subject will be "The Clinical Significance of Skeletal Roentgen-ray Assessment in Children." Much of Dr. Todd's work has been original, and he will have new material which will be extremely interesting.

Dr. Chevalier Jackson, Temple University School of Medicine, Philadelphia, will present a paper entitled "Recent Advances in the Bronchoscopy of Children."

On Tuesday evening at 6:30 p.m., the Pediatrics Section will sponsor an informal subscription banquet in honor of Dr. J. P. Crozer Griffith, emeritus professor of pediatrics at the University of Pennsylvania. This will be a unique affair and we expect many friends of Dr. Griffith, not only in the State of Pennsylvania but in other states, to be present. The 2 guest speakers will be there. At this dinner Dr. Griffith will present a paper entitled "History and Recollections in the Development of Pediatrics in Philadelphia." This dinner will begin sharply at 6:30 and every effort will be made to complete the program by 8 p.m., so that the members present may go to the Masonic Temple for the Dauphin County Medical Society entertainment.

On Wednesday, Oct. 2, at the Harrisburg Hospital, there will be a clinic, which will be divided into 3 one-hour periods. The first period will be the presentation of cases by physicians of Dauphin County, including Drs. Arthur L. Page, Mary E. Clough, Henry R. Douglas, Richard R. Spahr, and Mary Riggs Noble. The second period will consist of illustrative health examinations for each age period by the following Philadelphia doctors: (1) Newborn, Charles A. Fife; (2) infant, J. Claxton Gittings; (3) preschool child, Emily P. Bacon; (4) school child, Howard Childs Carpenter; (5) adolescent boy and girl, Frederick J. Kalteyer. The third period of this clinic will be the presentation of cases illustrating the commoner types of mental

deficiency by Dr. Archibald Laird, Polk, Pa. On this same day Dr. Harry M. Little, Pittsburgh, will discuss "The Application of Mental Hygiene Methods in Pediatric Practice," and Dr. Allen M. Kerr, Pittsburgh, "The School Physician and the Pediatrician." Dr. Ellsmer L. Piper, Pittsburgh, will present "Our Present Conception of the Treatment of Pneumonia in the Child in the Home."

On Thursday, Oct. 3, a variety of subjects are on the program including xanthomatosis, congenital ectodermal defect, thymus and pineal glands, neurosurgery in children, Emergency Child Health Committee activities of Pennsylvania, pediatric therapeutics, modern methods of preventing measles, and the eradication of diphtheria from Pennsylvania.

COMMITTEE ON PUBLICITY

MATTHEW H. SHERMAN, M.D., *Chairman*,
Harrisburg, Pa.

GOLF TOURNAMENT

The members of the Golf Association of The Medical Society of the State of Pennsylvania invite and urge every member of the society who expects to attend the annual meeting at Harrisburg to bring his golf clubs and play in the tournament, which will be held at the Harrisburg Country Club, Monday, Sept. 30.

You will enjoy playing this course as it is not only a very sporty one, but the natural beauty, with the clubhouse overlooking the Susquehanna river, makes it the ideal meeting place for the tournament.

The local committee has succeeded in procuring a large number of prizes. Forget your troubles and come prepared to join your fellow practitioners in an entire day of golf and nineteenth hole entertainment.

The chairman of the local committee is Dr. Park A. Deckard, 814 N. Second Street, Harrisburg, to whom inquiries should be addressed and from whom entry blanks may be obtained.

THE SCIENTIFIC EXHIBIT

Those attending the convention at Harrisburg will be pleased to find the scientific exhibit, the commercial exhibit, and the scientific meetings all under the same roof. You will be able to drive to the Farm Show Building, Maclay Street, find ample parking space, remain at the sessions all day, observe the various exhibits, and eat lunch in the cafeteria without leaving the building. This will be a novel experience for those attending the convention.

The scientific exhibit itself will present phases of medicine both familiar and unfamiliar. Not only the more important new developments will be stressed, but also a great number of the points in medicine which become more valuable as their familiarity increases will be emphasized. For example, there will be exhibits on the experimental production of enlargement of the prostate and other accessory organs in the rat, endocrine studies in breast tumors, studies on the effects of huge doses of the estrus-inducing hormones, endocrine disorders in children, the clinical value of hormone assays, carcinoma of the colon, rectum, and larynx, dietary therapeutics, eclampsia, the medical and surgical aspects of hyperthyroidism, a new milk therapy for peptic ulcer, mental hygiene, hospital administration, industrial toxicology, clinical biochemistry, fundamental diagnostic tests, chronic arthritis, and many other subjects of equal value and interest.

Among the exhibitors listed to date are: Edward J. Klopp, Damon B. Pfeiffer, Henry L. Bockus, Robert H. Ivy, Jesse O. Arnold, Charles Mazer, George E. Pfahler, and Ralph Pemberton, all of Philadelphia; Charles F. Geschickter, Baltimore; Frank H. Lahey, Boston; E. Perry McCullagh and Allen Graham, Cleveland; Harold J. Foss, Danville; Murray B. Gordon, Brooklyn; and a large number of others familiar to the physicians of Pennsylvania.

The number of scientific exhibits totals about 50, and their quality is such that every physician will be well repaid for the time he spends in the Scientific Exhibit.

EMERGENCY MEDICAL RELIEF IN PENNSYLVANIA

HAROLD A. MILLER, M.D., *Director*
Harrisburg

The Emergency Relief Department has several positions open for full-time camp physicians. Applicants must receive the endorsement of the local Advisory Committee, and the officers of their county medical society. Those applying should address their letters in care of Dr. Harold A. Miller, Director of Emergency Medical Relief, State Emergency Relief Administration, Harrisburg, Pa.

County Society Reports

BERKS

May 14, 1935

The meeting was held at Medical Hall, Reading, Pa., President William L. Krick presiding; 57 members

and guests were present. John Atlee, Jr., of Lancaster, spoke on the value and advantages of postgraduate instruction in the form of seminars conducted by the various county societies. Dr. Atlee is a member of the State Society Committee engaged in promoting this important work.

Garfield G. Duncan, of the Graduate Hospital, Philadelphia, gave an address on "The Practical Consideration and Treatment of Diabetes." Dr. Duncan said in part:

The study of diabetes is important and is becoming more so. The death rate from this disease is increasing, and also the number of cases; the increase is in females more than age 45. This does not apply to males and not to the younger females. Children come under another group. Every diabetic child who lives presents a new problem. There are children living who have had diabetes from 12 to 18 years.

In the practical consideration and treatment of diabetes, it is important to have a definite plan. The blood sugar should be controlled and kept normal at all times. In older patients it is best to keep the blood sugar below 160, as a higher content tends to increase chronic diabetic changes such as cataracts and peripheral diseases of the arteries producing gangrene.

With the proper instructions, patients will become well. Give them a general knowledge of diabetes. Lend them books on the subject. Teach as many as possible to compute their own diets, so that if the amount of carbohydrate content in the diet is to be raised, they will know how to do it. Instruct them in the weighing and measuring of their diets. Patients who take more than 2 doses of insulin a day should weigh their food. Those who take less than 2 doses may measure their food. Teach them to examine their own urine. If they are taking insulin, an evening specimen should be examined, and if they are not, a morning specimen. If sugar is present in the urine, and the patient is taking insulin, specimens should be examined 2, 3, or 4 times a day, and a very accurate record taken of the time sugar appears. In case of infection, give them instructions what to do. The care of the feet should be stressed, also the danger in breaking needles under the skin as they are very difficult to find.

There are several different types of diets to be used in the treatment of diabetes, namely, high carbohydrate diet with low calories, high carbohydrate with unlimited calories, and a high fat diet. In working out the diets, adults should be given two-thirds of a gram of protein per kg. of body weight. A child requires more, 1.5 to 2.5 and sometimes 3 gm. The carbohydrates depend on the weight of the patient and whether or not the patient requires insulin. If the patient does not need insulin, begin the carbohydrates at or below 100 gm. for an adult. If the patient needs insulin, begin at or above 100 gm., gradually increasing until the maximum is about 160 gm. The total calories are the most important. Estimate the calories according to the patient's weight. If you wish to reduce a patient's weight, the rule is to give 15 calories per kg. of body weight; to retain the same weight, 25 calories; to increase weight, 35 calories. Given the desired quantity of protein and the total calories, subtract the lesser from the greater and divide the difference by 9; this equals the number of gm. of fat.

Although many patients who do not need insulin are receiving it, not every diabetic patient can be controlled by diet alone. When necessary, insulin should be given. Obese diabetics, without complications, never need insulin even though their blood sugar is up to 500 mg.

If insulin is given, they will require a larger quantity to reduce their blood sugar. The same results can be accomplished by reducing their weight. Any factor that will decrease the total metabolism will decrease weight. Patients whose weight it is desirable to increase should be given insulin. Children need insulin because, in the treatment of normal growth, metabolism increases.

Regardless of age or weight, all patients need insulin during the course of an infection. If insulin is not given to them they are apt to recover from the infection with more severe diabetes than before. The total metabolism is increased in the presence of fever.

A patient with a normal weight will probably get along with one dose of insulin given before breakfast. Starting with 6 to 8 units, insulin should be increased if sugar is present in the urine. If 18 to 20 units are required, divide the dose, giving half before breakfast and half before supper. In determining which dose to increase, a specimen of urine should be examined at 7 and 11 a.m., and 4 and 10 p.m. If sugar is present in the 11 a.m. specimen, the prebreakfast dosage of insulin is insufficient. If present at 10 p.m., the evening dose is insufficient. Add 1 or 2 more units to the insufficient dose until the specimens are sugar-free, and until 20 units have been reached. If more than 20 units are required, 3 doses of insulin should be given until the specimens are sugar-free.

In thin diabetics, a point is reached at which any more insulin will result in hypoglycemia in the evening, and a hyperglycemia before breakfast. Blood sugar rises after the evening dose has been exhausted, and a high blood sugar shows in the morning. This is lost during the day. To overcome this a dose of insulin should be given earlier in the morning, one-half to 2 hours before breakfast; and a late dose, at 9 or 10 p.m., cutting short the night period without insulin. If need be, patients may keep part of their supper or the fruit from the evening meal until they take the last dose of insulin.

An increase in diet, weight, total metabolism, hyperthyroidism, or pregnancy increases the need for insulin. Following loss of weight, removal of foci of infection, and thyroidectomy, insulin should be decreased. Intravenous glucose administration controls the atypical findings in insulin hypoglycemia, such as disorientation, the urge to work crossword puzzles, emotionalism, signs of hemiplegia, and paralysis.

Young patients receiving large doses of insulin sometimes complain of dimness of vision, which is due to the dosage of insulin and not to the lowering of the blood sugar. Water retention in the eye will disappear when the insulin dosage has been established. Refraction should not be done for 2 or 3 months.

In case of complications, acute infections, or anything that tends to increase metabolism, a higher carbohydrate allowance should be given rather than a lower one, even up to 250 gm. In acute cases, such as pneumonia, give 60 to 70 gm. of protein, 250 gm. of carbohydrates, and enough total calories to prevent loss of weight. Divide the diet into 5 equal feedings evenly distributed through the 24 hours, also giving 5 equal doses of insulin. This treatment can be carried out on postoperative cases. Patients can be controlled very well on this plan.

In case of ketosis, keep the patient warm and give an adequate amount of insulin. Give an enema after starting the insulin; the delay in response may be due to faulty bowel evacuation. Give smaller and more frequent hypodermic injections; as the dosage increases

the ketosis decreases. Ten per cent glucose may be given intravenously. If the patient is in a comatose condition or complains of nausea, wash the stomach with one-half dram of sodium bicarbonate and sodium chloride.

The majority of children with ketosis have abdominal pain, and not a few are operated upon for acute conditions within the abdomen because of fever. If sugar is present in the urine, pass the stomach tube and withdraw the contents of this organ. The pain will disappear, having been caused by distention of the stomach.

The diabetes of pregnancy is mainly a question of diet. Do not reduce overweight patients. Give a maintenance diet. Begin insulin at once, as soon as the condition is diagnosed. During the first 3 months of pregnancy, the insulin requirement increases because of the increased total metabolism. During the fourth and sixth months the insulin requirements remain constant. After the sixth month, if necessary, increase the insulin to keep the blood sugar normal. The fetal pancreas may assist the maternal gland, so that a patient needing insulin before, may not require any during the last 3 months. Although the need for insulin may almost disappear in the last 3 months, it usually reappears after delivery. The baby may die of hypoglycemia if the mother does not receive enough insulin. It is better to spare the child the danger of hypoglycemia by keeping the blood sugar normal throughout pregnancy.

June 4, 1935

The regular monthly meeting was held at the Berks County Tuberculosis Sanatorium; President William L. Krick presided; 44 members and guests were present. John Bisbing, medical director of the Berks County Tuberculosis Sanatorium, addressed the society on "Pulmonary Tuberculosis," illustrating his talk with roentgenograms which were presented by Charles Dietrich, roentgenologist of the Sanatorium. Dr. Bisbing said in part:

Tuberculosis is found in 2 forms, acute and chronic; under the acute variety are tuberculous lobar pneumonia and tuberculous bronchial pneumonia. Acute tuberculosis occurs in less than 10 per cent of patients.

Acute lobar tuberculosis occurs in adults and in those patients who have suffered a previous attack of tuberculosis. The onset is marked by pain in the chest with rapid rise in temperature. In 36 hours the temperature rises from 104° to 106° F., with pulse rate from 110 to 130 and respirations 60 to 80. Acute tuberculous pneumonia is one disease in which there is a change in the pulse and respiratory rate from the normal 4 to 1 proportion to a 2 to 1. Increased respirations, night sweats, and cough with expectoration occur during the early stages, followed by hemorrhage of bright red blood in 7 to 10 days. Diagnosis is made by the history of the patient and the finding of tubercle bacilli in the sputum. Roentgenograms show caseous necrosis and cavitation. The management of this type of tuberculosis is quite difficult and the prognosis is very grave. The mortality rate is greater than 75 per cent. Death occurs within 4 weeks to 4 months. In case of pseudo-recovery, chronic ulcerative tuberculosis follows, with death occurring in one year's time.

Acute tuberculous bronchial pneumonia occurs in Negroes and in children after childhood diseases. The course of the disease is about the same, with marked dyspnea and cyanosis.

The chronic form, occurring in 90 per cent of cases, is seldom seen in its incipency because the subjective

symptoms are few. The patient complains of catarrhal symptoms with a cold lasting 2 to 3 weeks, with loss of appetite and weight. Hemoptysis is a good danger signal, leading the patient to seek medical advice. The findings are only physical, with lesions at the apex. There are very few percussion changes. Crepitant râles are present only after cough followed by expectoration. The diagnosis is made by roentgen ray alone. Cough may be present, but not necessarily.

In the chronic ulcerative form, the onset is insidious with catarrhal symptoms, loss of appetite and weight. It may be pleuritic; pleuritis should be considered tuberculous until proven otherwise. It may be of a bronchial form, the patient complaining of morning fatigue, cough, and expectoration which at first consists of mucoid material, later assuming mucopurulent and even purulent characteristics (even lung tissue being coughed up).

It may take the form of a secondary anemia with low blood pressure, increased leukocytes and lymphocytes, or it may be suggestive of a hyperthyroid condition with tachycardia, nervousness, tremors, and loss of weight.

In early pulmonary tuberculosis, gastro-intestinal symptoms may predominate with nausea and vomiting and loss of appetite and weight.

In the lymphatic form, there is enlargement of the axillary and cervical lymph nodes. If the onset is laryngeal in character, hoarseness and aphonia may be present.

The symptoms indicating chronic ulcerative tuberculosis may be local, with cough, expectoration, dyspnea, asthenia, toxemia, lung destruction, and myocardial degeneration with chest pains and pleurisy, or they may be constitutional, with loss of weight, fatigue, afternoon temperature elevation, increased pulse rate (out of normal proportion with the temperature), and night sweats. In females, amenorrhea often occurs. The diagnosis of chronic ulcerative tuberculosis can be made from the history, physical examination, and roentgen-ray and laboratory findings.

The chronic fibroid type is characterized by an overgrowth of fibrous tissue. The symptoms are loss of weight and strength, dyspnea, and productive cough. The condition may persist 20 to 30 years, the patient dying from some other malady.

Medical treatment consists of rest in bed until temperature, pulse, and respiratory rates reach a normal level and the patient is symptom-free. There should be an abundance of rest, sunlight, fresh air, and good food. If the condition does not improve, surgical interference is indicated. Collapse lung therapy consists of artificial pneumothorax, phrenicectomy, and extrapleural thoracoplasty.

PEARL E. HACKMAN, *Reporter.*

CHESTER

May 21, 1935

The meeting was held in the auditorium at the Veterans' Hospital, Coatesville, and was a joint session of the Medical Society and the Woman's Auxiliary. Luncheon was served. Under the leadership of Dr. Pierce, the Coatesville Veterans' Hospital orchestra gave a half hour's program. The scientific session was in charge of J. Ashbridge Perkins.

David H. Bergey, of the National Drug Company and formerly a member of the Department of Bacteriology at the University of Pennsylvania School of

Medicine, spoke of the laboratory aspects of the preparation of specific serum in the treatment of pneumonia. He outlined the dual mode of immunization of horses: First, against the toxic substances and, second, against the bacteria themselves. In the immunization of horses, typical strains of Types I, II, and III are used. The greatest amount of serum is obtained from Type I and the least from Type III. Until recently, 65 per cent of pneumonia cases were due to either of these 3 types. The remaining 35 per cent were due to Type IV, comprising 29 different strains. In other words, 32 types of pneumococcus made up a factor in the etiology of pneumonia. During the past winter, however, 70.9 per cent were due to Type IV; 11.1 per cent to Type I; 10 per cent to Type II; and, 7.7 per cent to Type III.

Claude P. Brown, of Philadelphia, who presented the clinical phases of this subject, reiterated some of the facts given by Dr. Bergey, and stated that the virulence of the various organisms depends on the carbohydrate fraction. The latest methods of reduction have reduced greatly the volume of antipneumococcic serum necessary to be used in the treatment of the disease. The serum is used at intervals of 6 to 8 hours. An average total dose of approximately 30 c.c. given intravenously causes a disappearance of the bacteria in the blood stream. The average dose of serum given is 3.3 c.c. Of approximately 100 cases treated with this serum at the Philadelphia General Hospital, the mortality was about 20 per cent, a marked improvement over the mortality results of treatment with other sera in this disease. Dr. Brown's general conclusion was that the serum is probably the best available at the present time.

At the business session the report of the Economics Committee was adopted; the report included a request that at least 2 members of the medical staffs of each of the various hospitals in Chester County be made actual members, with voting power, of the board of directors of their respective hospitals. It was further recommended that medical representation on all boards of health in Chester County be sought, and that the county coroner be of necessity a physician. In order to accomplish this, it will be necessary to create favorable public sentiment, and paid articles should appear in the local newspapers explaining why these public officials should be doctors of medicine. The Public Health Commission was assigned the matter of the mental health clinic now being proposed by the West Chester State Teachers' College, with authority to make whatever study of this situation that it may see fit. At the request of the Medical Economics Committee, a series of classes on medical economics was proposed to take place in the fall, so that our members may become acquainted with the principles of this important subject. The Public Health Commission has reported nothing definite as yet concerning the county health doctor, and also recommends that the Chester County Health and Welfare Council be asked to cooperate with the county health program of the Chester County Medical Society now in full operation. A resolution from the National Medical Committee on Federal and State Contraceptive Legislation was recommended to be presented to the society at the June meeting.

John A. Farrell spoke on House Bill No. 494, now pending in the Legislature, making it illegal for any licensed physician not also licensed to practice chiropractic in Pennsylvania to make "examination of the human spine by observation, palpation, or roentgen-ray," or to practice "the adjustment of any or all misalignments of vertebrae or adjacent bones or tissues through the use of the hands." The society unanimously voted

in opposition to this bill and to convey the same to the members of the legislature from this district.

Copies of the Constitution and By-Laws, which were recently revised, were presented to the members present, and any member who has not received a copy may obtain one from the secretary.

Anthony W. Baugh, of Paoli, Thomas D. Clayton, of Coatesville, and Robert R. Hayes, of Pennhurst, were elected to membership.

June 18, 1935

The meeting was held at the Chester County Hospital. Luncheon was served. Vice-president Hughes presided.

J. Allen Jackson, superintendent of the Danville State Hospital, and chairman of the State Committee on Mental Hygiene, was the guest speaker. His subject was "Some Practical Phases of Mental Hygiene." He expressed his appreciation to this society for its coöperation with the Committee on Mental Hygiene of the State Medical Society. In discussing some practical phases of mental hygiene, he referred to the work of Clifford W. Beers, who had suffered a mental breakdown and had been confined to a Connecticut hospital, and who later devoted his life to the mental hygiene movement. The speaker stressed the necessity for coöperation between hospitals, clinics, the general practitioner, and the psychiatrists. It is important for the physicians to take more interest in the neurotic or psychoneurotic patient. In conclusion the speaker favorably discussed the malaria treatment of cases of general paralysis of the insane.

Dr. Jackson presented Dr. Peter Kwiterovich, assistant at the Danville State Hospital. Dr. Kwiterovich spoke on the use of atropine in the treatment of the Parkinsonian syndrome following encephalitis. He reviewed the etiology of encephalitis particularly in its relation to influenza, the symptomatology, and the prognosis. The treatment consists in the use of hyoscyne, parathyroid, and tincture of stramonium. The treatment of choice at Danville is the use of atropine sulphate, administering one-half of a 1 per cent solution, usually starting with one minim, 3 times a day, the dosage gradually being increased daily. After the administration of atropine, marked improvement was shown in the condition of some 20 patients.

The Executive Committee's report was devoted to the work of the Public Health Commission through its Public Health Doctor subcommittee. The County Commissioners have agreed to renew their offer to set aside funds for a Public Health Doctor at the rate of \$5000 annually. In the matter of the selection and direction of the Public Health Doctor, the Executive Committee recommended that this matter be left in the care of the Public Health Doctor Committee, which committee will first report to the Public Health Commission before consideration by the society. It was agreed by the society that if the Public Health Doctor Committee desires to nominate a candidate for the position of Public Health Doctor within the next few days, that such nomination should be referred to the Public Health Commission and Executive Committee for endorsement before making such recommendations to the County Commissioners.

The society endorsed a resolution from the National Medical Committee on Federal and State Contraceptive Legislation. John A. Farrell and Joseph Scattergood, Jr., were elected delegates to the State Convention, and Drs. Lewis, Waggoner, Gallagher, and Clark, alternates.

JOSEPH SCATTERGOOD, JR., *Reporter*.

DELAWARE

May 9, 1935

The regular meeting of the Delaware County Medical Society was called to order by President John Eynon at 9 p.m. There were two new members elected—one being a transfer from West Virginia. Frank R. Nethanle reported on the relief work and the trouble in correcting bills, and said, notwithstanding the statements from Harrisburg, the final decision in reality does *not* rest with the local committee. A report of the maternal welfare survey was made, in which the coöperation of the members of the society was asked in filling out the rather complicated questionnaire that would be sent to those attending obstetric cases.

The scientific program on the subject of "Partial Insanity as Affecting Legal Liability," was opened by Mr. W. I. B. McClenachan, first assistant district attorney of Delaware County. He said that the interest in the subject was due to a recent case in the Supreme Court. The common law originally rested on what was known as the wild beast status; that is, if anyone had intelligence above that of a wild beast or a child, age 4, he was held responsible for his acts. This in the common law was followed by what is known as the right and wrong status, namely, the recognition of the difference between right and wrong. This provided for the intelligence of a child, age 14. With this basis in common law certain legislative acts have been passed that modify the present status. Under the head of partial insanity he classed 3 conditions: Monomania; irresistible impulse; and subnormal mentality.

In 1843 there was a test case in which it was decided that a party committing a crime must be laboring under a mental state so as not to know the nature of his act at the time of the crime. The law as applied to monomania has been severely criticized.

In the case of irresistible impulse, the accused may have known the nature of his act but was unable to resist because of an impulse that drove him to the deed. Since criminal intent is necessary, one who has an irresistible impulse over which he has no control is without criminal intent. Some judges have raised the question whether the impulse was irresistible or simply unresisted.

There is a question whether there is a definition at present in the law of Pennsylvania regarding partial insanity. Mr. McClenachan said it would be well for the courts to disregard the term and consider the patient mentally unsound or below par in judgment and moral control. Then the question arises: Should such a person be treated as insane or should he be held responsible?

In Pennsylvania there was legislation in 1933 that allowed the judge to defer a case until a mental examination could be made so that the question of partial insanity might be determined by the Court. This may lessen the severity of the punishment after the person has been charged guilty by the jury. Up to the present time this has been applied only in murder cases.

In New York the question is in the hands of the jury and it can easily be seen that blundering errors may be expected if the decision is left to a group of people unacquainted with mental disorders.

E. ARTHUR WHITNEY, *Reporter*.

LUZERNE

June 5, 1935

The meeting was held at Wilkes-Barre; President Joseph P. Dougherty, Ashley, presided. Joseph J.

Miller and George Teitsworth were elected members. Delegates elected for the House of Delegates, State Society, are Lewis T. Buckman, Thomas R. Gagion, Albert R. Feinberg, and Charles L. Shafer. The district censor is Herbert B. Gibby.

Peter O. Kwiterovich, Danville State Hospital, read a paper on "The Use of Atropine in the Treatment of the Parkinsonian Syndrome." He said in part:

In 1817 this condition was called the "shaking palsy." The age groups now range from age 40 to age 60 with the average age of 50, and if a patient is below age 30 the condition warrants a special case report. Following encephalitis and the 1918 influenza epidemic many cases were recorded, even in children. In Germany it was described as accompanied by brain symptoms, somnolence, *etc.*, and was called sleeping sickness. From 1910 to 1917 reports appeared of epidemics of encephalitis in Vienna, with the influenza epidemic spreading to other countries. This can be called a new disease. There is a relationship between epidemic influenza and the parkinsonian syndrome. The youngest patient in Dr. Kwiterovich's group was 16; the oldest was 61. There were 20 cases with influenza or encephalitis.

Pathologists say 2 separate lesions are found. In the parkinsonian syndrome they state they are in the substantia nigra. There is atrophy and degeneration of the ganglion cells of the pallidum and the blood vessels are full of lipoidal material. Both lesions involve the extrapyramidal motor tracts which control muscle tonus. Injury may also be a factor in causing the disease, a slumbering paralysis agitans.

The symptoms are headache, vague pains in the arms, oscillation of the fingers, looseness of the hand grip, and rigidity of the leg with tremors. Shaking finally is transferred to the opposite leg and hand. Rigidity of the facial muscles is present, hence the mask-like expression, latero- or retropulsion, and rigidity of the body. There are no sensory symptoms and no early mental symptoms, but later a psychosis is often present. These patients require constant nursing care, especially because of salivation. It is a chronic, progressive disease, lasting from 5 to 15 years, the patient finally becoming an invalid.

Diagnosis rests upon the history of influenza or encephalitis with the previously mentioned symptoms.

Treatment has consisted of the use of parathyroid, one-tenth gram, with hyoscine, one-one hundredth gram, twice daily; or tincture of stramonium. In the past 2 or 3 years atropine has been used. Bremer has found that most of these patients are hyposensitive to atropine. It was first used by Dr. Hays in Oklahoma.

The dose is one drop t.i.d. of 1 to 1000 solution on the first day; 2 drops t.i.d. on the second day; 3 drops t.i.d. on the third day; 4 drops t.i.d. on the fourth day; then 4 drops t.i.d. for the next 4 days. Next increase the dosage a drop a day until 8 drops t.i.d. are being administered, then hold at this dose for 4 days. This can be increased further until better results in the symptoms are observed, and then reduced until the patient gets a reaction and the symptoms are worse. The dose should then be increased again, until the dosage is reached which results in improvement in the patient's condition, and the dose held there. Each patient has a different tolerance to the drug and so few have the same dosages.

Atropine acts on the motor centers of the brain and paralyzes the fibers of the parasympathetic system; it paralyzes the myoneural junction; it dilates the pupils, inhibits the vagus fibers, and slightly increases the blood pressure. There are no marked changes in the blood

pressure. There have been no alarming symptoms in respiration, pulse, or blood pressure in treating these cases.

If symptoms of poisoning appear, stop the drug, put the patient to bed, give gastric lavage, stimulate and give one-sixth gram of pilocarpine.

Atropine does relieve the tremors, rigidity, and salivation. It can be given in large doses without toxic symptoms. The question arises as to whether or not individuals are subject to the parkinsonian syndrome following influenza or encephalitis, and if so can it be controlled?

In discussion Thomas R. Gagion said, if atropine does give such good results (a patient had been shown and numerous case reports cited, with pictures of individuals before and after treatment) it surely is of value in treatment as is insulin, *etc.*, in other diseases.

Lewis T. Buckman said that he once had a patient who was being treated with stramonium and had extensive eye symptoms. Peter Kwiterovich stated that one-third of the atropine is eliminated by the kidneys, hence the reason for the tolerance. One patient is getting 150 drops daily. Dr. Gagion asked what the average daily dose is and was told 8 to 14 drops t.i.d. Alfred W. Grover stated he has an encephalitic patient now on stramonium and believes this treatment will help. Gorden E. Baker asked how extensively stramonium is being used. He found good results with it, and the kind and freshness of the preparation always makes a difference in the results. Dr. Grover again asked if there were any cases with real toxic symptoms. Dr. Kwiterovich answered that some patients develop nausea and vomiting which necessitates the discontinuance of the drug for 24 hours, after which it can be resumed.

MARJORIE E. REED, *Reporter*.

LUZERNE (HAZLETON BRANCH)

May 22, 1935

The meeting was held at the White Haven Sanatorium, White Haven, the society being entertained by the sanatorium staff at dinner. Charles A. Heiken, of Philadelphia, one of the consultants to the sanatorium, delivered an address on "Ambulatory Pneumothorax," and said in part:

The first time the literature records the use of artificial pneumothorax in this country was in 1898. Tice administered the therapy to ambulant cases at the Tuberculosis Hospital at Dunning. Hruby calls attention to field pneumothorax work under Joannides and others with a plan as follows: Patients who have definite indication for collapse therapy are sent to a pneumothorax clinic, where the initial treatment is administered. Each patient remains in the recovery room until it is certain that no immediate complications are likely to develop. He is then sent home and returns to the clinic whenever subsequent treatments are indicated. This plan reduces the burden of the taxpayer in the case of the poor patient. The per capita cost in sanatoria is \$20 or more per week, whereas the cost in the home for such treatment is only a few dollars per year. Moreover, by the use of such clinics, more beds are made available for poor patients who really need hospital care. In addition to this, patients are returned to work earlier by this method.

Kirch, Naer, O'Brien, and others believe that pneumothorax patients should receive hospital or sanatorium care, and advise such varying periods as from the first

few weeks following the initial operation to such time as the sputum becomes negative for tubercle bacilli.

Drolet, in speaking of collapse therapy, states, "Furthermore, artificial pneumothorax opens up an important field for the private practitioner." Formerly after diagnosing the case, all that one could do was advise sanatorium or institutional treatment. Nowadays it is entirely feasible to institute collapse therapy in suitable cases without having the patients leave their families and at times without even giving up work.

At the Philadelphia General Hospital pneumothorax was being done in isolated cases, in patients who had previously received sanatorium care, as early as 1925. In the routine clinical work many early and moderately advanced cases presented themselves for listing in the state sanatoria. The long period of waiting before these patients were called to the sanatoria and the lack of adequate home care were often responsible for the progress of the disease to the far-advanced stage before adequate treatment could be received. An adequate program to treat these patients from the beginning was adopted. The success of this procedure was so stimulating that it was agreed that the program be continued. The following types of cases were selected for this procedure: (1) Cases of minimal to moderately advanced unilateral lesions, especially those in young adults; (2) elderly nontoxic patients with unilateral lesions; (3) all patients with unilateral lesions who had a positive sputum or gave a history of hemoptysis; (4) patients giving a reliable history or physical signs of chronic pleurisy were excluded.

The technic of operation was designed to prevent any possible shock to the patient. Under one per cent novocaine anesthesia, air was allowed to enter the thoracic cavity by gravity, in amounts not exceeding 50 c.c. for the initial doses. The patient was kept on the operating table for a full half-hour after the operation, and was then removed to a recovery room for several hours. After this he was permitted to leave the hospital. The surprising absence of untoward symptoms led to discontinuing the period in the recovery room. All cases returned to the clinic after 48 hours, when 100 c.c. was introduced. This procedure was continued every other day until 250 to 300 c.c. was given, after which the patient was placed on a weekly refill schedule. This program was begun in 1928, the total number of patients thus treated being 15. The last analysis of this group in April, 1935, shows 90 per cent free from tubercle bacilli. Seventy-six per cent of the patients are working full time, and the others doing part-time work.

After the initial treatments the management of the ambulatory pneumothorax patient presents problems characteristic of all pneumothorax cases. The development of fluid during the course of treatments must be carefully watched for. Most cases of fluid will disappear if the amount of air is reduced, the interval between refills lengthened, and the patient kept at bed rest. Most operators are agreed that partial collapse is preferable to complete collapse of the lung. The complications such as fluid, a wide shifting of the mediastinum, and undue pressure symptoms causing circulatory embarrassment are not encountered in cases that are only partially collapsed.

Regarding the question of discontinuing treatments, the best policy is to continue refills, and gradually experiment with the case by lengthening the intervals between refills, and studying the reaction. A recurrence of symptoms such as cough, pyrexia, the presence of tubercle bacilli in the sputum, or hemoptysis should warrant a return to the original régime.

Indiscriminate initial treatments are not advised as a routine office or clinic practice. Treatment of certain patients may be started in the home, when conditions do not warrant removal to a hospital or a sanatorium. A group of cases was presented to demonstrate that pneumothorax is a relatively safe procedure. In some 7000 odd refills no accidental deaths have occurred at the Philadelphia General Hospital clinic. From the economic standpoint of both patient and community, the development of ambulatory pneumothorax clinics in every locality is worthy of our best efforts.

In discussion Marjorie Reed, of Plymouth, described her experience with some ambulatory cases. She asked the speaker's views about treatment of cases complicated by fluid, and asked when it is safe to allow the lungs to reexpand. Dr. Aiken, of the White Haven staff, said that Dr. Heiken deserves a great deal of credit for having continued this work in Philadelphia, especially in the face of official opposition in the old days, because of several cases of sudden death. The original 15 cases of Heiken's showed fine results. Only one developed fluid. The economic aspect is important. The ambulatory treatment saves beds for other patients and gets these patients out of institutions and able to work.

Joseph Alexis asked if febrile cases are treated by this method. George F. Burkhardt said he believed the state is going to provide funds for establishing pneumothorax clinics. He asked how physicians could learn the technic.

In conclusion, Dr. Heiken said the members of the staff at White Haven Sanatorium would be glad to give instruction in the work to any doctors from Hazleton. The technic also could be learned in the outpatient department of the Philadelphia General Hospital. Robert K. H. Charr, of the White Haven staff, showed roentgen-ray films and necropsy material of cases of pneumoconiosis which had been studied in the sanatorium.

JOHN M. DYSON, *Reporter*.

"Reach for a Sweet" Is Latest Scientific Advice.

The old slogan about reaching for a cigarette instead of a sweet may be all right for those who want to lose weight but for those who want to do some heavy thinking, it should be reversed.

Experiments showing that the brain gets its energy for thinking from glucose or sugar were reported to the American Physiological Society by Drs. H. E. Himwich and J. F. Fazikas of Yale University.

The brain takes sugar from the blood, breaks it up into simpler chemical combinations, and burns the lactic acid thus obtained to get energy just as a steam engine gets its energy from burning coal.

It was found accidentally that when nicotine is mixed with brain tissue in a flask, the brain cannot burn lactic acid but oxidation goes on just the same if glucose is present. So it appears that the brain has 2 ways of getting energy for thinking from glucose or sugar. Ordinarily it gets the energy via lactic acid, but if this is impossible, it gets the energy directly by burning the glucose.

The amount of nicotine that gets to the brain when a cigarette is smoked, however, is probably too small to affect the burning of lactic acid. Incidentally, nicotine is not responsible for the increased sugar in the blood caused by tobacco smoking, Dr. Ephraim B. Boldyreff of Battle Creek Sanitarium reported.—*Science News Letter*, April 27, 1935.

The Woman's Auxiliary to The Medical Society of the State of Pennsylvania

MRS. GEORGE C. YEAGER, *Editor*, 1419 E. Susquehanna Ave., Philadelphia, Pa.

STATE CONVENTION

The eleventh annual meeting of the Woman's Auxiliary to The Medical Society of the State of Pennsylvania will be held in Harrisburg, Sept. 30 to Oct. 3, 1935.

Harrisburg is honored in having this convention and is very anxious to reciprocate the kindnesses of others who have entertained us. Let us, by our attendance, honor our State President, Mrs. Laurrie D. Sargent, and strengthen the organization of which we are so proud to be a part.

Headquarters will be at the Penn-Harris Hotel, where all meetings will be held.

May I suggest that you make your hotel reservations early. Mrs. Josiah F. Reed, 508 North Second Street, chairman of hotels, will be happy to assist you.

Plans are being made for a golf and bridge tournament to be held at the Colonial Country Club, Monday afternoon, Sept. 30. Information about this affair may be obtained from Mrs. George F. Gracey, River Road, Harrisburg.

A detailed program of the convention will appear in next month's JOURNAL.

EUNICE E. (MRS. JOSEPH W.) SHAFER, *Chairman*,
CONVENTION COMMITTEE.

DISTRICT COUNCILOR WORK

The Woman's Auxiliary to The Medical Society of the State of Pennsylvania is composed of 11 councilor districts, which correspond to the councilor districts of the State Medical Society. The duties of the district councilors are: To organize new county auxiliaries where none exist but not without the sanction of the county medical society; to keep in close touch with the auxiliaries in their respective districts, advising and assisting them in any way, and acting as liaison officers between the county auxiliaries and the executive board; and to hold councilor meetings.

Of the 67 counties in the state, 49 are organized; 5 counties have affiliated with adjoining counties, there being no medical society organized in these counties. Venango County is the only county organized so far this year. The

Sixth and Ninth councilor districts have already held inspiring and instructive councilor meetings. The Fourth District will hold its councilor meeting at Eagles Mere, July 11; the Seventh Councilor District, at Williamsport, July 12; the remaining district councilor meetings are scheduled for September.

The county auxiliaries are functioning in a very efficient manner and all the district councilors are working for the best interests in their respective jurisdictions. The auxiliaries are making progress along social, educational, and philanthropic work, the Benevolence Fund being one of the most outstanding objectives. Much remains to be done but our work justifies our future existence.

Our auxiliary realizes its opportunities. We are living in an age of progress, an age when women's work is preëminent along all lines of activity.

We, as auxiliary members, have it in our power to make this auxiliary an ideal one in our efforts to conserve for the future all that has been accomplished in the past years.

Someone has said that the word "together" is the most inspiring word in the English language:

"Together is a beginning,
Keeping together is progress,
Thinking together is unity,
Working together is success."

GRACE E. (MRS. DAVID W.) THOMAS,
Chairman,
DISTRICT COUNCILORS COMMITTEE.

COUNTY AUXILIARY REPORTS

Chester.—The regular bimonthly meeting was held May 21 at the United States Veterans' Hospital, at Coatesville. Mrs. Howard Mellor presided. The officers elected are as follows: President, Mrs. Howard Mellor, of Scennelltown; president-elect, Mrs. Howard B. Davis, Downingtown; first vice-president, Mrs. U. Grant Gifford, Kennett Square; second vice-president, Mrs. John A. Farrell, West Chester; secretary, Mrs. Michael Margolies, Coatesville; treasurer, Mrs. Robert C. Hughes, Paoli. It was Reciprocity Day and visitors were present from 6 counties.

Plans are being made for a garden party that will be held at the home of Mrs. Howard Mellor, Scennelltown, on July 16. This is being given for the benefit of the Medical Benevolence Fund.

Dr. A. J. Pierce greeted the members and guests. He detailed the organization of the hospital, its rapid

growth in number of patients cared for during the 4 years of its existence, and the procedures used to help the veterans regain their health.

A group of guests and members were then taken on a tour of the hospital, at which time they were shown the workrooms and recreation facilities of the patients.

Erie.—The auxiliary held its monthly meeting and bridge luncheon June 3 at the Lake Shore Golf Club. Mrs. Clayton W. Fortune presided; 60 members were present. The auxiliary was honored by the presence of the State President, Mrs. Laurrie D. Sargent. Mrs. Frank B. Krimmel took office as president.

Indiana.—The meeting was held at Rustic Lodge, near Indiana, May 9. State officers from Washington, Lock Haven, and Pittsburgh were in attendance. There was a musical program and dinner was served.

In the Ninth Councilor District, 4 counties are organized and 2 are not. The Eleventh Councilor District was represented by 3 members. Jefferson and Armstrong counties are not organized. Butler, Clarion, and Venango counties were not represented, due to representation at the Tenth Councilor District meeting.

It was approved to send \$2.50 to help defray expenses for the national convention to be held at Atlantic City.

Mrs. Harry B. Neal and Mrs. F. J. Kellan were elected delegates to the A. M. A. Convention in Atlantic City in June.

Mrs. Laurrie D. Sargent, State President, spoke on the "Organization of the Woman's Auxiliary" and said in part: Each member should serve at least once as president and once as chairman of the Program Committee in order to appreciate the necessity for regular attendance at meetings. The social side is being well developed. No matter how many things we do, the auxiliary should come first above everything else.

Mrs. Walter F. Donaldson was detained at home on account of illness in her family, and was represented by Mrs. D. N. Bulford of Pittsburgh, State Chairman of Public Relations as well as Chairman of Public Relations in Allegheny County, who spoke on "The Summer Round-Up."

Mrs. David W. Thomas, chairman of the State District Councilor Committee, detailed the district work and impressed us with the fact that we should not start anything without the consent of the medical society. Her hobby is an auxiliary scrapbook, which she is making for the State Convention. It is to be dedicated to Mrs. Sargent.

Luzerne.—On May 23 the auxiliary held its third annual spring luncheon and bridge at the Irem Temple Country Club. There were 85 in attendance. Mrs. C. W. Prevost, president, presided.

Mrs. Charles Long, one of the delegates appointed by President Roosevelt from the United States to the International Penal and Penitentiary Congress which meets in Berlin, Germany, in August, spoke of her appointment to this Congress.

After the luncheon, bridge was played.

Lycoming.—The regular monthly luncheon and business meeting was held at the Women's Club at Williamsport, May 10. Mrs. James H. Burrows presided. During the meeting the eightieth birthday of Mrs. Ella Cummings was celebrated. Two new members were welcomed to the society. Since the beginning of the year the auxiliary has done work of a varied nature. This includes assisting in a concert and dance given by the Elks Glee Club, in which \$800 was raised for the

benefit of the Williamsport Hospital, and a rummage sale, from which the society received \$60.61. The auxiliary has made a contribution of \$150 to the Medical Benevolence Fund.

Schuylkill.—The May meeting of the auxiliary was held at the State Hospital, Fountain Springs, and was a social as well as a business meeting. Luncheon was served.

The members of the auxiliary were conducted through the hospital. Plans were made to hold a card party in order to raise money to afford the auxiliary a working capital.

Medical News

Births

TO DR. AND MRS. PHILIP J. MORGAN, of Kingston, May 19, a daughter.

TO DR. AND MRS. F. T. O'DONNELL, of Wilkes-Barre, May 16, their sixth son.

TO DR. AND MRS. FREDERICK B. LITTLE, of Norristown, a daughter, Lydia Ann Slaughter, May 25.

Engagements

MISS ELIZABETH WINTON and Dr. Edwin H. McIlvain, both of Philadelphia.

MISS VIRGINIA HESTON RUGH, daughter of Dr. and Mrs. James Torrence Rugh, of Cynwyd, and Dr. John Craig Clark, of Sweetwater, Tenn.

Marriages

MISS MARTHA DAVIDOW to Dr. Samuel R. Kaufman, both of Wilkes-Barre, May 2.

MRS. IRIS MARINA SCHORSCH to Dr. Jacob C. Rosen, both of Philadelphia, May 28.

MISS DOROTHY SEIPLE, of Harrisburg, to Dr. Bruce N. Wolff, of Gettysburg, June 8.

MISS ELEANOR MUSSINA to Dr. J. Stanley Smith, both of Williamsport, June 8.

MISS DOROTHY M. MOYER to Dr. Nathan W. Rubin, both of Norristown, Apr. 28.

MISS MARGARET DAGER to Dr. George E. McGinnis, both of Norristown, May 4.

Deaths

WILLIAM F. BEYER, Punxsutawney; Jefferson Medical College, 1879; aged 84; died May 24. Dr. Beyer was a member of his county and State medical societies and the A. M. A.

J. C. MERLE DRAKE, Erie; Hahnemann Medical College and Hospital, Chicago, 1880; aged 79; died Apr. 14.

EDWARD CHARLES DREHER, Wilkes-Barre; Hahnemann Medical College and Hospital of Philadelphia, 1893; aged 63; died Mar. 4.

CHARLES ANDREW FIFE, Philadelphia; University of Pennsylvania School of Medicine, 1897; aged 63; died June 15, at the Presbyterian Hospital, after a short illness.

Dr. Fife was born in Circleville, Westmoreland County, and was a graduate of Leland Stanford University. For nearly 40 years he served as pediatricist at the following Philadelphia hospitals: St. Christopher's, Philadelphia General, Germantown, and Children's Hospital of the Mary Drexel Home. He was also consultant to the Burlington County, N. J., and Frankford Hospitals. In 1911, Dr. Fife headed the movement to found the Babies' Hospital of Philadelphia and served

several terms as its president. He was chairman of the Board of Medical Administration at the time of his death.

In 1918 Dr. Fife went overseas as a captain in the Medical Corps, U. S. A., attached to the hospital unit of the Presbyterian Hospital. In France he was transferred to headquarters and later to Evacuation Hospital No. 4. In August, 1918, he was advanced to the rank of major and in October was made chief of the Medical Division of Base Hospital No. 34.

In 1933 he was elected president of the American Pediatric Society and was awarded the honorary degree of Doctor of Science from Dickinson College. He was a Fellow of the American Academy of Pediatrics, the College of Physicians, and the A. M. A., and a member of his county and State medical societies and the Philadelphia Pediatric Society.

He is survived by his widow and a brother.

JAMES CLAIR GLASSER, Blairsville; Medico-Chirurgical College of Philadelphia, 1914; aged 48; died May 18. Dr. Glasser was a member of his county and State medical societies and a Fellow of the A. M. A.

WILLIAM E. HART, Pittsburgh; Johns Hopkins University School of Medicine, Baltimore, 1909; aged 53; died June 12. Dr. Hart was a member of his county and State medical societies and a Fellow of the A. M. A.

ROBERT ELWOOD HEIMBACH, Richlandtown (Bucks County); Cornell University Medical College, 1923; aged 41; died in the United States Veterans Hospital, Castle Point, N. Y., May 25, after several months' illness. Dr. Heimbach had practiced medicine in Richlandtown for the past 4 years. He was a graduate of Princeton University. During the World War he served as an interpreter in the French Army. He was a member of his county and State medical societies and a Fellow of the A. M. A.

WILLIAM DYSON KENNEDY, Lansdowne; Chicago Homeopathic Medical College, 1884; aged 79; died May 21. Dr. Kennedy was born in New London, Chester County, Pa., and practiced at Lansdowne since 1891, remaining active until shortly before his death. He organized the Lansdowne Board of Health and served as its president for 17 years. He is survived by his wife, a daughter, and 2 sons.

WILBUR P. KLAPP, Philadelphia; University of Pennsylvania School of Medicine, 1888; died May 10. Dr. Klapp was a member of his county and State medical societies and a Fellow of the A. M. A.

WILLIAM R. LINCOLN, Cleveland, Ohio; University of Pennsylvania Medical School, 1888; aged 73; died May 24. Dr. Lincoln was formerly of Philadelphia, but for the past 40 years has lived in Cleveland. He had retired from practice. He is survived by 3 daughters, a son, and 2 brothers.

CONNELL EDWARD MURRIN, Scranton; Jefferson Medical College, 1904; aged 60; died June 5. Dr. Murrin was a member of his county and State medical societies and the A. M. A.

EDGAR SAVIDGE, Philadelphia; University of Pennsylvania Medical School, 1896; aged 63; died June 7, at the Graduate Hospital, after an illness of 3 weeks. Dr. Savidge for several years was chief resident physician at the former Polyclinic Hospital, and for 10 years served as head of the Bethany Dispensary. He was a brother of the late Dr. Eugene C. Savidge, author and gynecologist, of New York City. He is survived by 2 sisters.

ROLLEN LEMUEL SHINABERRY, Scranton; Jefferson Medical College, 1910; aged 48; died May 18, of heart disease. Dr. Shinaberry was born in Grover Hill, O. He served his internship at St. Mary's Hospital, Philadelphia, following which he located at South Scranton. He is survived by his wife, a daughter, and a son.

FRANCIS C. SMATHERS, Punxsutawney; Jefferson Medical College, 1905; aged 57; died May 7. Dr. Smathers was a member of his county and State medical societies and a Fellow of the A. M. A.

ROBERT JOHN YOUNG, Snow Shoe; Temple University School of Medicine, Philadelphia, 1929; aged 34; died Apr. 22, of heart disease. Dr. Young was a member of his county and State medical societies and a Fellow of the A. M. A.

Miscellaneous

SENATOR GEORGE WOODWARD, M.D., of Philadelphia, had conferred upon him the degree of LL.D. at the annual commencement at Dickinson College.

THE SIXTY-FOURTH ANNUAL MEETING of the American Public Health Association and meetings of related organizations will be held in Milwaukee, Wis., Oct. 7 to 12, 1935.

DR. JOHN A. KOLMER, of Philadelphia, received the Poor Richard Medal of achievement, awarded by the Poor Richard Club, Apr. 4, in recognition of his work on poliomyelitis vaccine.

DR. AND MRS. J. ANSON SINGER, of East Stroudsburg, recently celebrated their golden wedding anniversary. Dr. William R. Levering, of Stroudsburg, one of the 2 living persons at the wedding ceremony, was one of the guests.

THE MEMBERS of the McKeesport Academy of Medicine presented "Ye Doctors' Minstrels" at the Memorial Theater, McKeesport, May 29. The proceeds of \$2000 have been turned over to the McKeesport Hospital, to be used for repairs.

ACCORDING TO THE *Associated Press* there were 2922 graduates in medicine in German universities last year. No fewer than 8350 obtained doctors' degrees including M.D., Ph.D., D.D., and LL.D. The doctors in medicine predominated.

DR. GEORGE W. GRIER, of Pittsburgh, who succeeded as president of the American Radium Society Dr. William H. Cameron, formerly of Pittsburgh but now connected with the University of New York, will be succeeded in turn by Dr. Zoe Allison Johnston, of Pittsburgh.

AT THE ANNUAL COMMENCEMENT of Temple University, held June 13, there were 100 graduates in the School of Medicine. The honorary degree of doctor of laws was conferred upon Dr. Edward Martin, emeritus professor of surgery at the University of Pennsylvania.

DR. G. A. CLARK, of Wilkes-Barre, on May 18 completed 50 years in the practice of medicine. He was graduated in 1885 from the University of Pennsylvania. From 1918 to 1928, he was city physician, and for the past 10 years has been chairman of the diphtheria prevention committee.

THE ANNUAL MEETING of the American Association for the Study of Goiter was held at Salt Lake City, June 24-26. Dr. Stanley D. Conklin, of Sayre, read a paper on "Myxedema, Spontaneous and Postoperative." Dr. Harold L. Foss of Danville, vice-president of the association, gave a dry clinic.

THE CLASS OF 1918 at Bryn Mawr College, Bryn Mawr, plans to raise \$50,000 to establish a library of chemistry and physics in a new science building at the college as a memorial to the late Dr. Marjorie Sharps Jefferies Wagoner, a member of the class. Dr. Wagoner was the college physician for 12 years. She died June 22, 1934.

THE THIRTY-FOURTH MARY SCOTT NEWBOLD LECTURE of the College of Physicians of Philadelphia was delivered, May 1, by Dr. C. U. Ariens Kappers, director of the Institute for Brain Research at Amsterdam and professor of comparative anatomy, University of Am-

(Continued on page xiv.)

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Karo POWDERED is a spray-dried, refined corn syrup, composed essentially of Dextrins, Maltose and Dextrose in proportions approximately those in Karo Syrup.

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MEDICAL NEWS

(Continued from page 834.)

sterdam. His subject was "Development of the Different Layers of the Cerebral Cortex with Reference to Some Pathologic Cases; the Forebrain of Prehistoric Races."

THE COMMERCE DEPARTMENT, Washington, D. C., states that about 23 persons a day were killed by automobiles during the first 20 weeks of the present year in 86 key cities of the United States. The department's figures showed that an average of 162 persons were killed a week in those cities—a total of 3257 since the first of the year. This was 94 more than for the same period of last year—4 a week more. Philadelphia was fourth on the list.

DR. JOHN P. TURNER (col.), a police surgeon of Philadelphia, was named by the Board of Judges, June 10, to fill the vacancy on the Board of Education to succeed the late Chester N. Farr, Jr. Dr. Turner will serve the unexpired portion of his predecessor's term which ends Nov. 1. The custom in the past has been to reappoint incumbents. The appointments are made by the Board of Judges. Dr. Turner is the first Negro to be appointed on the board.

DR. SOLOMON SOLIS-COHEN, Philadelphia, emeritus professor of clinical medicine, Jefferson Medical College, was the fifth recipient of the Keneseth Israel Alumni Annual Award, awarded May 27. The award cites him as a "contender for pure food and drug legislation," for "introducing filtration into the Philadelphia water system," and promoting immunization against diphtheria and other infectious diseases. He is a member of the Board of Education of Philadelphia.

THE FACT THAT the Dionne quintuplets have lived to reach age one is a great tribute to medical and nursing science. Dr. Allan Dafoe deserves a great deal of credit for the masterly manner in which he has rendered professional service. In recognition, His Royal Highness, the King of Great Britain, has appointed him an officer of the Order of the British Empire. Who shall say that his service does not qualify him for the Empire's tribute?

AT THE ANNUAL COMMENCEMENT of the Hahnemann Medical College of Philadelphia, held June 13, there were 102 graduates. The following honorary degrees were conferred: Dr. Joseph Morgan Reeves, former president of the Board of Prison Inspectors, Philadelphia, doctor of laws; Dr. Ralph Walter Plummer, medical director of Hahnemann Hospital and former captain of the U. S. Navy Medical Corps, doctor of homeopathic medicine; Dr. Harry Sands Weaver, professor of laryngology, rhinology, and otology at Hahnemann, master of arts; Dr. Arthur Whitaker Belting, of McKinley Hospital, Trenton, N. J., and a member of the New Jersey State Board of Medical Examiners, master of arts.

THE AMERICAN CONGRESS OF PHYSICAL THERAPY announces 2 important events during its fourteenth annual session.

1. An instruction class covering the field of physical therapy for September 5, 6, 7, 1935.
2. The fourteenth annual scientific and clinical session for September 9, 10, 11, and 12, 1935.

Both of these events will be held at the Hotel Kansas Citian, Kansas City, Missouri, and every detail has been arranged to give the busy practitioner and technician a full week of intensive study in physical therapy. Dr. Franz Nagelschmidt, formerly of Berlin and now of London, England, will participate in the course and in the convention program.

Preliminary program and circular of information may be secured by addressing the American Congress of Physical Therapy, 30 North Michigan Ave., Chicago, Ill.

(Continued on page xvi.)

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FOUR ATTRACTIVE BUILDINGS

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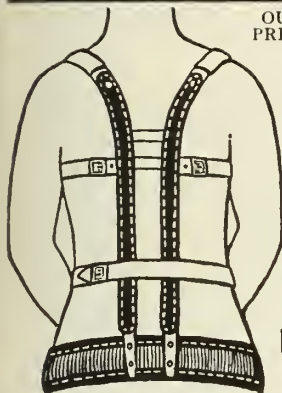
"I am so thankful to be in such good hands with my protection. I think I am one of your oldest clients and this is my first time in court after practicing some fifty years."

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OTHERS ASK UP TO \$50.00

TAYLOR SPINAL BRACEOUR PRICE **\$20.00**

A well padded surgical steel spinal support furnished with apron and perineal straps.

Made to order in 24 hours
Take measurements around iliac crest, umbilicus, distance from sacro lumbar articulation to 7th cervical vertebra prominence.

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SACRO-ILIAC BELT OUR PRICE **\$3.50**

Beautifully made of six inch orthopedic webbing, well reinforced, supplied with perineal straps.

Take measurements around the hips three inches below the iliac crest.

WE ALSO MAKE—

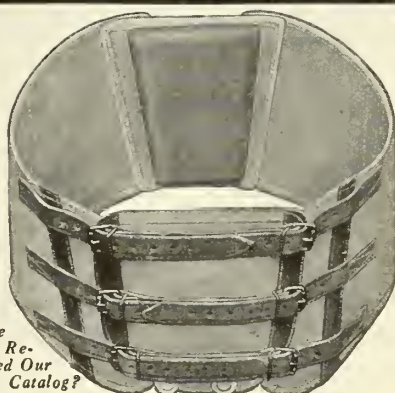
Abdominal Belts, \$3.50— for hernia, obesity, maternity, ptosis, post-operative.

Hood Truss ----- \$ 4.00

Thomas Leg Splints 4.00

Ambulatory Splint... 15.00

Cervical Neck Brace 20.00

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MEDICAL NEWS

(Continued from page xiv.)

THE TRUSTEES OF THE Julius Rosenwald Fund, at the annual meeting held in Chicago May 19, appropriated \$284,000 for the work of the year which began July 1, according to an announcement by the president of the Fund, Edwin R. Embree. The appropriations were made for rural education, medical services, and Negro welfare.

It was announced that the Fund will continue its active interest in health insurance, pay clinics, public health, and other organized services which will make good medical care more available to people of small incomes. "Most striking among recent developments," said Dr. Michael M. Davis, director of the Fund's medical division, "is the growth of plans initiated by physicians, hospitals, or lay bodies, designed to improve the quality or reduce the costs of medical care, or to make it easier for the average family to pay for it. To the office of this Fund alone there has recently come knowledge of 344 plans and projects in all parts of the country. Among these are projects for budgeting hospital bills at a cost of from \$5 to \$10 a year, which have been set under way in over 40 cities during the past 2 years, sponsored by the American Hospital Association and endorsed in principle by the American College of Surgeons and recently by the editor of the *Journal of the American Medical Association*. The general public receives and pays for medical care. Physicians, dentists, nurses, hospitals, and clinics furnish it. The public and the professions have a common interest in maintaining the quality of medical care and in working together on plans whereby the average family may get treatment without ruining its finances or asking for medical charity."

THE LESLIE DANA GOLD MEDAL, awarded annually for outstanding achievements in the prevention of blindness and the conservation of vision, was presented this year at ceremonies in St. Louis on May 18 to Dr. William H. Wilder of Chicago, it has been announced by the National Society for the Prevention of Blindness. Dr. Wilder was selected for this honor by the National Society in coöperation with the St. Louis Society for the Blind.

The medal, offered annually by a director of the St. Louis Society, is a prized mark of recognition of service for the conservation of vision. The medal bears the inscription: "Wise Clinician, Devoted Teacher and Humanitarian."

Dr. Wilder is secretary-treasurer of the American Board of Ophthalmology; vice-president of the Illinois Society for the Prevention of Blindness; professor emeritus of ophthalmology at Rush Medical College, University of Chicago; and a past president of the American Academy of Ophthalmology and Otolaryngology.

THE LATIN-AMERICAN CONGRESS of Physical Therapy, X-ray, and Radium will hold its first annual meeting in Mexico City from Aug. 29 to Sept. 5. The National University of Mexico will act as host to their North American colleagues, and the government will participate in extending hospitality to the delegates.

To facilitate the attendance of American physicians at this Congress, a 19-day convention cruise has been arranged, with steamer, rail, hotel, and sightseeing costs included in one all-expense fee. The convention cruise and all of its advantages will be available not only to the physicians, but to members of their families and their friends.

Five special tours to the Latin American Congress and return have been arranged by the American Express Company who have been asked to direct the Congress Cruise. The first of these, which is expected to prove most popular, is a round-trip by steamer, the S. S. Yucatan having been especially chartered for the purpose of the Congress. It will also be possible for

(Concluded on page xviii.)



This dependable brand of *unsweetened* evaporated milk is now *irradiated*—enriched in Vitamin D by the Steenbock Ultra Violet Ray process. In addition to the many other inherent qualities which make Wilson's Milk so reliable for baby feeding, you can now depend upon it to introduce a rich supply of Vitamin D in a baby's diet automatically. You will be pleased with the way your babies thrive when Wilson's *Irradiated* Evaporated Milk is used in your feeding formulas. All our statements about Wilson's Milk are accepted by the American Medical Association Committee on Foods—and we do not furnish feeding formulas to mothers. WILSON MILK COMPANY, Inc., Box 895, Indianapolis, Ind.

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FOR the seventh year Parke, Davis & Co. is continuing its series of messages to the public, published in the interest of the physician. These advertisements appear in the *Saturday Evening Post*, *Time*, *News-Week*, *Hygeia* and other leading magazines. Our purpose is to bring physician and patient closer together—to strengthen the public's confidence in the most honored of all professions. These messages are suggesting the earnest co-operation of the individual with the physician and are urging a reliance on the physician's knowledge and skill.

THIS "See Your Doctor" campaign is of particular importance at the present time, when so many diverse forces are complicating the status of the medical practitioner.

Since the beginning of the series, many physicians have requested copies of these advertisements and we have presented them from time to time in portfolio form. We have recently printed a new edition under the title "Your Doctor and You." The cover bears a photographic illustration designed to interest your patients. The booklet includes the following messages:

The letter that took him months to write.
The Peaceful Years.
There, dear . . . we needn't worry about scarlet fever now.
Dear Doctor: It was just a year ago today . . .
The Tragedy of a Good Intention.
Things I wish my mother hadn't taught me.
Which is the more dangerous age?
This little girl has three parents.
You don't believe in doctors?
Maybe "So-o-o Big" is too big!
The most dangerous thing about appendicitis.
The man who sentenced himself on circumstantial evidence.
He and his father would have been great pals.
Here's something you don't see in the papers.
This is the lady who was afraid of hospitals.

Most of these you may remember. Yet you may desire to scan through them again and then place this portfolio in your reception room. We shall be glad to send you a copy on request.

PARKE, DAVIS & COMPANY
Detroit, Michigan.

Please send me a copy of "YOUR DOCTOR AND YOU."

Dr. _____

PARKE, DAVIS & CO.  DETROIT, MICH.

MEDICAL NEWS

(Concluded from page xvi.)

physicians to make the round-trip by rail, or to go by steamer and return by rail. Special arrangements have also been made for a return trip by rail, including a stop-over at Kansas City, for those who desire to attend the 14th Annual Session of the American Congress of Physical Therapy on September 9, 10, 11, and 12.

DR. EDWARD A. SCHUMANN of Philadelphia, associate professor of obstetrics at the University of Pennsylvania School of Medicine, has been advanced to professor of obstetrics to fill the vacancy caused by the death of the late Dr. Edmund B. Piper. Dr. Schumann is also surgeon-in-chief, Kensington Hospital for Women; obstetrician and gynecologist, Philadelphia General Hospital, Chestnut Hill and Memorial Hospitals; gynecologist, Frankford Hospital.

THE UNITED STATES Civil Service Commission announces open competitive examinations for the following positions:

Medical officer, \$3800 a year.

Associate medical officer, \$3200 a year.

Assistant medical officer, \$2600 a year.

Vacancies in these positions in the field and in positions requiring similar qualifications will be filled from these examinations, unless it is found in the interest of the service to fill any vacancy by reinstatement, transfer, or promotion. Applications must be on file with the United States Civil Service Commission at Washington, D. C., not later than July 29, 1935. The necessary forms may be obtained from the Secretary, Board of United States Civil Service Examiners, at any first-class post office.

DR. CHARLES LEONARD BROWN of the University of Michigan has been appointed professor and head of the Department of Medicine at Temple University, Philadelphia. He received the degree of bachelor of science from the University of Oklahoma, and in 1921 the degree of doctor of medicine. He was instructor in pathology from 1923 to 1925; teaching fellow in medicine from 1925 to 1927 and instructor in medicine from 1927 to 1928, at the Harvard Medical School. Subsequently he was assistant professor of internal medicine and since 1929 associate professor of internal medicine at the University of Michigan.

Dr. Brown is a member of the American Medical Association, Michigan State Medical Society, Massachusetts Medical Society, American Society for Clinical Investigation, Central Society for Clinical Research, American Association for the Advancement of Science, Fellow American College of Physicians, and a member of the Revision Committee, United States Pharmacopœia, XI.

Dr. Brown's appointment takes effect on Sept. 1, 1935.

LOW COST SPECIAL DIETS FOR ADULTS.—A pamphlet has been prepared under this title by a joint committee of the Dietitians Association of Philadelphia and the Pennsylvania State Dietetic Association which is obtainable from Marion Bell, Ph.D., Temple University, Broad and Montgomery Avenue, Philadelphia, the price of which is 25 cents. The diets contained in this study show how ambulatory adult patients receiving relief or living on a minimum adequate income may be instructed to care for their special diet needs at low cost and with as little deviation from the pattern of the family diet as is necessary to treat the abnormal conditions of the patient. They are suggestive guides for physicians and dietitians in planning diets for ambulatory patients. This material has been formulated primarily for nurses, social workers, and others who come in contact with special diet patients but do not plan diets for them. It is intended to give these persons an appreciation of the points of similarity and difference between the normal or the family's diet and that of the patient. In addition it is an endeavor to demonstrate

how to keep the cost not only low, but also comparable to the cost of the everyday diet of the other members of the family. However, where necessary, dietary régime has taken precedence over the cost.

Book Review

From a reviewer we expect information and advice which will guide us safely and to our profit, warning us of the poor, the mediocre, the commonplace, and inviting our attention to merit.

KNOW THYSELF: A STUDY IN MENTAL QUALITIES. John Potts, M.D., D.C.L. Printed by Dorrance & Company, Inc., Philadelphia.

This book represents the life-long study of a physician who is well qualified to record his observations. It should be in the hands of all young persons of high school and college age in order that they may be stimulated to think seriously about life in its individual application.

The young person who reads any 20 pages of the book will be eager to read it from cover to cover because of the revelation of himself, however impersonal the writing, which will set him straight in his attitude towards his personal future and his relationship to social and professional life.

We heartily recommend this book.

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THE WORK OF THE NATIONAL INSTITUTE OF HEALTH*

GEORGE W. MCCOY, M.D.,† WASHINGTON, D. C.

Your invitation gives me an opportunity to bring to your attention some of the work carried on at the National Institute of Health and to pay a tribute to the men and women who are actually carrying out the investigations. For my own part, the work is largely administrative in nature.

The place of the National Institute of Health in the scheme of government is as follows: It is a field station of the Public Health Service, which in turn is a bureau under the Treasury Department. Why it happens to be in the Treasury Department is a long story. It dates back to the time when the sole function of the Service was the care of the merchant seamen, and the interests of the merchant seamen were looked after by the Treasury Department.

Perhaps one of the greatest advantages of research work in the Public Health Service lies in the fact that the raw material for investigation is placed on the doorstep of the Service.

It may be somewhat of a surprise to you to appreciate how long it takes to reach any worthwhile results in the realm of medical research. It is a very exceptional investigation that can be brought to a successful termination in a year; perhaps the average is 5 years. There are examples of studies that have been going on for 15 years or longer.

PELLAGRA

Pellagra is not an important disease in this part of the country. About 2 years ago one of my former associates, Dr. George A. Wheeler, made a special visit to the hard coal region of Pennsylvania with a view to determining why, under the adverse economic conditions, pellagra did not develop there. His brief investigation showed that this was due to the intelligence with which your authorities who were engaged

in relief work had devised diets that were being provided for people who otherwise would have had no diet at all or at best an extremely meager one.

Pellagra, however, plays an important part in the morbidity and mortality figures of a large part of the country, particularly the southeastern states.

Twenty years ago the subject was in a most chaotic condition. There were 2 prevailing theories of the cause of this disease. One was that it was due to the use of spoiled corn products, or that corn, if not spoiled, was associated in some other way with the production of the disease. The other theory was that it was due to a specific infectious agent.

There is no need to discuss the merits of these theories or the evidence adduced in favor of them, since at that time the problem was handed over to a young doctor who came into the Service from this very part of Pennsylvania—the late Dr. Joseph Goldberger. Dr. Goldberger, whose work stands as a model in research which may be followed profitably by anyone attacking a medical investigation, started out to do 2 direct, simple, well-considered experiments. First, he attempted to produce pellagra in human volunteers. He knew from previous experience that none of the lower animals was likely to yield such valuable results as would the human subjects. Second and simultaneously, he undertook to supplement the diets of pellagra victims by certain well-chosen elements with a view to preventing the disease in groups in which it was particularly prevalent. Both of these experiments, based on the view that some defect in diet was responsible, were successful, and the disease that had baffled investigators for more than a century was in a fair way to solution.

A little later, in order to eliminate the infectious theory, Dr. Goldberger attempted, again

* Read at a General Meeting of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 4, 1934.

† Medical Director, United States Public Health Service, and Director, National Institute of Health.

with volunteers, to produce the disease by the ingestion of secretions and excretions and by direct attempts at inoculations. All of these experiments were unsuccessful so far as producing the disease was concerned. Dr. Goldberger and his associates attempted to define a little more clearly just what were the dietary deficiencies that led to the production of pellagra by feeding experiments on both man and dog. They found the most important antipellagra foods to be: Fresh beef, corned beef, chicken, liver, lean pork, egg yolk, rabbit, salmon, milk, tomato juice, turnip greens, peanut meal, wheat germ, dried yeast, spinach, green peas, kale, collards, cow-peas, and green cabbage. The following foods were found to have relatively little pellagra preventive value: Fat salt pork, butter, corn meal, oatmeal, rutabaga turnips, prunes, apples, rye meal, whole wheat, cod-liver oil, cottonseed oil, lard, navy beans, green beans, carrots, onions, Irish potatoes, sweet potatoes, and lettuce.

Dr. Goldberger and his associates definitely committed themselves to the view that the lack of a vitamin was the cause of pellagra. An interesting side issue of this study may be mentioned to illustrate how little the outcome of any given study can be foreseen. Dog fanciers long had known the disease blacktongue, the etiology of which was just as obscure as that of pellagra. A by-product of Dr. Goldberger's work was the discovery that this disease of dogs is, at least so far as etiology is concerned, identical with pellagra. There have been disputes as to the validity of some of Dr. Goldberger's work on pellagra, but so far as I know there has been no dispute that he put his finger on the cause of blacktongue. With the cause known, prevention and cure became simple.

UNDULANT FEVER

Those of you who were in practice 10 years ago will remember that Malta fever, or undulant fever as it is now more frequently called, was thought of as a disease of the Mediterranean Basin due to the use of goat's milk. This disease furnished a fruitful field of research many years ago for that great European investigator, Dr. David Bruce, later Sir David Bruce. Now practitioners everywhere recognize the possibility of encountering this infection, which is now frequently known as brucellosis, and know that in any obscure, prolonged febrile condition it must be considered.

The recognition of this state of affairs comes largely from the fact that a young woman bacteriologist, now a member of the staff of the National Institute of Health, set before herself the problem of determining what one might con-

sider an almost academic problem, *i. e.*, the relationship between the organism causing undulant fever and that causing contagious abortion in cattle. To Dr. Alice C. Evans' work is due the recognition of the fact that the organisms of these 2 diseases are substantially identical and—what is of much more importance—the fact that infection is widespread in geographical extent and by no means infrequently met with in everyday practice.

The clinicians have identified varying types, and the disease does not always run the characteristic undulating fever that the textbooks have stressed for a century. The existence of the infection is readily recognized by means of blood cultures and a little less certainly by the agglutination test.

When investigations had brought the knowledge of the disease to this state, Dr. H. E. Hassetline, of the Public Health Service, undertook a study primarily of the epidemiologic factors, particularly the sources of infection. His studies showed that approximately one-half of the cases in this country are due to the use of raw milk from herds of cattle contaminated with contagious abortion infection, and the other half to contact with infected animals or their products. The latter group embraces chiefly veterinary surgeons, packing house employees, butchers, and others whose vocations bring them in close contact with domestic animals and their products.

Obviously, in connection with the group of cases infected by milk, prevention is readily accomplished by pasteurization. We have no such ready means of preventing the cases due to contact with animals.

In the southwestern part of the United States there still are a number of cases every year due to infection derived from goats, through their milk or otherwise, but these do not play a large part in making up the sum total of cases for the United States.

TULAREMIA

Tularemia needs only to be mentioned since it is now a very well recognized condition, thanks to the studies of Medical Director Edward Francis. The association with infected rabbits is usually clear, but there are now 20 other recognized sources of human infection in the United States. So far there is nothing to report in the way of therapeutic application that is of proven value.

COMPLICATIONS OF SMALLPOX VACCINATION

We have the utmost confidence in vaccination against smallpox, and this life-saving procedure deserves that confidence in every way, but we are not all aware of the hazard occasionally as-

sociated with this measure. It is customary, especially for health officers, to assert that vaccination is a perfectly safe procedure. This is not wholly true and I always carefully avoid any such statement.

Some years ago it began to be appreciated that tetanus was following vaccination against smallpox, and it soon became apparent that there was a direct association between vaccination and tetanus. We assigned the unravelling of this problem to Dr. Charles Armstrong, who by a series of brilliant laboratory and epidemiologic studies showed that cases of tetanus following vaccination were always directly due to the use of a dressing on the vaccination wound. The widespread recognition of this fact has led to the general abolition of the use of dressings and consequently to the virtual disappearance of tetanus as a complication of vaccination.

Next to engage the attention of Dr. Armstrong was encephalitis following smallpox vaccination, a hazard associated with this prophylactic procedure which often is not recognized even yet. The etiology of postvaccinal encephalitis is still obscure. One man's guess, for it can be hardly more than a guess, is as good as another's. My guess is that it is due to a virus independent of that of ordinary encephalitis and also independent of the virus of vaccinia.

It is a rather rare complication, characteristically having its onset approximately 10 days from the insertion of the vaccine virus, *i. e.*, at the time when the vaccination is at its height. The clinical manifestations vary from fever, headache, vomiting, and stiff neck, which pass off usually without unpleasant sequelae, to the most pronounced nervous system manifestations, which may prove fatal. The most usual source of error in the diagnosis is that these symptoms are attributed to a sporadic occurrence of poliomyelitis. A few years ago I saw, within approximately 2 weeks, 2 cases of postvaccinal encephalitis diagnosed as poliomyelitis. The ailment would readily have been detected had the clinician gone to the trouble of looking for the vaccination process, which was at its height at the time of the onset of the central nervous symptoms.

So far we have been unable to ascertain with certainty the means of prevention. Dr. Armstrong does suggest that it might be advisable to do smallpox vaccination after the usual prophylactic procedure for diphtheria has been taken. In other words, it seems somewhat safer to give the immunity producing mechanism of the individual a little exercise with something that can do no harm but is certain to do some good. Perhaps even more advantageous is the

practice of vaccinating during the first year of life, since it seems, for some unknown reason, that postvaccinal encephalitis is almost unknown during the first 2 years of the child's life.

SPOTTED FEVER AND TYPHUS

Until a few years ago, spotted fever was regarded as a rather unusual condition, almost a medical curiosity, confined to a limited part of the Rocky Mountain region of the United States. It recently has been recognized that a similar or identical condition prevails in many parts of the world. In the eastern part of this country, indeed right here in Pennsylvania, there is what has come to be known as the eastern variety of Rocky Mountain spotted fever.

Our knowledge of this came out of the studies at the National Institute of Health carried on by Dr. Robert E. Dyer and his associates, who were primarily interested in a study of endemic typhus fever. They found that the eruptive conditions which we had all been calling typhus for a number of years really consisted of 2 clinical entities—typhus fever proper and the so-called eastern variety of Rocky Mountain spotted fever.

Spotted fever, so far as we know, is always due to infection from wood ticks, the common eastern dog tick being the usual source of infection in this section. This does not mean that all dog ticks are infectious, but the disease is acquired from them when it is acquired here in the eastern states. The western spotted fever is acquired from a different tick.

The studies on typhus fever have given extraordinarily interesting results. Typhus fever has long been regarded as an exclusively louse-borne disease, and this probably is still true for epidemic typhus; however, the endemic typhus virus of the eastern seaboard and perhaps of the southern states as well—so-called Brill's disease—is now known to exist among rats, and from these rodents it is transmitted to man by the rat flea. It seems quite likely, on the basis of data from various sources, that the infection in rats may lead to the beginning of an epidemic form though when the infection spreads from man to man the louse doubtless plays the prominent rôle.

These 2 diseases, spotted fever and typhus, as they occur in the eastern part of the United States, are readily recognized clinically if the physician is alert. Spotted fever is generally the more severe; it has a death rate of 20 to 25 per cent whereas the death rate from typhus is almost *nil*. Typhus is self-limiting, reaching termination in about 14 days. Spotted fever also is self-limiting but with no such definite duration, running all the way from 10 days to a month. It

is in the distribution of the rash that the chief differences exist. In typhus it is concentrated largely on the body whereas in spotted fever the limbs, especially the wrists and ankles, are primarily involved.

ENCEPHALITIS

During 1933, 2 epidemics of exceptional interest occurred in the United States. They were epidemic encephalitis and amebic dysentery.

In mid-summer of 1933 there occurred in St. Louis about 1000 cases of acute epidemic encephalitis of a type which seemed to differ from any known in preceding epidemics. This, so far as we know, was for the United States a unique experience. This epidemic was carefully studied by Senior Surgeon James P. Leake and his staff. Special attention was given to the etiologic factors.

The disease has an incubation period of from 7 to 15 days. It usually begins with fever, headache, stiff neck, and a slight to moderate cell increase in the spinal fluid. There is not much constancy in clinical manifestations, and there is a considerable variation in clinical types. It is likely to be confused with poliomyelitis and in a few cases with meningitis. Recovery is the rule although there is a mortality of about 15 per cent. In our cases recovery has remained complete after an interval of somewhat less than one year. This disease apparently lacks the distressing sequelae so often seen following other types of encephalitis.

There were interesting epidemiologic features. It attacked all age groups but with a preference for those in the older brackets. No social class was immune nor was any social class particularly involved. In St. Louis there was a preference shown by the disease for suburban populations rather than the strictly urban ones. It was extremely rare that there was more than one case in a family. In other words, evidence of person to person infection was not strong. Here, again, on the therapeutic side we must report no particular treatment. Few therapeutic measures tried seemed to be of value.

AMEBIC DYSENTERY

In the past we have been inclined to regard amebic dysentery as a tropical disease of an endemic nature. Excellent authorities have said that never have we had and never could we have an epidemic of this disease in this country.

The unexpected always happens, and in the summer of 1933, through a peculiar combination of circumstances, an epidemic occurred which led to perhaps 1000 cases and some 40 or 50 deaths. The circumstances that led to this oc-

currence permitted the local contamination of the water supply of certain hotels in Chicago. This outbreak, disastrous as it was, threw light on the epidemiology of the condition by showing that it could be water-borne and that the widely prevalent view that infected food was the main source of infection was not necessarily correct.

It is on the clinical side of this question that there is the most interest. The cases, generally speaking, were typical even though the medical profession was largely unprepared to recognize them, even in the southern part of the United States where the disease is somewhat more prevalent than in the northern. By *typical* is meant that the cases presented diarrhea, blood and mucus in the stools, tenesmus, and if the condition persisted long enough a distinct loss of weight. In spite of these characteristic symptoms a number of cases were attributed to surgical conditions—appendicitis, colitis, malignancy of the bowel, *etc.* However, the chief source of error was in calling the cases nonspecific ulcerative colitis.

If recognized and treated by suitable means, amebic dysentery is readily cured; if treatment is surgical, the results are always unsatisfactory and often disastrous.

Laboratory examinations may give untrustworthy results in amebic dysentery. A positive result is not necessarily an indication that the condition is really due to the ameba, since there may be the carrier condition, in which amebae are practically negative as a cause of the pathologic condition associated with some other clinical entity. On the other hand, there may be a case of amebic dysentery in which the causative organisms are so difficult to find that repeated tests may be necessary to recognize them. It is better for the physician to depend on his clinical judgment and to inaugurate specific treatment rather than to adhere too slavishly to the results of laboratory tests.

UNSUCCESSFUL RESEARCH

Not all of our research work is successful. It is fair to say that notable success is the exception rather than the rule. Following are a few brief examples:

We have been working on cancer for about 6 years now, attacking the problems as vigorously and intelligently as we know how, and yet so far as practical application is concerned, the results are substantially *nil*. The studies have followed 2 general lines:

1. The attempt to discover the factors governing the multiplication of cells. It is hoped that when these are definitely ascertained they may afford a clue to means of therapeutic attack on

the subject, which would include that goal of so many hopes—chemotherapy.

2. The other line of attack has been the experimental attempt, in animals, to discover whether there is an infectious element in the etiology of cancer. Here the results are inconclusive, one of the great difficulties being to determine just what constitutes cancer in animals, a subject on which there is a wide divergence of opinion.

Among our other unsuccessful efforts in the field of research have been the various investigations, laboratory and epidemiologic, in connection with influenza and poliomyelitis. Both of these have claimed large amounts of time, energy, and money; but so far as anything helpful to the physician or health officer is concerned, the results are substantially *nil*.

BIOLOGIC PRODUCTS

It is important to explain the relationship of the National Institute of Health to that group of preparations usually known as biologic products—serums, antitoxins, vaccines, and analogous preparations. Biologic products may be divided into three classes:

1. Those for which standard units are employed, the best examples being antitoxins for diphtheria and tetanus.

2. Those for which no definite units have been established but for which control preparations are issued to the manufacturer for testing his material in order that it may have the required potency, which usually is not to be measured in such a definite way as to permit the designation in units. The best examples here are pneumococcus and meningitis serums, although the former appear to be coming out of this class and moving into the preceding class.

3. In addition to these reasonably well-standardized preparations is the whole group of vaccines, bacteriophages, and preparations of this general nature for which there is more or less (usually less) satisfactory evidence of value and for which we recommend license with the feeling that the physician must determine for himself whether the material is of value.

Under the administrative organization of the government the details of carrying out the law under which these preparations are produced rest with the National Institute of Health. There is a considerable degree of misunderstanding as to just what the license provided by law means. Often it is erroneously taken to mean that the government considers the preparation to be of value in the treatment and prevention of disease. Actually it means only that the material has been prepared by a commercial manufacturer in a

manner that should enable it to render whatever valuable qualities may be inherent in it and that it is safe under normal conditions of use. Many of our friends find it difficult to understand why we recommend licensing of preparations of uncertain value. The reason for this comes from the difficulty in determining just what preparations are of value. It often requires years of general experience on the part of the profession before the worth of a preparation can be reliably determined. The government is in no position to carry on such large-scale clinical tests as would be necessary to determine the worth or worthlessness of many of the preparations for which licenses are sought and for which licenses have been granted. Practically speaking, ordinarily it is desirable only to determine that there is a presumption that the material may be of value, this being based often on the clinical use of the particular preparation by those who are interested in its development.

We consider that the profession as a whole would not tolerate the delay that would be incurred if it became our policy to withhold license until the worth of a preparation had been very definitely established. As an example, let me point out that it took years and years of clinical experience to settle even approximately the place of antipneumococcus serum in the physician's armamentarium. That example could be multiplied a number of times.

Whenever it seems especially important, we do endeavor to make some determinations ourselves. For example, we do not issue a license for any tuberculosis or cancer cures. It so happens that those who bring forward these cures practically always base their claims on the results of animal tests. These are readily duplicated, and there is scarcely a year passes without our having under test, in animals, an alleged cure for tuberculosis and one for cancer. At the present time the preparations for which these claims have been made have disappointed not only us but those who brought them forward.

To illustrate the trouble ^{to} which we are willing to go in making a therapeutic appraisal when it seems practical, there is the example of scarlet fever antitoxin. There was and still is more or less controversy as to the exact field of usefulness of this preparation. The problem was approached in the following manner: We contacted a hospital which was not using the antitoxin in the treatment of patients and proposed to the chief of the pediatrics staff that he cooperate with us in a controlled study, which was carried out by Dr. Milton V. Veldee. Alternate cases of scarlet fever were treated with the specific antitoxic serum, the other cases being re-

garded as controls. Both groups were handled by the hospital in precisely the same manner save that the one group was given the specific serum while the other was not. The results were quite satisfactory but rather surprising. We had expected the antitoxin to influence markedly the acute toxic manifestations of the disease. It had not particularly occurred to us that it might have any influence beyond this. When the series of about 200 cases (half of which were specifically

treated and half of which were controls) was analyzed, it was found that the serum had relatively little influence on the acute toxic manifestations of the disease but that it did have a rather definite influence in preventing the complications, such as swollen glands, otitis media, mastoid infections, and the like.

Unfortunately, it is not often practical to undertake tests of this sort.

Twenty-fifth and E Streets, N. W.

THE PREOPERATIVE STUDY OF THE CATARACT PATIENT*

HUNTER H. TURNER, M.D., PITTSBURGH

In analyzing the literature having to do with the extraction of senile cataract, one is impressed by the great number of contributions bearing upon the induction of adequate anesthesia, the choice of surgical procedure, and the treatment of postoperative complications. There is a definite paucity of articles stressing the very great importance of a comprehensive preoperative study of the patient—the party most vitally interested in the successful outcome of the impending surgery.

Though exact surgical technic is unquestionably of very great importance, a knowledge of the patient's condition *preoperatively* and the elimination of elements which might make trouble during the healing period are even more important from the viewpoint of ultimate result.

Even in the hands of the most skillful and experienced ophthalmic surgeon, the extraction of senile cataract fairly bristles with possibilities of woe to both operator and patient, at operation as well as during the postoperative period. It demands the exercise of most meticulous judgment and perfection of surgical technic.

Unlike most other surgical procedures, there is, as a rule, only one opportunity to secure a perfect result. A perfect extraction does not, unfortunately, always mean a perfect final result. We have all seen cases in which the immediate surgical result was above criticism, every detail of the operation carried out perfectly without any of the possible mishaps, and the patient returned to bed in apparently good condition, but in which, nevertheless, owing to unfortunate postoperative complications, the eye was eventually lost or useless as an organ of vision.

It is astonishing how much trauma an eye can sustain without serious reaction in the absence

of complicating elements and, contrariwise, how slight a trauma makes it vulnerable to a preëxisting focus.

A much greater number of poor results occur because of an inadequate preoperative study of the patient than through faulty surgery *per se*.

The confidence of the patient, that intangible but very important element, is generally won or lost at the time of the first examination. Though many of these patients know beforehand the cause of their blindness and realize that surgery will be necessary for its correction, it is best not to act on this hypothesis. The exercise of tact is advisable in explaining conditions to the patient. Probably all of us have heard criticism of able surgeons, because of the brusque manner in which this information was given such patients at the time of first examination.

Sidney Stephenson said that the greatest factor in the success of a medical man, and especially of an ophthalmic surgeon, was human sympathy. The elderly patients who require this service are certainly deserving of sympathy. They should be made to feel that the surgeon is *en rapport*, is fully competent, and may be depended upon to do everything possible to secure a continuance of useful vision or to restore vision. My sympathy is all with the patient who goes to the operating room without the greatest confidence in the surgeon he has chosen, or with the feeling that the surgeon is largely an automaton without capacity for human sympathy or an understanding of human limitations. Lack of coöperation on the part of the patient at the time of operation is preventable and is usually the surgeon's fault. It certainly indicates that there is lacking between surgeon and patient that perfect understanding and confidence which makes for an uneventful operation and a smooth convalescence.

The cataract being uncomplicated and surgery

* Read before the Section on Eye, Ear, Nose, and Throat Diseases of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 2, 1934.

agreed upon, the following questions immediately present themselves: Does the general condition of this patient justify surgery? Is there some general condition present which might contraindicate surgery? To answer these questions the patient should be referred to a competent internist for study. Frequently the general physical condition of the patient must be improved before surgery is advisable; he may have an unsuspected sugar dysfunction, which should be brought under control; he may have such a poor heart that he is a bad risk; he may have an unsuspected malignancy or pulmonary pathologic involvement. It is preferable, if possible, to have this examination made by a member of the medical staff of the hospital in which the extraction is to be performed. He can then keep in daily touch with the patient during the immediate postoperative period.

A rather unusual occurrence a few years ago impressed me freshly with the importance of thoroughness in this general preoperative examination. The patient had been operated upon for cataract 10 days before the tragic death of her surgeon. She was referred to my service. Upon examination it was found that, in spite of a perfectly performed extraction, she had developed a typical interstitial keratitis syphilitica. The patient, age 58, was put on intensive antisyphilitic treatment at once, but in spite of all that could be done the eye was lost as an organ of vision. The other eye, which fortunately did not become involved, was operated upon after the conclusion of the antisyphilitic treatment and the patient went through a perfectly normal convalescence, giving her an acuity of 20/20. This woman had the typical facies of congenital syphilis, which had either been overlooked or deemed of no importance because of her age.

There being no contraindication to surgery from a general viewpoint, my practice has been to have the teeth, if any remain, carefully examined, including roentgenograms. If any apical abscesses, devitalized teeth, or pyorrhea are demonstrable, the affected teeth should be extracted, also any root fragments, and a sufficient time permitted for the gums to heal entirely before the cataract extraction is made. In my experience years ago, several instances occurred in which a troublesome postoperative reaction promptly disappeared following the extraction of an infected tooth. The frequency with which dental infections may produce secondary ocular inflammations is commonly recognized when there is no antecedent trauma. How much greater is the danger of such a relationship when the resistance of the ocular structures has been low-

ered by surgery—which in a very real sense is trauma! This is a very common industrial problem and costs the insurance companies tremendous sums annually. An unjustifiable risk is assumed in doing a cataract extraction on a patient with demonstrable dental infection. Many ophthalmic surgeons do not consider this a real danger and pay very little if any attention to dental infections. Some operators make it entirely optional with the patient as to whether or not he shall have dental foci removed, explaining the risk assumed. This, of course, leaves an excuse for the operator in case of postoperative reaction, but this is not fair to either the patient or the operator. The patient's memory is apt to be notably short in case of postoperative trouble in spite of any understanding. He fails to obtain the desired result, and the operator is given an undesirable reputation by the patient's friends. Good reputations are built upon good results, and the surgeon, for his own sake as well as that of the patient, should insist upon the removal, if possible, of any and every focus which might imperil the desired result. Diseased teeth in elderly patients are usually quite loose, and in any event their removal produces but little reaction.

The eradication of foci about the nose or throat is a much more difficult problem. In elderly persons surgery in this area is to be avoided if possible and, in fact, is seldom indicated in these cases. Local treatments may, however, cause a chronic or subacute infective process to become much less threatening. Chronic suppurating sinuses should be drained, especially if they are homolateral to the eye to be operated upon. In these cases, even after drainage, such a sinus is lined with a pyogenic mucoperiosteum, which cannot be removed or even adequately treated locally and which constitutes a very real threat to the successful issue of the prospective surgery. Under such circumstances, in addition to local nasal treatments and the oral administration of iodides usually combined with mercury, the resistance of the patient should be increased before operation by several injections of foreign protein, given at intervals of 3 or 4 days. Formerly we used the stock diphtheria antitoxin for this purpose. Within the past few years, however, this is marketed in such a highly concentrated form and is so relatively expensive that we have been using diphtheria antitoxin (bovine), which is retailed in 30 c.c. vials. Ten c.c. are administered subcutaneously for 3 consecutive doses. There have been no unfavorable postoperative reactions under such circumstances, even in cases in which the nasal infection was rather wide-

spread. A culture of the nose or throat is taken only if deemed necessary by the nose and throat consultant. One patient, treated years ago, turned out to be a diphtheria carrier. The diphtheria antitoxin is not used in these cases because of this possible contingency, but purely as a matter of securing the serum, upon which we depend for protection, in a convenient and dependable form.

Although it is admittedly impossible to render the conjunctival sac absolutely sterile, and though many surgeons do not, for one reason or another, check the conjunctival secretion preoperatively if the tissues are negative to gross inspection, the certainty that the conjunctival sac is free from pathogenic organisms adds considerably to the confidence with which a globe may be opened. Those who depend upon gross appearance entirely must be infallible in the selection of cases. It is impossible to determine by inspection alone whether or not a field is contaminated. A smooth, glistening conjunctiva, free from congestion, may harbor virulent organisms; on the other hand, a roughened and congested conjunctiva may show only growth of harmless saprophytes. Dr. Edward B. Heckel has a saying which he uses on frequent occasions, "Why guess, when it is possible to know?" It certainly applies in this case. Most cataract work is performed in a modern, well-equipped hospital, and the taking of cultures as a routine procedure involves such a slight outlay of time and effort that to expose the patient to such an unnecessary risk is not justifiable. As to the method to be employed in securing culture material, the smear is unreliable. The platinum loop and dry swab are generally considered less reliable than cultures taken by the liquid method. By this method a few drops of normal saline solution or water of condensation from a blood-agar slant are placed in the conjunctival sac with a nipple pipette or sterile dropper. By alternate aspiration and expulsion the surface may be well irrigated and the washings thus obtained planted in the culture medium chosen. We are rather partial to Löffler's blood-agar slants or plates. Many others prefer for this purpose a mixture freshly prepared of horse serum (1 pt.) and bouillon (2 pts.). Should incubation show the presence of pathogenic organisms, conjunctival irrigation with an efficient bactericidal solution should be instituted. For this purpose a 1:3000 solution of mercuric cyanide is used freely every 3 or 4 hours. The solution is stainless, clear, nonirritating, and very effective if freshly prepared. Repeated cultures should be taken until the sac can be shown to be free of pathogenic organisms before the extraction is performed.

The presence of a chronic suppurative dacryocystitis contraindicates immediate extraction. The diseased sac and canaliculae must be excised and the conjunctiva treated according to indications and shown to be free from pathogenic organisms before any surgery of the globe is made. An attempt to isolate the diseased sac by occlusion of the puncta is not good surgical practice. At best the relative sterility of the conjunctiva is always in question and there is an active focus in very close proximity to the traumatized eye—a very undesirable situation.

Since Verhoeff and LeMoine presented their paper on "Endophthalmitis Phaco-anaphylactica" before the International Congress of Ophthalmology at Washington, D. C., in 1922, there has been considerable interest shown in this subject. In an attempt to explain a type of cyclitis which occasionally follows cataract extraction, they applied to human beings for the first time facts which had been developed in animal experimentation by Uhlenhuth, Krauss, Doerr, Sohma, Haendel, and others. Though many postoperative reactions are undoubtedly produced by focal infections, others apparently are due to a reaction induced by lens substance and do not subside until all residual cortex has been absorbed. The essayists explained this on the hypothesis of sensitivity, congenital or acquired, to lens protein. To prevent this type of reaction, which is sometimes quite destructive, they recommended that each patient be tested preoperatively for sensitivity to lens protein and, if found to be sensitive, that he be desensitized before operation. The technic employed is identical with that employed in similar tests for sensitivity to other proteins. The application is a perfectly logical one, although the general attitude of ophthalmologists seems to be one of watchful waiting. There seems to be a fear that, in absence of sufficiently definite checks on adequate desensitization, the sensitivity of the patient may be intensified rather than corrected and the very danger against which we endeavor to protect the patient made very real. Dr. Arnold Knapp, in a paper presented before this body at the Johnstown meeting, voiced a very definite impression that 2 instances of rather severe postoperative cyclitis, occurring in his practice, were not unrelated to the fact that the patients had previously undergone prolonged treatment (*a la* Davis) for relief from cataract without surgery. Judging from the reluctance of the ophthalmic surgeons to employ the tests recommended in their cataract cases, the value of this work has not yet been conclusively demonstrated. With the publication of further experimental work along this line and more exact data as to dosage and posi-

tive desensitization, it may later become a very valuable check against this particular type of postoperative reaction.

Dr. Carl Hobart, of St. Louis, in the August number of the *Archives of Ophthalmology*, 1933, published an article, "Protein Extract of Vitreous Humor," in which he claims to have demonstrated that the destructive cyclitis which sometimes follows vitreous loss is produced by sensitization to this particular protein. He advises testing prospective cataract patients for sensitization to this element. His idea parallels that of Verhoeff and LeMoine. The idea as a whole, as stated previously, remains *sub judice*.

The coagulation and bleeding time should be taken. If these do not conform to good surgical practice, the operation should be postponed until this element can be corrected or the risk minimized.

It is advisable to avoid even the suggestion of haste, which has a tendency to put the patient on a tension. He should be given an opportunity, through repeated manipulations, to become accustomed to the surgeon's touch about his eye.

These patients should be admitted to the hospital at least 2 days before operation in order that they may become fairly well acquainted with the environment. This definitely diminishes the likelihood of postoperative loss of orientation.

Most elderly persons have some favorite laxative which they have found to suit their particular needs, and which in most instances they have been using for years. It is good practice to continue as nearly as possible the normal routine in this regard, although an enema of soapsuds and glycerin is usually ordered the night before operation.

The choice of preoperative sedative and its dosage depends largely upon the physical and emotional make-up of the patient and is usually decided upon after a conference with the internist who has made the general study. The aim is to secure a good night's rest during the 2 nights preceding operation and to give just enough sedative on the day of operation to cause the patient to be complacent, without impairing his capacity for full coöperation during the extraction. For this purpose sodium amytal in 3 grain doses, luminal in 1½ grain doses, or sodium bromide grains xxx with chloral hydrate grains v may be given. The first choice is sodium amytal, which is administered 2 nights before operation. If the effect be satisfactory, it is repeated the night before operation, again the morning of operation, and finally one hour before operation. If the effect the first night is not satisfactory, change to one of the other drugs. Most operators

have favorite sedatives, which in their experience have been most satisfactory. The sedative and dosage should be chosen which seems best to meet the needs of the individual patient. Some operators employ preoperative sedatives in such massive doses as to render impossible any coöperation on the part of the patient. These operators lose more than they gain. Years ago we employed morphine sulphate preoperatively, but discontinued its use entirely because of the occasional incidence of idiosyncrasy and vomiting, with their disastrous results.

CONCLUSION

No reputable ophthalmic surgeon of experience would guarantee the result of a cataract extraction even under the best of circumstances. He knows that, in spite of the utmost care, mishaps may occur at operation or postoperative reactions develop which he is sometimes at a loss to explain satisfactorily. A careful preoperative study of the patient is the best possible insurance against postoperative trouble.

These patients trust us to preserve for them a sense which is almost as precious as life itself. Though impossible to eliminate entirely the element of uncertainty, in justification of this trust we should make certain that, so far as our knowledge of to-day makes possible, every precaution has been taken to insure a good result.

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ABSTRACT OF DISCUSSION

DR. EDWARD B. HECKEL (Pittsburgh): There is a class of cases in which the use of silver nitrate 1:1000, one-half grain to 1 ounce, will cure the infection in several days, if the conjunctival sac and lens are quite sterile.

The psychic phenomena should be carefully studied. We should take these patients into our confidence and explain what is expected of them and what we expect to do, so they do not enter the operating room with fear and trembling. We must show them that it is only once in a lifetime, or at the utmost twice, that they will undergo cataract operation. Therefore, it is desirable to obtain their confidence as much as possible. The patient should be in the hospital for 48 to 72 hours before operative procedure, so that he may become accustomed to his surroundings.

HARVEY E. THORPE (Pittsburgh): The elimination of potential sources of infection, both endogenous and exogenous, is especially important in preventing complications. It is of paramount importance that a smear be examined from the conjunctival sac for pus cells and pathogenic bacteria. Irrigation of both lacrimal passages to establish patency should not be omitted. Physical examination, blood Wassermann test, and urinalysis should be done.

In the preparation of patients, in addition to the above procedures, 20 per cent argyrol is instilled 3 times daily into the conjunctival sac for 2 days preceding operation.

Coöperation of the patient during operation is an important factor. This can be aided by the use of hypnotics to insure a good night's rest. Allonal is given the night before and an hour before operation in the morning.

The psychic phase is important. The operation is an ordeal for the patient. He is apprehensive, would like to coöperate, but does not know what is expected of him during operation. He does not know where to fix his eyes, whether to look up or down, keep them at rest or move them. It is helpful to explain to the patient, before he is taken to the operating room and also while he is being cocainized, that he lie entirely relaxed with his hands at his sides, and not expect pain except from the first injection of novocain for akinesia. Have him look at the ceiling light (150 watt) in the operating

room. The operating table should be placed so that a line dropped from the overhead light would strike the patient's pubis. In this way there is proper inclination of the eyes for corneal incision, delivery of lens, and toilet of wound and at the same time the patient is kept from rolling his eyes.

Preliminary iridectomy lessens the amount of post-operative reaction.

DR. TURNER (in closing): The sole purpose in presenting this paper is to stress the importance of a preoperative study of the patient. The patient is only too glad to coöperate if he understands that, by so doing, the final result is made more certain. A routine examination in all these cases is of vital importance; nothing should be taken for granted.

EROSION OF THE BONE IN THE NEIGHBORHOOD OF THE AUDITORY CANAL DUE TO NEOPLASMS*†

WILBUR P. BAILEY, M.D., AND NICHOLAS GOTTEN, M.D., PHILADELPHIA

Lesions of the brain around the cerebellopontine angle are quite common and often present difficult problems for diagnosis, thereby making treatment more hazardous and delayed. The establishment of an early diagnosis requires the close coöperation of the neurologist, the roentgenologist, and the surgeon. With the improvement in technic during the last few years for revealing various parts of the skull, the roentgen ray has become an invaluable aid. This has proven particularly true more recently with regard to the petrous portion of the temporal bone, that part of the skull which is embraced by the cerebellopontine angle.

The most frequent pathologic changes at the cerebellopontine angle are the result of neoplasms. The neuromas and gliomas are the most frequent types, although meningiomas and carcinomas occur in this area. Other lesions frequently found are those due to multiple sclerosis, syphilitic adhesive arachnoiditis, tuberculosis, and cystic adhesions. The roentgen-ray changes in these pathologic processes are chiefly confined to the perineural fibroblastomas and the meningiomas. Other lesions seldom produce erosions of the petrous portions of the temporal bones.

The bone changes which can be detected by roentgen-ray examination vary according to the type of neoplasm. A neuroma produces pressure erosion around the internal auditory canal, whereas a meningioma directly invades the bone and sets up a reactive hyperostosis. Because of

the location of the petrous portions of the temporal bones and because of the thickness of the surrounding bony structures, radiographic examination of the region is not easy. Various technics have been described for this purpose, notably by Schuller, Stenver, and Mayer, some of which were rather complicated. Some of

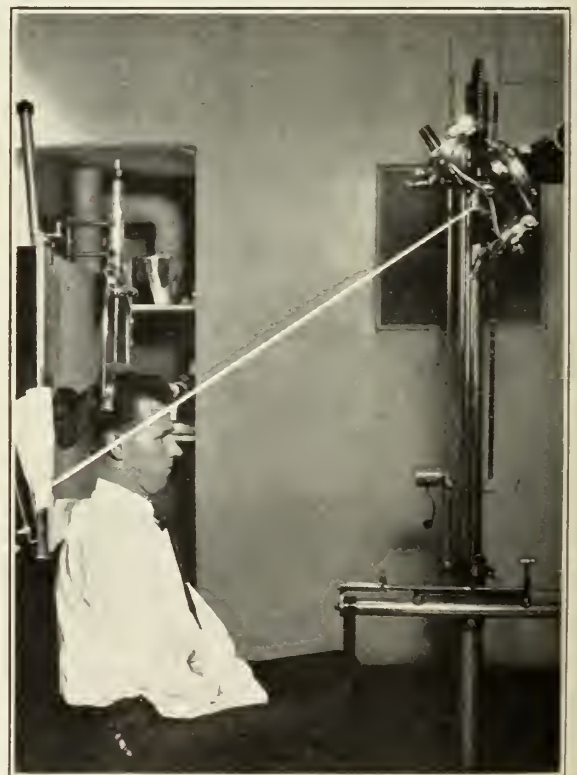


FIG. 1.—Direction of the central ray in the occipital projection used to show the petrous ridges in profile.

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† From the Departments of Radiology and Neurosurgery of Temple University School of Medicine.



FIG. 2a.—Expansion of the right internal auditory canal with erosion by the tumor of the surrounding bone including the petrous ridge. This figure shows the usual postero-anterior projection.



FIG. 2b.—Same case as Fig. 2a. The special occipital projection has been used and the petrous ridges and foramen magnum can clearly be seen.

these methods were not only disappointing, but led to erroneous conclusions in some cases.

In 1926 improved technic for the demonstration of erosion in the region of the petrous portion of the temporal bones was devised by William E. Chamberlain, Temple University Hospital, and described by E. B. Towne. Because of its simplicity this technic is admirably adapted to routine use in all skull examinations, and it is the purpose of this paper to discuss the results which have been obtained by the use of this method at Temple University Hospital.

TECHNIC

Instead of using the usual dorsal projections of the skull, Chamberlain uses a posterior projection in which the petrous bones are shown in profile. The patient's head is flexed slightly forward while the chin is drawn inward. The center of the film is placed opposite the foramen magnum, and the central ray is directed at the center of the film through the midline of the frontal region at a point about 3 inches above the level of the eyebrows. The central ray thus follows a path which starts at the hair line and progresses through the skull at the level of the external auditory canals. Both of these structures therefore serve as convenient points of reference in getting the patient into the correct position to make roentgenograms. This technic is particularly suitable for routine examinations of the skull, which can be made to include this special angle without adding to the expense of the complete skull examination by merely sub-

stituting this special occipital projection for the usual dorsal projection.

This survey consists of 21 cases taken from the neurologic and neurosurgical divisions of Temple University Medical School, in each of which a lesion at the cerebellopontine angle was suspected. A final diagnosis of acoustic neuroma was made in 9 of the cases. There were 2 cases of glioma of the pons and 1 hemangioblastoma, 1 meningioma, and 1 teratoma. Of these 14 cases of tumor, the diagnosis was established in 13 cases by operation or necropsy. Of the remaining cases, 2 were diagnosed as tuberculoma of the pons, 1 as multiple sclerosis, and 3 as lesions of the pons although the etiology could not be definitely established.

Of the 9 cases of acoustic neuroma, 8 showed definite erosion of the petrous pyramid on the involved side by roentgen-ray examination, and the diagnosis was made from the bony changes. The characteristic picture in the roentgenograms presented by neuromas consists of an enlargement of the porus acousticus internus with or without damage to the petrous apex. Damage may also occur to the pyramidal ridge without any change of the porus acousticus. In 1 case the erosion of the petrous ridges was bilateral, and without clinical data the side of the neuroma could not have been determined.

There was 1 case in which a teratoma arising apparently from the clivus had eroded away the tips of both petrous pyramids. In this case a meningioma was suspected prior to operation because of marked hyperostosis, particularly in the dorsum sellae. Hyperostosis is especially char-

acteristic of the reaction produced in bone by invading meningioma cells, and this type of tumor must be suspected at once in the presence of a hyperostotic lesion near the cerebellopontine angle.

Neither of the 2 cases of glioma of the pons showed any bone changes upon roentgen-ray examination. This lack of bone change is easily explained by the rapidity of the growth of the tumor and because of the infiltrating nature of these lesions. Likewise, due to this invasive character they seldom block the aqueduct, and therefore are less prone to cause changes in intracranial pressure.

Of the nonneoplastic diseases that were reviewed, none showed any erosion of the petrous pyramids or acoustic meatus, which was as expected, inasmuch as these lesions lie either in the substance of the pons or cerebellum, or involve the meninges by a sclerosing process. It is true, of course, that there may be signs of an increase in intracranial pressure, as evidenced by pressure markings of the skull, but the petrous ridges are never involved.

From these findings, it would seem that in all lesions in which the cerebellopontine angle is suspected of being involved in a pathologic process, films should be taken which show the petrous ridges in profile. For this view, the technic described is the most favorable.

DISCUSSION

F. Henschen in 1912 was the first to demonstrate erosion of the porus acousticus internus by acoustic neuroma. He later believed that he had demonstrated the erosion in roentgenograms. However, Harvey Cushing pointed out that what was shown in a lateral view of the skull was in reality the external and not the internal meatus. Cushing believed at the time that the roentgen-ray results were often disappointing and likely to be confusing until the technic was improved. In Cushing's series of 20 cases there were only 4 that showed any definite changes in the petrous pyramids. C. List in a later report of 39 cases found erosion in 23 or 59 per cent of the neuroma cases. H. K. Pancoast in a discussion of angle tumors and their visualization arrived at the conclusion that the occipital projection was the most favorable for demonstrating the petrous ridges before Towne's description of the Chamberlain technic had been called to his attention. In 117 normal occipital roentgenograms examined by Pancoast, 95 per cent showed a petrous ridge which was fairly symmetrical on both sides. In 4 of the cases the regular postero-anterior view showed irregularities not present in the



FIG. 3.—Erosion of the left petrous apex. Special occipital projection.

occipital view. On this account Pancoast considers only the occipital view as reliable for diagnosis.

The cause of the erosion of the petrous pyramid by the acoustic neuroma is probably the result of the pulsation of the tumor mass or vascular sinuses, which lie adjacent to the bone. The erosion process is somewhat similar to the erosions of bone which are caused by aneurysms.

Meningiomas are quite rare in the posterior fossa. In List's report of 175 cases of tumor of the posterior fossa from Peter Bent Brigham Hospital, they occurred in only 15 instances. The characteristic bony change that occurs with the meningiomas is hyperostosis. These tumors usually have their point of origin from the arachnoidal cell nests around the dural sinuses and have a definite point of origin in the dura. Their microscopic structure is meningo-epitheliomatous or sarcoma-like, and it is probably for this reason that the invading cells set up a reactive hyperostosis.

It is obviously possible for other malignant lesions to invade the area of the petrous pyramids and to cause an atypical erosion. In one of our cases the tips of both petrous pyramids were eroded by a tumor which proved to be a teratoma originating in the clivus. Carcinomas and sarcomas of this region usually occur by direct extension from the nasopharynx and may cause an atypical erosion.

The gliomas of the pons, though quite frequent, occurred in our series in only 2 instances.

In List's group of 175 cases they occurred 25 times.

Other nonneoplastic diseases that occur around the angle are those due to multiple sclerosis and to inflammatory conditions such as syphilis, tuberculosis, and adhesive serofibrous cysts. In none of our cases and in none of those reviewed in the literature has there been found any report of erosion of the petrous pyramids in such processes.

SUMMARY

The roentgen-ray technic devised by Chamberlain and described by Towne for the demonstration of neoplasms in the region of the petrous pyramids and internal auditory canals is described. This technic has proved more valuable in our experience than former methods. In the past 3 years a number of cases of verified neoplasms in the region of the cerebellopontine angle have been observed. Eight of the 9 cases of acoustic neuroma showed erosion of the petrous pyramids. Lesions such as gliomas of the pons, multiple sclerosis, and tuberculomas did not show erosion. A suitable technic for routine examination of the skull can be made to include this special angle without additional films by substituting the special occipital projection for the usual dorsal projection.

(We wish to thank Drs. William E. Chamberlain, Temple Fay, and Nathan Winkelman for the use of their cases, which made this paper possible.)

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ABSTRACT OF DISCUSSION

TEMPLE FAY (Philadelphia): The authors have made clear and simple a diagnostic method for a type of tumor that is unrecognized in the ordinary clinical sense. Invariably these tumors are referred to the specialist because the patient develops symptoms of blindness or vomiting, or some real incapacitating condition. The tests described make it possible to detect the condition clearly years before the final onset of terminal symptoms. If those dealing with such cases clinically would ask the radiologist to give the patient a simple occipital projection by the roentgenographic method described, known as the Chamberlain-Towne ray, a diagnosis would be made much earlier. The fact that 43 per cent of these cases were acoustic neuromas is significant. The first symptom usually complained of is that the patient does not hear well when using the telephone or when lying in bed with the good ear down. There is no vomiting or disturbance of vision or headache in the early stages. Later the patient may develop a disturbance in motion if the cerebellopontine angle is affected. Prior to this excellent work in roentgen ray we had to depend upon the Barany test. If the patient shows incoördination in the finger-to-nose test and has developed vestibular symptoms, the clinician should order this type of roentgen-ray examination, which is diagnostic.

The earlier these cases come to operation before choking of the disk or involvement of the facial nerve or other structures, the better is the opportunity for operative relief. If the tumor is not too large and has not invaded the posterior fossa to too great a degree, it is often amenable to surgical measures which are highly satisfactory.

The authors gave the findings of a bilateral tumor in 1 case. The patient had 2 tumors, 1 in each acoustic angle, which proved to be the von Recklinghausen type of neuroma. In another case in which the roentgen ray showed erosion of the petron, the diagnosis was missed because I was convinced that a pituitary lesion existed, with secondary involvement of the angle. An exploration of the pituitary body was made, and only a dilated third ventricle was found. I was surprised that a tumor was not encountered. Seven months later the patient died, showing a typical cerebellopontine angle tumor. The roentgen ray was the only sign in this case pointing to a tumor. The pituitary picture clinically overshadowed all other symptoms.

In another case the tumor producing frontal lobe symptoms also showed erosion of the petrous bone. There was roentgen-ray evidence of a frontal lobe tumor with changes in the cribriform plate. Exploration in this case proved that both findings were correct. The tumor extended from beneath the frontal lobe to the petron and was about the size of an ordinary lemon. Here again the question of surgical approach was a matter of importance. A frontal approach was made whereas more of the mass might have been disclosed by a lateral approach, which would have included the petron. Thus we have assisted in confirming the importance of roentgen-ray study. The roentgen ray is capable of diagnosing 85 per cent of these tumors. They can be diagnosed and localized early if we will but seek for the confirmation by the roentgen ray. After the patients have reached the stage of blindness, the sight



FIG. 4.—Erosion of the right petrous ridge and expansion of the right internal auditory canal. This figure illustrates a common mistake. The central ray was too nearly horizontal therefore the shadow of the orbits interfere. The foramen magnum cannot be seen.

cannot be restored even though intracranial trouble is discovered.

EUGENE P. PENDERGRASS (Philadelphia): Lesions around the cerebellopontine angle are common but difficult to diagnose. If diagnosed early, some are amenable to operation. In cases that I have seen, the patients who have had acoustic and angle tumors usually have had their symptoms for a long time.

These patients are often first seen by their family physician, who may refer them for a roentgen-ray examination of the head. If the radiologist employs the occipital and postero-anterior views, he should be able to make the correct diagnosis early. This is an examination that can be made in any roentgen-ray department. It does not require the services of a highly specialized team such as is found in a teaching institution. If the radiologist does not employ routinely the occipital and frontal views in examinations of the head, he often cannot make a positive diagnosis in such lesions. He may return a negative report to the referring physician. What happens then? The refer-

ring physician obtains an erroneous impression as to the possibilities of the roentgen-ray examination. The patient becomes dissatisfied and consults other physicians until finally some one diagnoses the lesion.

I am told by general radiologists in small communities that they cannot be expected to make such a diagnosis. I do not agree with that attitude. Drs. Bailey and Gotten have reported that in over half of their patients changes have occurred that made it possible for them to make an accurate diagnosis. These changes are easily seen by the trained radiologist.

In addition to the changes described by the essayists, information can be obtained about the sella turcica, foramen magnum, atlas, mastoids, lateral sinuses, and the position of the pineal body.

All radiologists should include this procedure as a part of routine head examinations. An occasional positive diagnosis in a patient with obscure clinical findings will more than compensate them by stimulating them to further efforts.

THE CONSERVATIVE TREATMENT OF VASCULAR SPASM IN PERIPHERAL VASCULAR DISEASE*

ISAAC STARR, JR., M.D., PHILADELPHIA

Of recent years interest in peripheral vascular disease has increased greatly. This is undoubtedly due to a marked increase in the number of cases. The unexplained growth in the incidence of thrombo-angiitis obliterans and the prolongation of life in diabetes by means of insulin and improved dietary measures, permitting these patients to live to the age in which vascular disease appears, have made peripheral vascular disease the concern of almost every practicing physician.

Disease of the peripheral vessels may be divided into 2 main groups:

1. That in which the lesion is predominantly a spasm of the peripheral arteries. Raynaud's disease is the most common example of this type. Achrocyanosis is another example.
2. That in which there is organic obstruction to the circulation. Diabetes, thrombo-angiitis obliterans, and senile arteriosclerosis are the common examples.

In the second type the pulse disappears from the main peripheral arteries; necropsy shows that their lumen has been obliterated by thickening of the wall and thrombosis, but acute symptoms may not appear for years after a main artery has been closed. Obviously the blood must be making its way to the extremity through other vessels. In recent years it has been realized that these compensatory vessels might be the seat of vascular spasm which would seriously

diminish the already reduced blood supply to the extremity. A spasm of this type can be a cause of pain in patients with the organic type of peripheral vascular disease.

It was originally shown by Sir Thomas Lewis that, when a minute amount of histamine is introduced into the skin, a reaction promptly follows which has the appearance and produces the sensation of a mosquito bite. If the circulation is obstructed, as by applying a tourniquet, the skin reaction to histamine changes; the appearance of the wheal and the hyperemic zone around it is delayed, or they may not appear at all. Therefore, the rapidity and completeness of the cutaneous histamine reaction forms a convenient method of roughly measuring the circulation in a diseased extremity.

A patient with Buerger's disease was free from pain, and the reactions below the knee were abnormal. They should have been complete in 5 minutes like those above the knee. A few minutes later the pain appeared, and subsequently the histamine reactions showed marked diminution. As there was no change in the systemic blood pressure to cause the change in the peripheral circulation, the diminution of circulation and the pain which accompanied it must be attributed to constriction of vessels. Therefore I agree with G. E. Brown and other authors that spasm of vessels is an important factor in the organic as well as the spastic types of peripheral vascular disease and I regard it as a cause of pain in such conditions.

* Read before a General Meeting of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 3, 1934.

S. G. Buerger's Disease

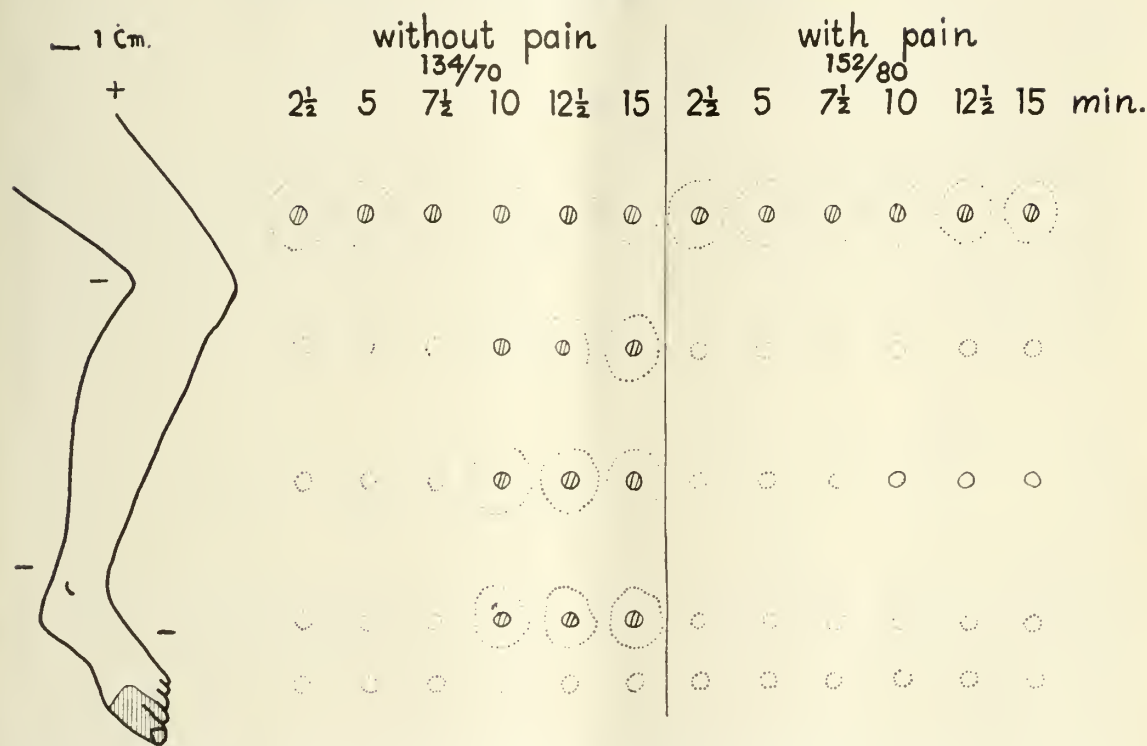


FIG. 1.—Diminution in cutaneous histamine reaction on leg of a case of thrombo-angiitis obliterans during an attack of pain. After the pain had disappeared spontaneously the reactions returned to their original intensity.

The histamine reactions are indicated diagrammatically, and are in scale with the ruled centimeter in the upper left-hand corner. The tests were placed on the anterior aspect of the leg at the level indicated by the relation to the leg diagram. The numbers indicate the blood pressure and the time in minutes after the introduction of histamine. Small dotted circles indicate red spots; the much larger dotted circles indicate the outline of flares. Wheals are outlined by a solid line, the number of cross hatches indicating height.

The presence or absence of arterial pulsation is indicated by a + or — sign located at the level of the artery on the leg diagram. Areas of gangrene or of acute inflammation have been shaded.

This is an important point because spasm of the vessels is amenable to conservative measures of treatment. This is no new idea. Vasodilators have been tried for many years in the treatment of Raynaud's disease, just the condition in which one would suppose that they would be of value. Most textbook statements, however, agree that they are of little or no value in peripheral vascular disease. If spasm is a factor, why have vasodilators fallen into disrepute? This is a puzzling question.

When a large dose of a rapidly acting drug such as amyl nitrite, nitroglycerin, or acetyl- β -methylcholine is administered subcutaneously to a healthy person, the blood pressure falls and the face flushes, indicating vasodilatation in that area, but no similar dilatation occurs in the hands or feet. Indeed skin temperature measurements, made on medical students during such experiments, show that the extremities usually become colder and suggest vasoconstriction rather than dilatation in the feet. There is a well-known physiologic explanation for this phenomenon.

When the blood pressure is lowered from any cause a reflex vasoconstriction is set up which tends to restore the blood pressure to the normal level. Thus, after a rapidly acting vasodilator, there is a conflict of tendencies, vasodilatation from the drug, and reflex vasoconstriction from the fall in blood pressure. The former invariably predominates in the face, but constriction usually overcomes dilatation in the feet. This fact affords an explanation of many failures to secure satisfactory results with vasodilators in times past. Reasoning suggests that to avoid vasoconstriction one must avoid a precipitate fall in blood pressure. This can often be accomplished by giving vasodilators in such a manner that they act very slowly.

Studies were made on the results obtained by giving acetyl- β -methylcholine (a vasodilator which acts slowly when given by mouth) to a patient with Raynaud's disease. The patient was placed in a cold room. After spasm appeared in the hands the drug was given. The skin temperature rose more than 10°C . as the spasm

relaxed; it fell as the drug's action passed off. In a case of Buerger's disease, the same drug caused a considerable rise of skin temperature. Studies were also made on the relief of pain by vasodilators. The patients were given a bitter-tasting mixture which sometimes contained the drug and sometimes did not. They were ignorant when they received it. In 3 cases relief was definite, the pain returning when the drug was omitted. In 1 case relief was obtained in spectacular fashion but, as the pain did not recur when the drug was omitted, there was doubt as to whether the drug was the cause. In several cases no relief was secured, which is to be expected in those cases in which spasm of the vessels is not a factor, but there seems to be no doubt that vasodilators, given so that they act slowly, are valuable in the treatment of both organic and spastic types of peripheral vascular disease.

If the hand is put in hot water, a maximum vasodilatation soon results which is far in excess of that secured by the administration of drugs by mouth or injection. Unfortunately the application of such high degrees of local heat is highly dangerous in peripheral vascular disease. In the normal limb the increased blood supply cools the heated part and prevents damage from the heat. If the circulation is obstructed this defense reaction cannot take place; the tissues will be injured by degrees of heat which would be borne with comfort by normal persons. Unfortunately sensory disturbances often accompany peripheral vascular disease. Many patients are unable to distinguish heat from cold. The patient is often unconscious that his foot is too hot; he may only know that it is painful, or he may not be aware of any sensation until damage has been done. The ordinary foot cradle, wrapped in blankets and containing a number of electric light bulbs constantly lighted, usually overheats the part. Its use has caused much unnecessary pain, has contributed to the extension of lesions, and has led to eventual amputation. The optimum temperature for a limb afflicted with peripheral vascular disease has been determined by experiment to be about 94° F. A cradle to maintain the foot at this temperature has been designed. The relief of pain secured by using it has been marked. E. L. Sevringhaus, of Wisconsin, who has designed a cradle on the same principle but of different construction, has had a similar experience in securing relief of pain and healing of lesions.

A change in point of view, therefore, is needed. Organic peripheral vascular disease should not be treated by means of local heat. The object should be to maintain the temperature of the

extremity at its normal level. In severe cases this must be done artificially because the patient, due to his reduced blood supply, has lost the power of doing it for himself. He cannot maintain the temperature of the diseased limb at the level at which the tissues are accustomed to function. It is probable that the powers of resistance and repair are thereby reduced.

There are a number of other methods which may be used to cause vasodilatation in the feet. Thomas Lewis and G. W. Pickering showed that vasodilatation in the feet could be secured by heating the body but not the feet in an electric light cabinet. The same effect can be secured by having a patient lie in hot water in a bath tub while the feet are supported above the water. J. H. Gibbon, Jr., and E. M. Landis showed that a maximum vasodilatation in the feet can be secured by immersing the hands in hot water. Adapting this idea to purposes of treatment I have taken an electric heating pad, wrapped it with blankets, and had the patient place his hands in it as in a muff which extended to the elbows. The heat should be sufficient to make the patient sweat, but not enough to cause discomfort. The vasodilatation in the feet comes on slowly, and maximum results should not be expected before half an hour or longer. A number of patients have reported that relief of pain followed this simple procedure.

The introduction of drugs directly into the skin of the diseased part by means of the electric current, an old idea, has been revived by J. Kovacs, of New York, using acetyl- β -methylcholine, and J. C. Doane, of Philadelphia, using histamine. I have tried this method in a few cases. The feet of one patient with arteriosclerosis were repeatedly changed from deep purple to bright red by this means, and the improved color persisted for an hour or longer after the iontophoresis had been stopped. The exercise of walking promptly made the feet blue again, and claudication was little, if at all, affected by a series of such treatments. In one case of Raynaud's disease I was unable to cause relaxation of spasm of the vessels in the hands induced by exposure to cold, an observation which supports the view of Sir Thomas Lewis that this condition is a spasm of deep vessels. But in advanced cases of organic obstruction the color changes are so striking that the method is certainly worthy of trial.

The intravenous injection of large amounts of fluid has been used as a means of treatment by S. Silbert and others. Certain authors, chiefly Japanese, believe the beneficial effects are due to a lowering of the blood's viscosity, but this is

a minor factor. The benefit to be attributed to vasodilatation is analogous to that which so regularly occurs in animal experiments when the blood volume is increased. The giving of large amounts of fluid by mouth or duodenal tube probably acts in the same way.

The induction of fever by the injection of typhoid bacilli or other foreign protein will cause a marked vasodilatation in the vessels of the feet. Unfortunately this is preceded, during the stage of the chill, by a constriction of the vessels of the extremities, and thrombosis may occur. Therefore, this method will probably be abandoned in favor of less hazardous, less uncomfortable, and equally effective procedures.

The surgical methods of causing vasodilatation, sympathectomy, nerve section, and nerve block, are beyond the scope of this paper. They represent a field of great possibilities, but one not yet well stabilized. They should be employed if the kinds of treatment mentioned have been tried and failed. Failure of conservative treatment will not be infrequent in these difficult and dangerous conditions. On the other hand, by the diligent and skillful application of conservative measures of the type mentioned, I have seen many patients threatened with amputation become free of pain, regain functional use of the limbs, and maintain it for a period of years.

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INITIAL WEIGHT-LOSS REDUCTION IN NEWBORNS*†

JOHN D. DONNELLY, M.D., ARDMORE, PA.

Until recently, weight loss during the first few days of life has been accepted as being physiologic. In 1873, Kezmarsky recorded an average loss of 8.19 ounces, half of which was regained by the seventh day. In 1907, Griffith and Gittings made a detailed study of this subject. The average loss of weight in their study was 10.93 ounces. They concluded that, although the initial weight loss could not be entirely prevented, it could be lessened materially by wet-nursing until the mother's milk was established, but this offered no great advantage; the difference in the rate of gain did not justify the administration of any artificial food during the first few days of life. Later studies have confirmed the initial weight loss as varying from 6 to 10 per cent.

As the first few days of life comprise a period of semistarvation accompanied by excessive water loss other than by way of the kidneys and intestines, it has been our practice in the past to use very weak dilutions of Dryco with sugar added to help meet the immediate basal metabolic and fluid requirements. The results were encouraging.

I. Newton Kugelmass has reviewed the subject of initial weight loss in a comprehensive and comparative manner. He points out that the newborn baby is markedly underdeveloped for the length of its gestation and that the initial weight loss is exogenous and environmental; such loss does not occur in other animals. W.

Cammerer's work is cited, which demonstrated the weight loss as being metabolic, the difference between the intake and output of energy (starvation). As the loss is not physiologic, it cannot be beneficial in principle. He calls attention to the syndrome in the newborn of apathy, anorexia, somnolence, lethargy, low blood pressure, low blood sugar, low blood chlorides, the tendency to subnormal temperature, and kindred signs which furnish evidence of shock incident to birth. After research and experimental studies, Kugelmass selected a mixture of 6 per cent neutral, unflavored, and unsweetened gelatin, 3 per cent dextrose, and 0.5 per cent sodium chloride solution as approaching the optimum medium of fluid and metabolic requirements (basal) for the prevention of weight loss during the first few days of life. Gelatin was selected because it is a hydrating substance, is well tolerated by the newborn, is easily assimilated, helps raise blood pressure, and increases temperature by its specific dynamic action; sodium chloride prolongs water retention and raises the blood chlorides; dextrose furnishes available energy and raises the blood sugar. This mixture has a caloric value of 12 calories per ounce. Its constituents meet practically all the requirements indicated when given every 2 hours, day and night. By this method and painstaking care on the part of the nurses to train the babies to take adequate amounts at a feeding, Kugelmass has reduced the initial weight loss to 1.9 per cent, the irreducible minimum as he terms it.

Two years ago we first tried Kugelmass' shock solution in the nursery on a group of 38 clinic infants. They were put to the breast 8 hours

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† From the Newborn Service, Maternity Division, St. Agnes Hospital, Philadelphia, Pa.

after birth and routinely thereafter. The shock solution was given 7 to 10 times in each 24 hours for 4 days, beginning within 4 hours after birth. The infants averaged an intake of 5 to 10 ounces the first day, 10 to 15 ounces the second day, 12 to 16 ounces the third day, and 14 to 18 ounces the fourth day. At the same time a control group of 38 private newborn infants were observed on routine water, sugar water, and formulae. The clinic newborns who received the shock solution averaged an initial weight loss of 3.8 per cent; the control newborns who received routine fluid intakes averaged 5.6 per cent weight loss. All fluids were given between or after breast feedings (see Table I).

of this régime. The clinic infants were given the shock solution for 2 to 4 days, beginning within 4 hours after birth, and the private infants received varied types of feeding and routines. Under this feeding schedule results were obtained as shown in Table IV.

The moderately low initial weight losses shown in Table IV are due apparently to improved and better nursing and handling of the infants rather than to any one type of feeding used in the first few days of life. Ninety per cent of the clinic infants were breast-fed exclusively upon leaving the hospital. Seventy per cent of the private infants were breast-fed when discharged. Of

TABLE I

CLINIC NEWBORNS				PRIVATE NEWBORNS			
Number	No loss	Percentage of weight loss	Weight pounds	Percentage of weight loss	No loss	Number	
0	1	...	4 to 5	4.5	0	2	
3	1	5.4	5 to 6	9.3	0	2	
13	2	3.5	6 to 7	3.7	1	12	
14	5	3.3	7 to 8	6.5	1	13	
5	1	4.1	8 to 9	6.2	1	9	
2	0	4.7	9 to 10	...	.	0	
1	0	6.0	10 to 11	...	..	0	
38	9	3.8	Total	5.6	3	38	

Encouraged by these results, we selected another group of 14 clinic newborns and one of 18 private newborns who did not have special nurses. To both groups we fed the shock solution routinely and under better conditioning circumstances every 2 or 3 hours, according to the individual baby's imperative needs. Breast feeding was routine. In each of these groups, the average initial weight loss was reduced to 2.9 percent (see Table II).

the clinic infants, 89 per cent regained their birth weight by the tenth day, the majority of which had regained their birth weight by the end of the first week. This was approximately true also of the private newborns as shown in Table V.

SUMMARY

With adequate nursing and proper handling of each infant fed Kugelmass' shock solution every 2 hours, day and night, the initial weight

TABLE II

CLINIC NEWBORNS				PRIVATE NEWBORNS			
Number	No loss	Percentage of weight loss	Weight pounds	Percentage of weight loss	No loss	Number	
3	2	1.9	5 to 6	1.2	1	2	
6	0	3.7	6 to 7	3.1	1	5	
5	0	2.6	7 to 8	2.4	0	6	
0	.	...	8 to 9	4.1	1	5	
14	2	2.9	Total	2.9	3	18	

When private newborns were properly handled by special nurses and fed the shock solution every 2 hours, day and night, the results were exceptionally good, as the feeding régime was instituted at various periods during the first 24 hours, after which period they were first put to the breast (see Table III).

In the hospital in which the routine is third-hour feeding through the day and fourth-hour at night, it is difficult to secure sufficient nurses and supervisors to insure the proper maintenance

loss can be reduced to 2 per cent or less. Newborns receiving adequate amounts of this mixture nursed better, consumed larger amounts at each feeding, reacted sooner to their environment, and exhibited fewer urticarial eruptions. There was no evidence that it influenced the rate of weight gain after the fifth day. When the shock solution is fed but 7 times in 24 hours to the average normal newborn, it offers no special advantage in reducing the initial weight loss.

TABLE III

5 lbs.		8 lbs.		9 lbs.
15 oz.		15 oz.		15 oz.
14 oz.		14 oz.		14 oz.
13 oz.	No loss	13 oz.	2.5% loss	13 oz.
12 oz.		12 oz.		12 oz.
11 oz.		11 oz.		11 oz.
10 oz.		10 oz.		10 oz.
9 oz.		9 oz.		9 oz.
8 oz.		8 oz.		8 oz.
7 oz.		7 oz.		7 oz.
6 oz.		6 oz.		6 oz.
5 oz.		5 oz.		5 oz.
4 oz.		4 oz.		4 oz.
3 oz.		3 oz.		3 oz.
2 oz.		2 oz.		2 oz.
1 oz.		1 oz.		1 oz.
4 lbs.		7 lbs.		8 lbs.
Days: 1 2 3 4 5 6 7 8 9 10 11 12		Days: 1 2 3 4 5 6 7 8 9 10 11 12		Days: 1 2 3 4 5 6 7 8 9 10 11 12 13

TABLE IV

CLINIC NEWBORNS			PRIVATE NEWBORNS			
Number	No loss	Percentage of weight loss	Weight pounds	Percentage of weight loss	No loss	Number
0	.	...	3 to 4	6.3	.	1
1	.	5.6	4 to 5	4.6	1	3
6	.	2.9	5 to 6	2.6	1	11
23	.	2.7	6 to 7	2.7	2	46
39	1	3.2	7 to 8	2.9	.	54
11	1	2.7	8 to 9	2.7	1	26
2	.	2.2	9 to 10	2.7	.	4
0	.	...	10 to 11	2.3	.	1
82	2	3.0	Total	2.8	5	146

TABLE V

CLINIC NEWBORNS									PRIVATE NEWBORNS									
Day of regained weight									Day of regained weight									
10	9	8	7	6	5	4	3	No loss	Weight (lb.)	No loss	3	4	5	6	7	8	9	10
									3 to 4									1
									4 to 5	1								
									5 to 6	1	1	1	2	2	1	1	1	
									6 to 7	2	1	4	11	6	8	8		
									7 to 8		2	2	4	10	12	5	5	3
									8 to 9	1		1	1	7	5	1	3	2
									9 to 10							1		
									10 to 11				1					
4	10	9	17	15	7	7	2	2	Total	5	3	8	19	25	26	16	9	6
									%	24								
									%	41								
									%	59								
									%	70								
									%	76								
									%	80								

ABSTRACT OF DISCUSSION

J. GIBSON LOGUE (Williamsport): In the Williamsport Hospital we have used the gelatin type of feeding in the newborn baby, but I am not prepared to report the results. Unfortunately the newborn baby remains a maternity charge unless things have gone astray.

PERSIS STRAIGHT ROBBINS (Bradford): May I ask Dr. Donnelly if he has any statistics about the later results in these children who have been fed during the first 3 or 4 days of life?

DR. DONNELLY: No such tests were made because of the fact that a child may gain satisfactorily or may not gain after the fifth day. It depends solely upon the feeding and not upon the initial fluid intake, whether it

be a simple fluid or shock solution or a formula. After the fifth day it is solely a feeding problem.

DR. ROBBINS: That was not exactly what I meant. I wondered if later in life those children got along better who had been given food besides the breast food in the first 3 or 4 days.

DR. DONNELLY: I can answer that only from memory of private cases within the last 2 years, but I cannot say that in their development there is any difference between those and the babies who have been fed other substances. It did not seem to make any difference up to age 2 in private cases. I did not pay any particular attention to that, but no feature of difference was noticed.

DR. ROBBINS: It is really improving on nature.

DR. DONNELLY: I think it is only a temporary procedure, that is, for weight loss. I am not discussing influences other than on body weight.

S. A. EVERETT (Freeland): Does Dr. Donnelly consider that dehydration is related directly to metabolism? In other words, would vitamin D or B aid in this initial prevention of loss of weight?

DR. DONNELLY: I cannot answer that for lack of actual knowledge. The first thing that is required is fluid, which the vitamins do not regulate, and the next thing is calorie administration or consumption, which

vitamins would not supply. We are all familiar with vitamin deficiency as scurvy in infants; feeding vitamin C is absolutely an independent process to the diet—that is, except for a normal diet of vitamin C.

DR. EVERETT: With that idea in mind, it has been our custom to feed vitamins A, B, and D with a pure wheat food all through the first year. It is interesting to know whether it is a problem of dehydration or whether it is a problem of trying to build up lowered vitamin content.

DR. DONNELLY: It has been definitely proven that it is an actual dehydration—excess fluid loss over intake, and excess energy loss with burning of muscle and tissue.

FACIAL PARALYSIS FROM ACUTE MIDDLE EAR DISEASE*

HENRY DINTENFASS, M.D., PHILADELPHIA

Facial paralysis in acute middle ear disease is comparatively uncommon. In the cases collected by D. MacKenzie, B. Danelius, G. A. Boyd, S. Kopetsky, and others, the ratio of facial nerve palsy to the total number of ear affections ranged from less than 1 to 3 per cent.

Most cases of facial paralysis in the course of acute ear infections are of the peripheral variety. Those of central origin, that is, in the tract above the facial nucleus in the pons, are exceedingly rare and will not be considered in this symposium.

That facial paralysis may follow a virulent mastoid infection is recognized. Here its presence might serve as an indication for the necessity of radical procedures. That such paralysis may also result from a simple catarrhal otitis media has not been generally accepted.

The mode of involvement of the facial nerve will best be understood from a study of the anatomic relationship. The nerve, with its protecting sheath, leaves the skull by way of the internal auditory meatus, proceeding outward through the temporal bone until it reaches the tympanum. Crossing the inner wall of this cavity it bends sharply downward to make its exit from the stylomastoid foramen. In its course through the bone the nerve is encased by the facial canal. Occasionally, due to congenital variation, dehiscences of this canal may occur. Openings in the facial canal as it traverses the tympanic cavity also exist for the passage of the chorda tympani nerve, the stapedius branch of the facial nerve, and the tympanic branch of the stylomastoid artery.

The facial nerve can be affected in acute ear

conditions in 2 ways: (1) By the spread of edema and inflammation from the middle ear or mastoid process along the pathways of the structures passing between the tympanic cavity and the facial canal or through a dehiscence; (2) by an actual osteitis of the facial canal wall resulting from the extension of mastoid necrosis. The paralysis may be brought about by direct involvement of the nerve within its sheath or from pressure outside the sheath. Politzer believed that in most cases pressure on the nerve within the sheath was the causative factor since frequently he had seen the nerve lying free in the tympanum without symptoms of facial paralysis being present. This opinion is concurred in by K. Ney, whose experience during the World War proved that an intact nerve trunk is very resistant to surrounding infection but is quickly affected by even the slightest variation in pressure. The compression action of the sheath was demonstrated recently by A. B. Duel in a series of experiments on monkeys. He induced facial paralysis by freezing the exposed facial nerve with ethyl chloride and also by the injection of alcohol into the sheath. In some of the experiments the wound was closed without slitting the nerve sheath, in others the nerve sheath was slit. It was found that in cases in which the nerve sheath was slit recovery from the paralysis was twice as rapid as in those cases in which it was left intact.

The facial nerve in its course through the long, bony canal, which it entirely fills and to which its sheath is attached, will be compressed by minor degrees of vascular change whereas nerves not so confined will not be affected because of the give of the surrounding tissues.

It would seem from the foregoing that the presence of even slight edema or congestion in a vital location at times would be sufficient to cause

* Read before the Section on Eye, Ear, Nose, and Throat Diseases of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 3, 1934.

facial paralysis. Such a condition may arise from a mild catarrhal otitis media.

The following 4 cases, presented rather briefly, demonstrate the variety of acute ear conditions that might be responsible for facial paralysis.

CASE 1.—A middle-aged woman developed a right sided catarrhal otitis media which was followed a day later by facial paralysis on the same side. The tympanic membrane was reddened without being bulged. Hearing was definitely impaired, but the temperature was not elevated and the patient would not go to bed. No paracentesis was done. All the symptoms including the paralysis disappeared completely in 4 days by the employment of the usual conservative measures for catarrhal cases. Several years later the patient had a similar attack of acute middle ear catarrh of the same side associated with similar involvement of the facial nerve. Conservative treatment was again responsible for complete recovery in a few days.

It could be advanced that this patient had the ordinary facial paralysis of Bell's palsy and that the middle ear inflammation was merely coincidental and not the causative factor. This case, however, conforms to the type referred to above and reported by MacKenzie, who believed that facial paralysis might attend an attack of catarrhal otitis media so mild that the patient is unaware of any symptoms of ear disease. Unless a special examination of the ear is made the real cause of the nerve disease is never discovered.

CASE 2.—A young male adult exhibited a facial paralysis several hours after a severe earache. The examination of the drumhead showed it to be reddened and bulged especially in Shrapnell's area. There was a slight elevation in temperature. A paracentesis resulted in a free flow of serosanguineous discharge. In 24 hours improvement of the facial paralysis was seen. Recovery was complete in a week.

In this instance it is impossible to prove that the paralysis was caused by the otitis since they both appeared at almost the same time, but it seems that the middle ear was a factor in the production of the paralysis judging from the prompt relief of the paralysis following paracentesis. Troutman, quoted by MacKenzie, found that the facial paralysis in a case of acute otitis media disappeared after paracentesis and returned again with the reappearance of the exudate to disappear finally when the ear disease was completely cured.

CASE 3.—A female child, age 2½ years, developed a bilateral otitis media after a nasal infection. Paracentesis was productive of a profuse purulent discharge from both ears. The temperature varied from 99° F. to 102° F. for 10 days, during which time there was no mastoid tenderness nor sagging of the posterior canal wall on either side. After this period the symptoms abated. The temperature remained normal and the discharge diminished. The appetite increased and the outlook for recovery without surgical measures

seemed quite probable. For 2 weeks the apparent improvement continued until one morning the mother noticed a slight drawing up of the corner of the mouth when the child laughed. This condition grew rapidly worse, and when the patient was examined several hours later there was a complete right-sided facial paralysis. Operation was immediately performed. Removal of the cortex on the paralyzed side disclosed frank pus, considerable necrosis of the mastoid cells, and exposure of the middle fossa. A mastoidectomy was done on the other side, revealing similar pathologic involvement. At the end of 48 hours disappearance of the paralysis began. Complete recovery took place within a month.

In this case the extent of the pathologic involvement of the mastoid was not recognized until the appearance of the facial paralysis which, occurring rather late in the disease, proved to be an absolute indication for the urgency of radical procedures.

CASE 4.—A girl, age 12, was stricken with an acute otitis media following influenza. Two days later the ear spontaneously perforated. On the following day the symptoms, pain and elevation of temperature, increased and in addition a beginning facial paralysis on the same side was noticed. In the succeeding 48 hours the temperature continued high, 102° F. to 103° F., the mastoid process becoming more painful and tender, and the facial palsy more marked. A mastoidectomy was done one week after the onset of the ear trouble. While no frank pus was seen, necrotic bone was found in the antrum area. On the morning following the operation improvement in the paralysis, with alleviation of the other symptoms, was quite apparent. Six weeks later the patient had entirely recovered.

In this case the comparatively early appearance of the facial paralysis was a relative indication for surgical mastoid drainage. Without the presence of the other symptoms of mastoid involvement operation might have been deferred. In Cases 3 and 4 there was no macroscopic evidence of dehiscences of the facial canal.

SUMMARY

1. Four cases of paralysis of the facial nerve in acute middle ear disease are briefly presented.
2. In 2 cases hospitalization and surgical drainage of the mastoid were necessary. The other 2 were office patients. In one a paracentesis was done. In the other conservative treatment of the acute otitis media without the incision of the tympanic membrane was sufficient for cure.
3. Facial paralysis occurring early in the course of an acute otitis media appears to be a relative indication for opening the mastoid, and operation is not called for unless other symptoms demand it.
4. Facial paralysis occurring late in acute otitis media is an absolute indication for mastoidectomy.

5. Facial paralysis can develop from the spread of edema and inflammation through dehiscences or other openings in the facial canal, or it may be brought about by an osteitis of the facial canal by an extension of mastoid necrosis. Disturbance of the nerve function results from involvement of the nerve within its sheath or from pressure outside the sheath.

6. The facial nerve, enclosed by its sheath, completely occupies the facial canal. It is, therefore, readily compressed by slight vascular engorgement. For that reason dysfunction of the nerve is possible in acute otitis media or even the catarrhal type.

7. In the so-called idiopathic or Bell's palsy variety of facial paralysis, in which the etiology is obscure, involvement of the middle ear might be revealed if a careful examination is made.

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ABSTRACT OF DISCUSSION

JOHN B. McMURRAY (Washington): About 10 per cent of facial palsies are caused by acute or chronic suppurative otitis media. The incidence of facial palsies during acute otitis media must be quite low when one considers the great number of acute otitis media cases and the very few facial palsies seen by otologists.

There may be dehiscences in the bony capsule of the fallopian canal through which infection may reach the nerve. These abnormalities are also rare and may correspond to the number of facial palsies caused by acute otitis media. Theoretically, at least, involvement of the facial nerve in the canal should also involve the chorda tympanic branch of the facial nerve, with loss of taste from the anterior two-thirds of the tongue and the salivary secretion diminished from the submaxillary and sublingual glands on the homolateral side. However, this is not infallible as to the location of the lesion as cases of undoubted peripheral origin sometimes show involvement of the chorda tympanic branch 10 days to 2 weeks later as the neuritis ascended into the canal.

The etiology of facial paralysis is often obscure, yet cold winds can be the cause, also infections in the nose, throat, and mouth, not by direct extension through the ear but by absorption of toxins, with or without a middle ear complication. Most cases of acute otitis media are extensions through the tube of infections from the nose and throat. The importance of a complicating facial paralysis as an indication for posterior drainage of the middle ear must be considered in the light of the fact that only 1 out of 10 facial palsies are of otitic origin, that 8 out of 10 are peripheral and caused by exposure to cold winds or draughts, or toxins from infections in the nose, throat, or teeth, or from influenza, etc. If there is an otitis and a facial paralysis as a complication, it might as well be a facial paralysis complicated by an otitis media but originating from an antecedent infection in the nose and throat, the 2 occurring simultaneously.

Therefore facial paralysis occurring early in the course of an acute otitis media is only a relative indication for posterior drainage of the middle ear, and operation should be done only when symptoms of mastoid involvement demand it. In these cases, as in all other acute middle ear disease with mastoid involvement, very early operation is contraindicated. Facial paralysis

occurring late in an acute otitis media with other suggestive evidence of mastoid involvement is a positive indication for mastoid surgery.

ARTHUR J. WAGERS (Philadelphia): In the first 2 cases presented by Dr. Dintenfuss the infection appears to have been limited to the tympanic cavity, and there was prompt restoration of function under the usual and successful treatment of the otitis media.

The fact that the paralysis so promptly disappeared with the subsidence of the otitis media would seem to prove beyond reasonable doubt that the temporary loss of seventh nerve function was directly due to swelling and consequent pressure upon some portion of the nerve lying within the facial canal.

Case 3 presents some points of interest. In this case there was a bilateral middle ear infection. Early incision of the membrana tympani provided free drainage. The ear condition showed steady improvement for 10 days, during which time there were no signs of mastoid involvement until the appearance of beginning facial paralysis on one side. This was taken as a distinct indication for opening the mastoid on the affected side, in which there was found advanced suppuration. Operation was done on the opposite side and similar involvement found. In such a case, how do we explain the paralysis being unilateral when the whole picture from the early history to the exposed mastoid pathologic involvement was practically the same for both sides?

In fact, it is rather difficult to explain why, with the hundreds of violently acute middle ear and mastoid infections, there are so very few cases in which the facial nerve is at all disturbed, whether the infection be on one side or both. Possible dehiscences in the course of the facial canal offer one explanation. Another possible explanation may be that the lumen of the bony canal may vary on the 2 sides while the diameter of the nerve trunks is the same. There is so little we may know with certainty concerning the pathologic changes in these living subjects that we must necessarily resort to much speculation.

The appearance of facial paralysis in any case presenting the possibility of mastoid infection calls for operation without delay. This was very forcibly impressed upon me by the case of a young woman brought to my office with a history of onset of acute otitis media 17 days previously. Spontaneous rupture of the membrana tympani had occurred on the fourth day. Three days before I saw the patient, slight muscular weakness had been noticed at the angle of the mouth. Enunciation was slightly disturbed. These observations together with the presence of profuse middle ear discharge, severe postauricular pain, and rise of temperature seemed to be imperative indications for immediate mastoidectomy.

Removal of the cortex exposed most extensive necrosis within the mastoid process, particularly in the area near the tip. I greatly feared that the facial nerve was exposed. However, all the necrotic material was removed without the nerve being exposed to view. Within a short time after the operation was completed, however, the facial nerve paralysis was much more marked although the eye could still be closed. It was certain that the nerve had not been severed, but I was rather dubious about the outcome for the patient. During the 2 months following operation there was no apparent change in the facial condition although the mastoid wound had healed promptly. After this period, however, slow but gradual improvement in muscular action took place until, when the patient was last seen 9 months

after operation, the facial nerve had almost entirely resumed its normal function.

What happened to the nerve at the time of operation, I do not know. There is the possibility of hemorrhage within the facial canal. The resulting clot may have afforded the pressure necessary to bring about almost complete loss of function in an already inflamed nerve. In time, gradual absorption of the clot may have taken place with consequent restoration of function.

GEORGE W. MACKENZIE (Philadelphia): In regard to the relation of the size of the fallopian canal to the

nerve, it takes very little pressure on the nerve within the canal to cause facial paralysis. The cross-sections show that the nerve is not much more than one-quarter the diameter of the canal. There are some connective tissue and very small vessels between the canal wall and the nerve.

There are dehiscences of the canal; however, there is connective tissue breaching over the dehiscence of the bone.

If facial paralysis develops in the course of an acute middle ear infection, suspect diabetes.

BRAIN TUMOR*†

Report of 2 Cases

ROBERT A. KNOX, M.D., AND GEORGE W. RAMSEY, M.D., WASHINGTON, PA.

These cases are presented because of the contrast in history, location, and diagnostic problems encountered. One presented a fairly typical case of subtentorial tumor and no great difficulty in diagnosis. The other was supratentorial, a less frequent location in childhood which together with a confusing history made the diagnosis difficult.

CASE 1.—R. L., white male, age 10, the first child of these parents. Previous history irrelevant.

Family History: Father, mother, one sister living and well.

Present History: First seen Jan. 30, 1933. The parents offered the following: The illness began Dec. 23, 1932, with nausea and vomiting, when at school. This attack subsided in a few hours and he seemed as well as usual. A second attack of vomiting, Dec. 25, was of short duration. Had only occasional attacks of nausea and vomiting until Jan. 15, 1933, when progress was characterized by persistent daily vomiting, more pronounced in the morning, usually preceded by frontal headache and vertigo. Emptying the stomach seemed to relieve the distress. The vomitus was not characteristic and the type of food apparently had no relation to the vomiting. The sight of food sometimes caused nausea. Since about Jan. 1, complained of "spots before his eyes" and apparently had some blurring of vision as he expressed the belief that he "should have glasses." Was fairly well nourished. Seemed somewhat stuporous. Unsteady gait. Replied to questions as briefly as possible, the answer often being delayed. Physical examination revealed no definite disease. The temperature was normal; pulse 80, volume fair; respiratory rate 24; blood pressure 120/80.

Admitted to the Washington Hospital, Jan. 31, 1934. The urine was negative. Blood examination—hemoglobin 91 per cent, red blood cells 4,760,000, white blood cells 6850, polymorphonuclear cells 69 per cent, lymphocytes 21 per cent, endothelioids 8 per cent, eosinophils

1 per cent, myelocytes 1 per cent. Kahn blood test negative. Nonprotein nitrogen 30; blood sugar 130. Phenolsulphonephthalein kidney function—first period 15 per cent, second period 7.5 per cent. Ophthalmologist's report: "The eyegrounds show absence of normal cup. Swelling of both disks to about level of rest of fundus. The veins are more tortuous than the average and slightly fuller. Two very small hemorrhages just at the temporal side of the disk of the left eye. There is evidently obstruction of venous return."

On Feb. 2 the blood pressure was 125/90. He was drowsy. Lumbar puncture was done cautiously Feb. 2. The pressure was 45 mm. of mercury, fluid normal. More alert after the lumbar puncture. Provisional diagnosis of brain tumor was made and he was admitted to St. Francis Hospital, Pittsburgh, Feb. 7, 1933.

Examination revealed a rather listless youth who answered questions by nodding whenever possible, otherwise after repeated questioning. Coöperated rather well and seemed to be perfectly conscious of his surroundings. There was no diplopia. The pupils were round and equal, reacted to light and accommodation. Coarse, horizontal nystagmus in lateral gaze, left more marked than right. Some tendency to exophthalmus.

Neurologic Examination: "Coördination slightly impaired in right sided, upper and lower extremities, reflexes generally depressed. Right knee jerk and ankle clonus greater than left. No gross impairment of sensation. Swelling of disk and hemorrhages in both fundi. Symptoms and signs all increased, indicating intracranial pressure of an acute type with retinal hemorrhages. Signs pointed to posterior fossa lesion." Eye examination revealed provocative nystagmus especially to the right. The right eye showed acute papilledema, 3 diopters' elevation with many hemorrhagic splashes. The left eye showed the same acute papilledema, 4 diopters' elevation with more hemorrhagic splashes. Frontation—concentric contractures both fields.

Barany Test: Both drums normal in appearance. Spontaneous horizontal nystagmus when patient looked in either direction, none on looking ahead. Spontaneous past pointing 3 inches to right with left hand, normal with right hand. Functional test (cochlea): Heard all forks with both ears, the whispered voice within normal limits with both ears. Rinne test positive. Vestibular response bad. Stimulation of left ear with wa-

* Read before the Section on Pediatrics of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 3, 1934.

† From the Departments of Pediatrics and Pathology, Washington Hospital, Washington, Pa.



FIG. 1.—Medulloblastoma. Low power.

ter at 68° F. produced no response from vertical canals in 4 minutes; no vertigo. On tilting head back, there was a slight amount of horizontal nystagmus to right. Past pointing 3 inches with right hand. Touch with left. Stimulation of right ear produced a slight response from vertical canals but nystagmus was horizontal instead of rotary. Horizontal nystagmus to left on letting head back. Past pointing 6 inches to left with right hand, 6 inches to right with left hand.

On Feb. 12, 1933, the bulk of evidence pointed to a left cerebellar localization; facial involvement; slight exaggeration of reflexes on right and poorer vestibular response on left. Suboccipital craniectomy was indicated.

At operation, Feb. 14, 1933, a tumor mass was found extending directly into the fourth ventricle and attached to its floor. A considerable portion of the tumor was removed. Pathologic diagnosis: Glioma, cystic type; medulloblastoma.

Postoperative course was uneventful. Roentgen-ray therapy was instituted on Mar. 2, 1933, and continued indefinitely at intervals of about 3 weeks.

CASE 2.—Female, age 8, Austrian, first seen Sept. 3, 1932. She is the second child. Previous history is unimportant. Father, mother, one brother living and well.

Chief Complaint: Vomiting and headache which had begun 2 weeks before. The father stated he had been informed that an older child had seized the patient about the neck and struck her repeatedly over the head with a baseball held in the hand. The first symptoms to appear were those of right frontal headache, paralysis of the left side of the face, a slurring of speech, impairment of power of the left arm, particularly noticed

in the weakened grip of the left hand. Apathetic and nauseated; even vomited water at frequent intervals.

Physical examination revealed a well-nourished and developed child whose weight was 60 pounds, 13½ ounces. Temperature 99.4° F., pulse 108, and respiration 24. Blood pressure 90/50. The left pupil was somewhat larger than the right and reacted sluggishly to light. There was left facial paralysis. Ears negative. The antri transilluminated normally. Some fullness of the thyroid. There was no anteroposterior rigidity of the neck but slight lateral rigidity. Chest and abdomen showed no disease. Right knee jerk was present and active; the left was absent. There was an impairment of power in the left arm and hand. When objects were grasped in the left hand, the thumb folded itself into the palm.

Improvement noted and on Sept. 8 seemed as well as usual. During the evening, talked and played with her brother. Retired at the usual time. About 11 p. m. an unusual type of noisy breathing attracted the attention of the parents, who found her unconscious. The head was turned strongly to the left. The pupils were widely dilated and there was a definite nystagmus to the left. The left arm was flaccid, the right arm thrust above the head, and a round of the bed grasped firmly in the right hand. Paralysis of the face had persisted. The muscles of the entire left side, abdomen, and leg showed evidence of paralysis. There was also a mild spasticity of the entire right side. The temperature was 99° F. and cardiac rate was 140. Admitted to the Washington Hospital. Lumbar puncture yielded 25 c.c. of clear fluid under pressure of 25 mm. of mercury, which was negative. Within a few minutes, she was decidedly improved, understood when spoken to and seemed to understand what was going on about her but orientation

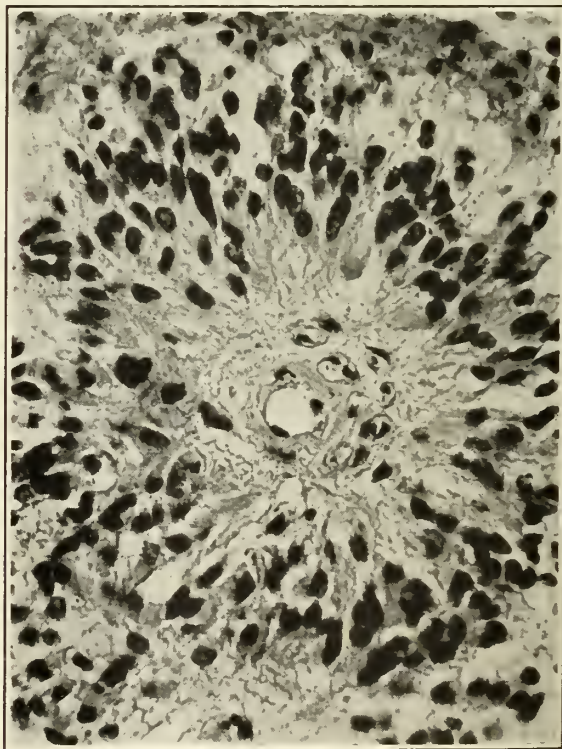


FIG. 2.—Medulloblastoma. High power.

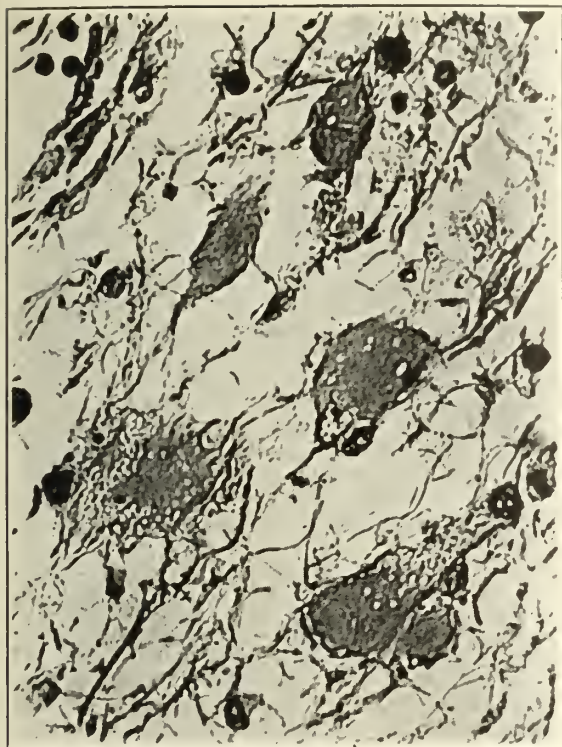


FIG. 3.—Astrocytoma. Astrocytes showing febrile formation.

was not complete. Twenty c.c. of 50 per cent glucose was given intravenously and fluid was restricted to 8 ounces in the following 12 hours.

The urine was negative. Hemoglobin was 87 per cent, red blood cells 5,450,000, white blood cells 21,400. Kahn blood test negative. Nonprotein nitrogen 33.3; blood sugar 85.

The following morning, Sept. 9, somewhat dull and, at times, delirious. Facial paralysis remained. Had a definite left wrist drop and the grip, while present, was very weak. No forearm reflexes could be elicited. The left leg practically normal.

Eye Report: "No significant abnormal changes noted in ocular fundi. Right eye, optic disk shows elevation of less than 1 diopter. Left eye, the optic disk shows elevation of between 1 and 2 diopters." Sept. 9, "roentgen-ray examination of the head shows no significant abnormal changes. No fracture of the cranial bones is demonstrated."

Continued to improve. On Sept. 13, the eyes were clear, pupils equal, and both reacted to light. No rigidity of the neck. Weakness of left facial muscles persisted. Wrist drop had largely disappeared. Right arm was normal. Touch with the left hand could be accomplished but only after overcoming incoördinate movements. Discharged from the hospital Sept. 15, 1932.

On Sept. 21, the facial paralysis had improved, the slurring of speech disappeared but weakness of the left arm and leg persisted. Appetite was excellent, and she weighed 62 pounds, 5 ounces (gain of $1\frac{1}{2}$ pounds). She was much brighter; the eyes were equal and reacted promptly to light. There was no nystagmus. The left facial paralysis was still present but less marked. Could extend the arm straight from the shoulder with only a slight tendency to wrist drop. Touch

was normal with the right hand; with the left hand after a visible effort. Continued to fold the thumb in the palm of the hand and was unable to extend the fingers and thumb normally. Unsteady gait, she was hesitant. There was a tendency to swing the left leg. The right abdominal reflexes were normal, the left weak. The left leg was more flaccid than the right leg and there was less vigorous flexion of the foot; both Kernig reflexes were absent. The surface temperature of the left leg and foot seemed lower than that of the right foot. There was no alteration in sensation.

Admitted to the Children's Hospital, Pittsburgh, Sept. 30, where she remained until December. Exhibited some elevation of temperature, rising gradually to 103° F. during the first 3 weeks and, during the fourth week, subsided to 100° F. The laboratory findings were confirmed.

On Oct. 1, 1932, showed partial paralysis of the left side with increased reflexes. There was a questionable Babinski reflex on the right side.

On Oct. 11, 1932, there were hemorrhagic areas and a moderate degree of optic neuritis, but there was some absorption of retinal hemorrhage of the right eye. The amount of swelling in the optic disk remained about the same but somewhat greater in the right eye.

On Dec. 2, 1932, there was increased spastic contracture of the left arm associated with an intensive tremor, muscular weakness, and athetoid movements; left ankle clonus was present.

On Dec. 3, 1932, showed evidence of intracranial pressure, both disks were swollen. Ventriculography, along with exploratory trephine of the frontal regions, was advised. Operation was refused and the child returned home a few days later. The condition remained

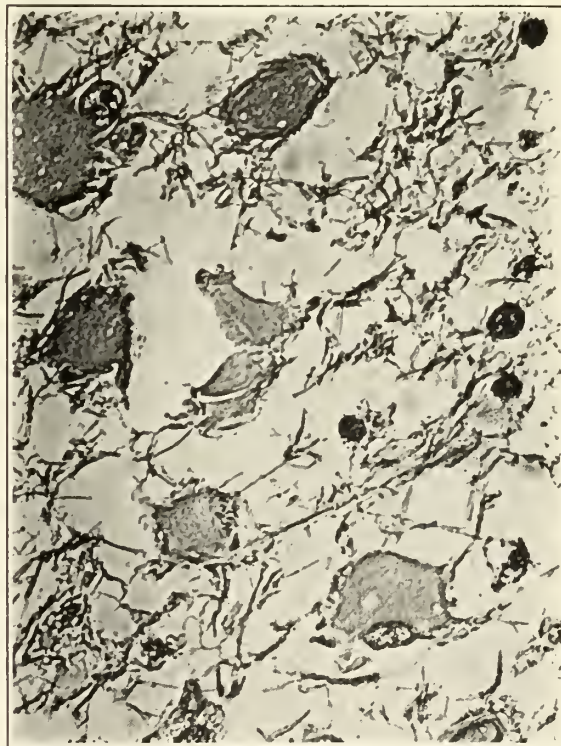


FIG. 4.—Astrocytoma. (Same as Fig. 3.)

much the same until about Feb. 1, 1933, when she appeared to be losing ground.

On Feb. 3, 1933, became unconscious and was readmitted to the Washington Hospital. Cried out at intervals as if in severe pain. The right pupil was larger than the left pupil, the left facial paralysis persisted, and there was a spastic paralysis of the left arm and leg. Tremor and ankle clonus present. The head was drawn sharply to the left side. Apparently unable to see and swallowed with difficulty. Coarse râles were heard throughout the chest. Lumbar puncture revealed normal fluid under pressure. Little or no relief followed the spinal tap. The urine contained albumin, acetone, and diacetic acid. The hemoglobin was 92 per cent, red blood cells 4,800,000, white blood cells 13,400. Blood sugar 109. The extreme restlessness and evidence of pain required narcotics. Progressively became worse. The temperature continued to rise, reaching 106 $\frac{3}{4}$ ° F. Died on Feb. 6, 1933, the illness extending over a period of 5 months.

Pathologic Report: "The primary tumor is located in the right parietal lobe, irregular in outline, and there are ramifications extending into the frontal, temporo-sphenoidal and occipital lobes. The basal ganglia are slightly invaded. Extension has occurred through the anterior two-thirds of the commissure to involve the left parietal and frontal lobes. The ventricles are not invaded.

"On section, the tumor cuts with increased resistance,

the cut surface is opaque, granular, and the color light pink. The margins are sharply defined and coherent with the surrounding brain tissue. There is one area of cystic degeneration in the right parietal lobe, $3\frac{1}{2}$ cm. in diameter. The vascular supply is not excessive. Gross hemorrhage is not present.

"Sections from various parts of the tumor show a uniform structure composed of astrocytes surrounded and separated by a loose network of fibrils. The tumor cells are large, stellate, and, as a rule, have numerous delicate fibrils of variable length. The cell cytoplasm is homogenous and frequently has numerous vacuoles. The nuclei are relatively small and are usually eccentrically located. The nuclear chromatin is condensed at the periphery with scattered chromatin granules throughout the nuclear body. Many nuclei have 1 or 2 small nucleoli. Mitotic figures are not present.

"Fatty degenerative changes are present and many tumor cells contain numerous small fat globules. In the stroma the fat appears as large and small globules. Deposits of fat are also found in the walls of the blood vessels. Pathologic Diagnosis: Astrocytoma."

We are indebted to Drs. Mitchell and Allen of St. Francis Hospital and to the Children's Hospital of Pittsburgh for clinical and pathologic material kindly provided.

447 Washington Trust Building.

THE ETIOLOGY OF EPISCLERITIS*

J. MILTON GRISCOM, M.D., PHILADELPHIA

A survey of the chapters on diseases of the sclera in textbooks on ophthalmology reveals the fact that although the clinical picture of episcleritis is adequately described, its etiology is usually dismissed in a line or two with rheumatism, gout, and tuberculosis given as the chief causes. A review of the literature also reveals a scarcity of reports on the etiology of this disease.

When compared with many other external inflammations of the eye, it is true that episcleritis occupies a minor rôle. This is probably due to the small percentage of cases encountered either in clinic or private practice, and to the fact that there is no ultimate impairment of visual acuity.

As the name indicates, only the superficial layers of the sclera in the anterior segment of the globe are involved. If the cornea or the uveal tract becomes affected the term episcleritis cannot be applied to the inflammatory condition present. Periodic fugitive episcleritis, deep scleritis, metastatic episcleritis with necrosis and ulceration, and localized scleritis due to intra-ocular disease are not included in this discussion.

The disease under consideration is characterized by a flat swollen area of episcleral tissue varying from 4 to 8 mm. in diameter, dusky red in color, over which the conjunctiva can be moved. This area is frequently sensitive to pressure and often located near the cornea but never at the limbus: it finally undergoes resolution, often leaving no evidence or, at most, a faint slate-colored area on the sclera.

Photophobia and pain are marked during the period of acute inflammation. After 2 or 3 weeks the symptoms tend to subside, but a recurrence in a previously unaffected area of the sclera is almost certain to occur. These attacks may go on for years, subjecting the patient to great discomfort and markedly reducing his efficiency.

Symptomatic treatment gives only moderate relief, so that the discovery and elimination of the basic etiologic factor is essential to effect a cure and prevent recurrences. It is the purpose of this paper to discuss these factors.

For several years the writer has been impressed with the great variety of causes of episcleritis in the patients who have come under his observation in private and clinic practice. Twen-

* Read before the Section on Eye, Ear, Nose, and Throat Diseases of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 4, 1934.

ty-five cases have been collected and tabulated, as shown in the accompanying table.

Name	Age	Sex	Etiology
C. J.	16	M	Teeth
E. B. S.	32	M	Teeth
J. D. McE.	25	M	Tonsils
K. L.	37	F	Tuberculosis
S. H.	29	F	Tuberculosis
J. S.	50	M	Teeth
D. M.	40	M	Syphilis
R. M.	40	F	Teeth
J. S.	47	M	Sinuses
M. K.	40	F	Teeth
L. B.	53	F	Tuberculosis
K. S.	23	F	Tuberculosis
H. M.	28	F	Syphilis and sinuses
M. C. F.	39	F	Sinuses
E. G.	38	F	Diffuse pelvic cellulitis
E. C.	32	F	Tonsils
R. S.	32	F	Tuberculosis
T. H. S.	74	M	Hyperglycemia
T. B. T.	45	F	Foreign proteins
H. C. C.	38	F	Tonsils
B. C.	55	M	Teeth and tonsils
E. N.	43	F	Tuberculosis
A. R.	23	F	Tuberculosis
J. V.	40	M	Hyperglycemia
W. R.	16	M	Syphilis

The ages varied from 14 to 74 years. Males were affected in 11 and females in 14 cases. The tonsils were the cause in 3, the sinuses in 2, the teeth in 5, tuberculosis in 7, syphilis in 2, hyperglycemia in 2, foreign proteins in 1, diffuse pelvic cellulitis in 1, while both teeth and tonsils had to be eliminated in 1, and sinuses and syphilis had to be treated in another case before a cure was effected.

The reports which appear in the literature concerning the etiology of episcleritis reveal a similar variety.

Prior to 1910 the articles which appeared were devoted almost entirely to treatment, and it was generally assumed that rheumatism, gout, exposure, and tuberculosis were responsible for the disease. In 1910 J. B. Lawford described a case in which there were 2 episcleral nodules which showed the microscopic characteristics of tuberculosis. This was confirmed by guinea-pig inoculation and by the development of tubercular glands of the neck a few months later. It is somewhat doubtful if this case should be classed with the type of episcleritis under consideration. The first indication of a break from the traditional conception of the etiology of episcleritis came in 1914, when Soulier stated that formerly rheumatism was given as the chief cause, but he believed that disorders of the alimentary tract were responsible for the disease.

In a case reported by Pfingst, the scleral lesion

cleared in 24 hours following tonsillectomy. Best had 2 cases which were syphilitic, while Valenzano and Spring both report cures following the use of tuberculin. Benedict observed 2 cases cured by a vaccine made from bacteria cultured from the cervix uteri. Villard had a patient, age 42, who had attacks of episcleritis in the left eye for 5 years with each menstrual period, beginning 8 days before the flow. By chance blood was removed for a Wassermann test just before a period, and the anticipated attack did not occur. She had no further trouble as long as a small amount of blood was removed from a vein 8 to 10 days before the period.

Discussing the therapeutic use of roentgen rays in the treatment of episcleritis, Illes reported 38 cases, 12 of which were due to tuberculosis, 7 to rheumatism, and in 19 the cause was undetermined. MacCallan exhibited a patient before the Royal Society of Medicine in London who was relieved from recurring attacks of 13 years' duration with 6/6 vision in each eye by the removal of septic teeth and the treatment of an infected antrum. Allergic reaction to pollens, feathers, and vegetables with transient episcleritis for 5 or 6 months during 10 or 12 years was described by Balyeat, and a similar case following corn husking was reported by Marbourg. Sinsky, Levin, and Sacks in 1921, and J. T. Shoemaker in 1924 reported cases due to the excessive use of carbohydrate foods, with complete relief following dietary regulation.

The justification for presenting this subject lies not in the danger to vision in an eye attacked by episcleritis, but in the great discomfort and disability incident to the disease. This may and often does extend over years with remissions and recurrences, to combat which the ophthalmologist is forced to try a great variety of local remedies, usually with but little effect. The cases from the literature and the analysis of the 25 collected by the writer give some indication of the search that must be made for the underlying etiologic factor, which if discovered and removed, results in a prompt and permanent cure, usually within a few days. It should be noted that more than one cause may be active, as illustrated by 3 of the cases reported, and this must be kept in mind when a patient does not respond to the removal of one of several foci.

A summary of the causes of episcleritis as shown in the cases reported reveals that tuberculosis, syphilis, infected teeth, tonsils or sinuses, pelvic inflammatory disease, allergic sensitivity to foods and foreign proteins, a diet too rich in carbohydrates, too high blood sugar, and dis-

orders of elimination have to be considered in the search for the etiologic factors of the disease under discussion.

2213 Walnut Street.

ABSTRACT OF DISCUSSION

CHARLES E. HEED (Philadelphia): Episcleritis seems to have been considered as of minor importance by the authors of textbooks and by those who contribute to ophthalmic literature. In the literature of the late 1890's gout, rheumatism, tuberculosis, and syphilis were stated to be the chief etiologic factors. Rheumatic affections of to-day are usually regarded as toxic manifestations secondary to focal infection. Gout of former times is of infrequent occurrence. Tuberculosis as a factor is important, but a local tuberculous lesion of the episclera must not be designated as episcleritis. When episcleritis is found in a tuberculous subject, the episcleral affection is the result of an allergic manifestation and not a lesion in which the tubercle can be demonstrated. Syphilis may be the primary factor in a small percentage of cases, but we should not be content to treat such patients with antisyphilitic therapy alone. Focal infection undoubtedly is the most logical factor, and our efforts should be directed to a thorough investigation of the teeth, the tonsils, and the accessory sinuses, disorders of digestion, chronic constipation, chronic inflammatory affections of the prostatic gland, cystitis, and affections of the uterus.

I have treated episcleritis by the usual local remedies—hot compresses, dionin, collyria, and saline preparations. A dental inspection and a general investigation by the family physician are usually advised. In the majority of cases only 1 or 2 visits were made to my office. If the affection responds promptly the patient immediately discontinues any further treatments suggested by his physician. Some weeks later a recurrence takes place, and the patient returns to my office or

seeks the advice of another ophthalmologist. It is our duty to impress upon the patient at the first visit the importance of a thorough investigation for the causative factor, and to explain the tendency to recurrence unless the regions of focal infection are persistently treated until pronounced cured by the consultant.

My most recent case was that of a robust girl, age 9. She had suffered several previous attacks during the past 2 years and had been treated by 3 different ophthalmologists. Her laryngologist stated that she had a chronic ethmoiditis but never persisted in the treatments.

It would seem as difficult to fix any one factor as the most prevalent cause of this disease as it would be to state that arthritis usually is due to infected tonsils. The better plan is to eliminate as far as possible all areas of infection, improve the elimination, investigate the usual diet of the patient, and correct any refractive error which may be present.

LEONARD G. REDDING (Scranton): In my practice I have observed that, if one patient with episcleritis comes for treatment, there will likely be several more during that same month and then there will not be any for some time. This may be coincidence. Several patients have returned about the same time each year with recurrent attacks. Episcleritis is a self-limited disease. Giving the patients plenty of aspirin seems to do as well as any other form of treatment.

DR. GRISCOM (in closing): In episcleritis we are not confronted with an injury to the deeper structures of the eye nor with ultimate impairment of visual acuity, but the very fact that this condition does recur and is disabling and stubborn emphasizes the diverse etiology back of these attacks and the necessity for careful, persistent search for the cause which, when discovered, often results in rapid recovery. If the basic etiology is not discovered, the patient is likely to have persistently recurring attacks over a great many years, as revealed in many of the cases of this disease reported in the literature.

THE PREECLAMPTIC WOMAN*†

FREDERICK B. UTLEY, M.D., PITTSBURGH

The preeclamptic woman is one who has the signs, symptoms, and laboratory data of eclampsia without the convulsions. It is estimated that 5 per cent of all the toxemias of pregnancy belong to this group or, expressed in terms of all confinements, 1 in every 71. Naturally these figures will be higher in hospital practice than in private practice. Considering that 15 per cent of all maternal deaths are caused by eclampsia, its importance in medicine assumes major proportions. This means that 2500 mothers in the United States or 60,000 in the world at large

lose their lives each year from eclampsia. It is to diminish this death rate with the attending sorrow and economic loss that there is such a widespread study of this subject to-day. As an indication of the immense amount of work being done on eclampsia it may be stated that one investigator compiled a bibliography of 685 separate articles. But even after all of this work we do not know the specific cause of eclampsia except that it is probably a toxemia.

It has been felt for some time that the large amount of clinical material at the Elizabeth Steel Magee Hospital in Pittsburgh together with its outpatient departments would offer an excellent opportunity to study this subject.

The literature is replete with theories of the etiology of eclampsia. More than a score of hypotheses have been suggested but found want-

* Read before the Section on Medicine of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 3, 1934.

† This study was made possible by a grant from the Buhl Foundation and was conducted in the Medical Department of the University of Pittsburgh at the Elizabeth Steel Magee Hospital. Thanks are due to many who collaborated in the study and care of these patients.

ing. So a new approach was undertaken, namely, the study of each woman who showed any variation from the normal pregnant state. If these women were followed through to their eclamptic state as their various symptoms, signs, and laboratory data appeared, it was hoped that some idea as to the nature and origin of the etiologic factors leading up to the sudden, explosive eclamptic state would be gained. To make this study possible, all women from the various outpatient departments who showed hypertension or toxic symptoms of any nature were referred to the so-called hypertension clinic at the Elizabeth Steel Magee Hospital. This study was started in August, 1929, and since that time 2039 cases have been examined, treated, and followed. According to the average incidence of eclampsia in hospital practice, at least 50 of these toxic and hypertension cases should have developed eclampsia, but only 3 of them did. Of these 3, 2 were seen only once in the hypertension clinic. Of these 2, 1 was admitted 2 days later and died in 36 hours; the other did not return until she was admitted to the hospital in the state of eclampsia. The third was seen 3 times in the clinic, but failed to carry out any of the suggestions made with reference to diet, rest, and the removal of diseased teeth and tonsils. In other words, eclampsia did not develop in any of the preëclamptic patients who followed all of the régime outlined to place them in as near a state of health as possible. Although we were denied a detailed study of an eclamptic, we learned some measures for reducing the incidence of eclampsia. During this same interval there were sent to the hospital for treatment by outside physicians 70 cases of eclampsia, showing that the condition was prevalent in the district during this period of study.

A cross section of the history of all the patients studied was typical of the preëclamptic, namely, headache, vertigo, visual disturbance such as amaurosis or muscae volitantes, tinnitus, paresthesia, dyspnea, anorexia, heart burn, weight in epigastrium, nausea, vomiting, constipation in varying degree, backache, dysuria and irritating vaginal discharge, edema of the feet, legs, and occasionally of the whole body. Further history revealed indiscretions in diet, both as to choice and amount, even food debauches but usually too little available protein and carbohydrate and too much fat, excesses in tea or coffee, a history of 12 to 16 cups of either daily not infrequently being elicited, exposures to wet and cold, poor home hygiene, overwork, poverty, infections which might lead to kidney or liver damage such as scarlet fever, diphtheria, pneumonia, influenza,

typhoid fever, rheumatic fever, frequent sinusitis, or tonsillitis. The importance of previously damaged organs of metabolism and excretion in the development of the preëclamptic state cannot be overlooked. Inheritance of the eclamptic tendency could not be established with sufficient regularity to regard it as a factor. There are occasional striking examples of this.

The outstanding physical finding was mouth infection, many showing extensive dental caries and periodontal infection. It was, indeed, rare to find good oral hygiene. Infected tonsils were found in a number of cases, infected sinuses in a few. The thyroids were almost always somewhat enlarged, some very large, a few with either cysts or adenomata or both, but most with simple hyperplasia. Definite symptoms of thyrotoxicosis were seen on only 3 occasions. An occasional tender gallbladder or appendix was observed.

The prominent laboratory findings were a hypertension varying from 140 to 280 systolic and 90 to 180 diastolic, an albuminuria varying from a heavy trace to a heavy cloud with white blood cells or pus cells, and casts varying from an occasional one to many.

The more seriously ill patients were sent to the hypertension ward in the hospital, where a closer study could be made. The albumin output in the urine varied from 10 to 24,640 mg. in 24 hours, the average being about 300 mg. A study of the blood showed uniformly a marked anemia of either the hypochromic or macrocytic type, the hemoglobin ranging from 26 to 80 per cent, the red blood cells from 1,900,000 to 4,000,000. The question naturally arises: Is the anemia a contributing factor in the development of the preëclamptic symptoms through the inability to carry enough oxygen and nutrition to the tissues and to carry away for elimination the katabolic toxins, or does the existing toxemia destroy the red blood cells with the resulting anemia? With the information at hand we may assume that both hypotheses exist; in other words, there is a vicious circle. Other sources of anemia are the chronic foci of infection, poor diet, inadequate dentition for mastication, nausea, vomiting, hypochlorhydria, and the growing fetus.

The blood-chemistry studies showed the uric acid increased, phosphorus increased to 3-7 mg. per 100 c.c., fatty acid increased about 50 per cent, a marked increase in globulin resulting in a reversal of the usual albumin globulin ratio. There was a considerable diminution in the carbon dioxide combining power, in one instance a reading of 33 being obtained. Urea, sugar, and calcium were below normal in many instances,

the latter being as low as 7 mg. in one instance. The liver function test showed a uniformly high dye retention, one case showing 30 and 20. Serologic involvement appeared not to be a factor, showing a somewhat lower figure than that for the normal pregnancies. The basal metabolic readings showed 3 markedly plus and 5 from a —6 to a —17. These readings assume more significance when it is understood that probably the normal reading for a woman during the latter half of pregnancy is a +17.

The eye findings varied greatly, and often were not in keeping with the symptoms. Many of the patients with marked visual disturbance had apparently normal eye grounds. It has been suggested that the cause of the symptoms in this latter group may be an edema of the visual center. The common eye findings were edema of or exudate on the retina, detached retina, retinal hemorrhages, choked disk, inflammation of the choroid, and, in those cases obviously on a renal insufficiency basis, albuminuric retinitis with more or less permanent damage.

These patients were placed on a generous well-balanced diet, rich in carbohydrate, poor in fat, and with sufficient protein to meet the needs of the maternal and fetal body and the amount of albumin secreted in the urine. Further demand for protein because of increased metabolism associated with diastolic hypertension, its storage in water retention in the presence of hypothyroidism, and its destruction in the presence of chronic foci of infection was largely reduced through the elimination of these various factors. The calcium needs were met by a minimum of 3 glasses of milk daily. Tea, coffee, and cocoa were interdicted, but plenty of water or fruitades was given to maintain good elimination. Indicated further correction of constipation was made with mineral oil and milk of magnesia. Iodine in the form of iodides was administered in most cases to assist the thyroid to handle properly the added metabolism of pregnancy. To those patients believed to have thyroid deficiency as evidenced by the physical characteristics and a minus basal metabolism rate, thyroid substance was given, and in almost every case there followed a rather marked diminution in the blood pressure, the toxic symptoms, and the edema. It may be of interest to add that in a few clinics in this country and abroad thyroid substance or its alkaloid, thyroxin, are used routinely in the treatment of eclampsia. Recently much study has been devoted to the anterior lobe of the pituitary and its relationship to the other endocrines. It is quite possible that the pituitary has much to do with the metabolism

of the body in health and disease, and therefore may have a direct bearing on the preëclamptic state.

Rest in the afternoon and long hours of sleep at night were prescribed for all. If indicated, bromides in small doses were used to assist in the rest and sleep. All proven dental infection was eradicated unless the estimated date of confinement was within 2 weeks, and all proven sinus or tonsillar infection was eradicated unless the estimated date of confinement was within 4 weeks. In no case did these operative procedures induce or hasten labor. All syphilitics (and they were few in number) were referred to the department of venerology for treatment. No other medication was given except digitalis to an occasional case of cardiac decompensation.

The above outlined procedure caused a rapid or gradual diminution of all of the noted symptoms, the blood pressures in most instances seeking lower levels in varying amounts. The hypertension noted when the patients were more or less free from symptoms was believed to be nature's effort to maintain a balanced elimination, and no measures were directed against it *per se*.

The edema diminished or disappeared entirely, suggesting that it was in part, at least, nutritional; that is, due to a protein deficiency, and in part due to a renal or endocrine deficiency. In a few cases in which the edema persisted in spite of the above measures, a restriction of the sodium chloride intake to approximately 3 gm. daily was of material benefit.

An effort was made to put these pregnant women in as nearly a healthy state as possible through the correction of all the etiologic factors demonstrated in the history, physical examination, and laboratory study, and to maintain this with suitable diet, exercise, elimination, and rest. These therapeutic measures have so far served as an effective prophylaxis against eclampsia. They have reduced as far as possible all of the toxemia except that incident to the pregnant state or, in other words, that associated with fetal elimination, and at the same time the mother's metabolism was maintained at as near a normal level as possible through the use of iodine and thyroid substance as indicated.

It is to be noted that the abnormal chemical findings were an increased uric acid, fatty acid, phosphorus, and globulin, a diminished blood urea, sugar, and calcium, a poor liver function as shown by the dye test, and a low carbon dioxide combining power. These observations are the same as those noted by most workers in this field except with reference to fatty acids and

blood sugar, which are reported by other workers as unchanged and increased respectively. It may be that the period in pregnancy and an associated starvation are factors in the different readings, as it is well known that usually the free blood sugar is increased during the first 6 months and diminished during the last 3 months. Also, it has been observed that when the carbohydrate intake is insufficient, carbohydrate is obtained from fat with the liberation of fatty acids.

The chemical studies suggest a diminished function on the part of both liver and kidneys. The liver is defective in metabolic, detoxicating, and biliary function, resulting in an acidosis, an increase in lactic acid, and an added load upon the kidneys, causing either nephrosis or nephritis. After the puerperium the function of both of these organs returns to normal or to the functional state existing at the beginning of pregnancy; consequently, the dysfunction of these organs may be a result of the toxemia of pregnancy rather than its cause.

A consideration of all factors that may contribute to the preëclampsic state is not complete without including heredity. It really antedates all other factors. By virtue of heredity the human body starts life with certain vital capacities and deficiencies, and this inheritance will play a part throughout the wear and tear of the life span. A woman with good vital resistance in all organs of her body is better able to meet the added demands of the pregnant state than one who has a poor vital inheritance.

This study of the preëclampsic state indicates that eclampsia is not due to a specific toxin but rather that it has its origin in the inheritance of deficient vital capacity and the summation of various toxins, exogenous and endogenous, infectious and metabolic, which finally become more than the organs of metabolism and elimination, namely, the liver and kidneys and at times the thyroid, can handle. Whether the convulsive seizure is due to a resulting tissue anoxemia, to calcium deficiency, to hypoglycemia secondary to carbohydrate and hepatic deficiency, or to an edema of the brain matters little. The important consideration is that the liver and kidneys are often damaged in the prepregnant period by various infections, either general or focal, so that the woman enters the pregnant state with possibly an already damaged metabolic or excretory system. These organs are further taxed by faulty habits of diet and living during pregnancy so that, as the increasing load of fetal metabolism is added, they become more and more deficient, with a resulting accumulation of

a toxic state in which an acidosis is an outstanding clinical finding. Finally, there suddenly appears the explosive eclamptic convulsion. The physiologist today looks upon a convulsion as a preparalytic or a prelethal stage, due to a depressing toxin or poison and not to a stimulation.

This study suggests that the practice of corrective medicine is the best means for preventing eclampsia. It further suggests the possibility of completely eradicating eclampsia. The responsibility for this accomplishment rests largely with the general practitioner, whose task it is to keep people in as healthy a state as possible from the prenatal period on through life.

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ABSTRACT OF DISCUSSION

P. BROOKE BLAND (Philadelphia): In a survey of maternal mortality in Philadelphia covering a 3-year period from 1930 to 1932 inclusive, it was found that 717 patients died from complications of pregnancy and labor. Of this number, 114, or 15.8 per cent, died of the terminal stage of an eclamptogenic condition. This corresponds to the mortality rate throughout the country. As a cause of death it is only exceeded by septic infection. Of the many, this is one of the chief reasons why this paper should make a compelling appeal to every practitioner of obstetrics. The adoption in a general way of the plan of prenatal management advocated by Dr. Utley would prove tremendously helpful in reducing the maternal death rate in every-day obstetric work.

Reference has been made to the enormous amount of investigation carried on in pregnancy toxemia, and mention has also been made of one writer who recorded nearly 700 articles in a bibliography. In spite of this almost ceaseless study we probably know less about so-called pregnancy toxemia than any other condition in scientific medicine. We still cling tenaciously to the assumption that the trouble is due to some subtle poison or toxin circulating in the expectant mother's blood, although no one has been able to demonstrate any substance or material having toxic properties. More than 40 years ago a statement—now found in quotation in almost every textbook of obstetrics on earth—was made by Professor Paul Zweifel of the University of Leipzig, Germany, that, "Eclampsia is a disease of theories."

Inasmuch as we have made very little progress in our understanding of the etiology and the other important factors of the toxemias, would we not be justified in paraphrasing the aphorism of Professor Zweifel by saying that pregnancy toxemia in all its gradations remains a disease of theories.

Because of lack of knowledge regarding the exciting cause of toxemia we are forced to employ empirical measures in its treatment. Fortunately, one is enabled to accomplish a great deal even in this way. Until the cause of the trouble is found and specific means provided we should rigorously follow the plan outlined by Dr. Utley. This course should be adopted for several reasons: (1) Because women treated in the prenatal state can be placed in a condition to withstand the stress of pregnancy in most instances; (2) because the so-called preëclampsic conditions are readily recognized; and (3) because the preëclampsic woman is, as a rule, responsive to preventive therapeutic measures.

LYMPHOGRANULOMA INGUINALE*

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Lymphogranuloma inguinale is an infectious venereal disease, apparently due to a filtrable virus; it is subacute in its early form, later becoming chronic. In the male it is clinically characterized by an indolent, inguinal adenitis, developing a suppurative process with multiple fistulas and scar retraction upon healing. In the female the inguinal involvement is rare; rather there is an involvement of the deep pelvic and perianal lymph glands and channels, which later results in scar formation and strictures of the rectum. This is frequently called the anorectal syndrome.

As early as 1865 Trousseau described the condition since recognized as lymphogranuloma inguinale. Two years later Schuebe applied the name climatic bubo to the same condition. In 1890 Klotz reported 120 cases of strumous bubo which he had seen in 10 years of hospital practice in New York City. He described several types of the primary lesion on the genitalia, the miliary pus foci, and expressed his astonishment that so little appeared in the literature on the subject. During the last few years of the nineteenth century Cantlie, Ruge, Skinner, Brandt, and many others wrote of the condition, believing it to be a tropical disease. Although Müller and Justi reviewed the entire subject in 1914, and many other authors (including medical officers of the United States Navy) wrote on the condition, it was Nicolas, Favre, and Durand who clarified the entire matter by a full description and correct interpretation of the histologic and clinical findings. They identified the condition as a clinical entity. In 1932 DeWolf and Van Cleve made the first careful review in the United States. In 1933 H. N. Cole, of the same clinic, in a classical description of the whole condition, reported 52 cases studied in the clinic in a year. He suggested that "with sufficient care in differential diagnosis, probably as high a proportion of these patients will be found in other clinics in this country."

It is now rather generally conceded that the causative agent is a filtrable virus, which is transferred usually during sexual intercourse. Several cases have been reported in physicians following extragenital inoculation. The most widely known of these is Hellerstrom's case. This physician contracted the infection in 1904 while operating on a patient with inguinal adenitis. The axillary nodes became involved, required

removal, and eventually healed. In 1927 the Frei test was positive on the patient. In 1930 Hellerstrom and Wasser reported the successful transmission of the disease to apes. The inoculation was made subdurally, and the ape developed a form of encephalitis. The infecting agent in these cases was a filtrable virus, which rapidly loses its virulence in glycerine, is inactivated by drying, has a special predilection for the lymphatic system in man, and is killed by heating to 60° C. W. E. Coutts advances the theory that the virus is of buccal origin and may become adapted to the vagina, and that the disease is transmitted by abnormal sexual relations. The frequency of the disease is very much lower than that of gonorrhea, syphilis, or chancroid, but the literature seems to indicate that its frequency is increasing.

After a mass of nodes has been removed surgically, they are found banded together by a dense perinodal exudation. If an involved node is sectioned in the early stage, it may show reddening only. Later, multiple areas of softening abscesses appear, and as these develop the multiple fistulas to and through the skin form. Microscopically, the process is often difficult to differentiate from tuberculosis, syphilis, or other infections of the lymph nodes. The abscesses are areas of granulomatous tissue; necrosis, epithelial cells, leukocytes, and giant cells may be found. Biopsy and necropsy reports from the rectal strictures usually show simply chronic inflammation. The incubation period is said to vary from 5 days to 4 weeks. Following is a report of one case in the primary stage.

CASE 1.—J. F. M., age 24, developed an herpetic lesion on the glans penis 21 days after exposure; 5 days later swelling developed in the inguinal region, unilaterally, accompanied by general malaise, severe pain on walking, elevation of temperature, and gradual extension of the infection along the inguinal nodes. The Frei test was positive. At this time the patient went to a private physician, who incised and drained the glands. Drainage continued for about a month, when he was discharged as cured. He has had no medical attention since. About 10 years ago the patient had a course of treatment for syphilis. At that time the Wassermann reaction was 2+.

H. N. Cole describes the various types of primary lesion as (1) an herpetic lesion which is of short duration, (2) the ulcerative lesion, (3) a nodular lesion not unlike the chancre, (4) a specific urethritis which shows no gonococci in the discharge.

In the second stage the lymph nodes draining the site of the primary lesion pass through the

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stage of swelling, abscess formation, and drainage. In the male, the primary lesion is usually about the external genitalia; hence the involved glands are the inguinal glands, and usually the involvement is unilateral. In the female, the portal of entry is supposed to be about the cervix or posterior fornix of the vagina; hence the glands involved are largely perirectal. Early in the second stage the glands are hard, slightly tender, and fixed. The infection travels from one gland to the other involving the superficial inguinal glands and then the deep iliac chain. Superficial glands gradually develop areas of softening and may become attached to the skin which takes on a violaceous hue. These areas of softening form fistulas. In the female, abscesses may form in the deep pelvic glands. These may drain spontaneously or they may require operation. They are sometimes erroneously diagnosed as pelvic inflammatory disease. It may be necessary to incise perirectal abscesses for drainage as in one case reported here. After the fire of the second stage is burned out, discharging fistulas may be left with the development of elephantiasis of the region drained by the involved lymph nodes. This is due to destruction of the lymph channels.

In cases in which there has been involvement of the deep pelvic glands, inflammation and induration spread to the rectal wall, and stricture of the rectum develops. This may be classified as the tertiary stage.

Fournier described, in 1875, the anorectal syphiloma, a condition which he thought due to syphilis in spite of the lack of other signs to corroborate this diagnosis. The syphiloma consisted of multiple perineal and rectal fistulas with narrowing and infiltration of the rectal wall. He observed that the condition was more frequently found in the female and was highly resistant to all treatment. Jersold doubted the syphilitic nature of these lesions because in several cases of syphiloma, syphilis developed later when reinfection was doubtful. It is now generally conceded that Fournier's so-called anorectal syphiloma was caused by inflammation of the lymph channels and nodes and infiltration of perirectal tissue. This inflammation results in scar formation and narrowing of the rectal lumen. The strictures may be band-like or tubular in character. This type of lesion rarely develops in the male because of the variation in the lymphatic drainage. Seneque, quoted by Cole, sums up the rectal condition under 4 headings: (1) Stricture limited to the rectum, (2) rectal strictures with elephantiasis of the external parts, (3) rectal stricture with fistula,

(4) rectal strictures with pelvic cellulitis. The most frequent causes of inguinal adenitis are reactions associated with chancroids and syphilis. The chancroidal adenitis usually has one central area of necrosis, while that of lymphogranuloma inguinale in the typical case has multiple areas of softening. In syphilis the nodes are sharply defined, hard, and painless. They do not break down unless there are complications. Usually a primary lesion will be present and the Wassermann test will be helpful. Granuloma inguinale need not be considered in the differential diagnosis, because it is definitely a disease of the skin and not of the lymphatic system. At times it may be necessary to rule out malignant growths, pyogenic infection, Hodgkin's disease, tuberculosis, and tularemia.

In 1925 Wilhelm Frei reported a specific test. After the antigen has been properly prepared, .5 of a c.c. is injected intradermally. The reaction is to be read in 48 to 72 hours. If it is positive a red papule is present. If the first test is negative, it should be repeated. It is thought that the positive state persists throughout life. Hellerstrom's case was positive after 23 years; Cole cites a case positive 30 years after the disease. It is important to remember that early cases may give a positive 2+ or 3+ Wassermann reaction. A positive diagnosis is established by obtaining a true reaction with the Frei antigen.

Various authors report many forms of treatment, none of which seem satisfactory. The antigen has been used with some reported success. Hoffman speaks highly of tartar emetic in increasing doses. In the 5 cases seen by me drainage was used in the bubos. Fuadin was used in the 3 cases of rectal stricture. Two of the cases which were surgical problems showed no response. In the other case, although the stricture was not influenced, the drainage from the anal fistula was controlled.

In the Harrisburg Hospital 5 cases have been observed in the past year which have been diagnosed lymphogranuloma inguinale. Following is a brief report of 4 of these cases.

CASE 2.—T. G., Negro, age 32, resident of Washington, D. C., was admitted to the service of Dr. Carson Coover with a bubo of the right inguinal region. The Wassermann reaction was negative, and the Frei test was positive. The pus recovered from this abscess was sent to Dr. Harold N. Cole, Cleveland, Ohio, who confirmed the diagnosis of lymphogranuloma inguinale. Treatment consisted of incision and drainage, which continued for one month, when the patient was discharged from the hospital.

CASE 3.—M. M., Negress, age 44, native of Virginia, was admitted to the service of Dr. Carson Coover for ischiorectal abscess and stricture of the rectum. The treatment consisted of incision and drainage followed

by 2 courses of fuadin. The drainage continued for about 3 months. The Wassermann test was negative and the Frei test was positive. The fuadin seemed to have a beneficial effect on the drainage. The stricture was not modified.

CASE 4.—L. P., Negress, was admitted to the service of Dr. W. Minster Kunkel in 1931 complaining of constipation and bleeding from the rectum. A diagnosis of inflammatory stricture of the rectum was made. The biopsy specimen was reported as old fibrosis of the rectum with chronic inflammation. A colostomy was done. She was readmitted in 1933, and in 1934, during which year she died. The Wassermann test was negative on several occasions, and the Frei test was positive on her last admission.

CASE 5.—C. M., Negress, native of Georgia, age 38, was admitted to the Harrisburg Hospital in September, 1933, with a complaint of "piles," a severe watery diarrhea, and blood in the stools. Six or 7 years previously she had been operated upon in a hospital in Ohio for pelvic disease. In 1931 she was in a sanatorium in West Virginia for 7 months. The diagnosis made there was "tuberculosis of the stomach," according to the patient's statement. Following this hospitalization the patient had 5 dilatations of the rectum because of stricture, without relief. The personal history was unimportant. Her father died at age 30 of tuberculosis. The mother was living but had a "bad cough due to bronchial trouble." The physical examination showed a thin, undernourished, adult Negress. The teeth were in poor condition, and there was marked enlargement of the cervical glands. The lungs showed some alteration of the breath sounds on the right side below the scapula, and there was slight dullness on percussion. The heart was normal. The abdomen was soft and relaxed with tenderness over both lower quadrants but no palpable masses. The inguinal nodes were noticeably large and there were several condylomatous masses about the rectum and polypoid growths within the anus. There was slight elevation of the temperature and increased pulse rate. The Wassermann reaction was negative; the Frei test, positive. No tuberculosis was found in the rectal discharge. The red blood cell count was 2,900,000; hemoglobin, 35 per cent. The urinalysis showed a slight trace of albumin, many red blood cells, and many pus cells.

Under anesthesia the rectum would not admit the index finger. The lesion appeared to begin 2 cm. above the anus and extended upward 10 to 12 cm. Biopsy from the anal and rectal tissue was reported as showing dense fibrous tissue with cutaneous infiltration, numerous foci of plasma cells, and some hyperplasia of the epidermis. There was no evidence of malignancy or tuberculosis. The mass from within the anus was ulcerated, infected granulomatous tissue. A roentgenogram of the lungs showed slight infiltration of the middle and lower thirds of the right lung, suggesting tuberculosis to the radiologist. A diagnosis of lymphogranuloma inguinale was made. Because of intestinal obstruction, it was deemed advisable to operate. When the abdomen was opened, the surgeon found a large mass in the pelvis. The mass included the transverse colon as well as several feet of the small bowel bound together by dense adhesions. When this mass was freed, 3 spontaneous openings were found in the ileum. Resection with lateral anastomosis was done. Following the operation the patient was treated for peritonitis. She died on the tenth day.

Pathologic study of the surgical specimen showed

marked hypertrophy of the mucosa, and in places the crypts were greatly enlarged. Within the muscle were large areas densely infiltrated with small round cells, plasma cells, and polymorphonuclear leukocytes. There was no evidence of malignancy. Peritonitis and lobar pneumonia were thought to have been the immediate cause of death. The final diagnosis was generalized lymphogranuloma inguinale.

SUMMARY

1. Five cases of lymphogranuloma inguinale are reported, representing a primary, a secondary, and a tertiary stage of the disease.

2. The disease is by no means rare in temperate climates. It is recognized more frequently now than formerly. The specific test developed by Frei is partially responsible for this.

3. The treatment, particularly in the female and after scar formation, is unsatisfactory.

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ABSTRACT OF DISCUSSION

JOHN OENSLAGER, JR. (Harrisburg): Dr. Grossman raised the question as to the increase in this disease. We have had it with us always, but did not recognize it. It is not so much that the disease is increasing as it is the fact that we now have the machinery with which to recognize the disease. The journals have been bringing together all the various signs which have been missed and we are able to recognize the disease. The Frei test is certainly a great help. I do not think that we have any remedies. Tartar emetic salts have been tried to a very great degree in this and other conditions, especially chancroid. There were good results in a few of these cases, but in the rest the results were uncertain.

HARRY E. BACON (Philadelphia): This paper is especially interesting from a proctologic point of view, because we have a large number of these cases at the Graduate Hospital in Philadelphia. In 94 cases presenting rectal stricture during the past 4 or 5 years, it has been interesting to note that approximately 46 per cent of these cases had positive Wassermann reactions. As far as our experience is concerned, this disease is found almost entirely in the Negro. We have some male patients with rectal strictures, but most of them are referred from the genito-urinary department of the Graduate Hospital, which sends its cases to us to obtain the pus. This is heated on a water bottle for 2 hours the first day at 60° C., and for 1 hour the second day at 60° C. After sterility tests are made, the material is placed in sterile ampules.

These bubos have been cured by intravenous medication with this antigen, beginning with one-tenth of a c.c., and increasing it up to 1 c.c., given twice weekly. We selected 40 cases, divided them into 2 groups, 20 in each, and gave as many as 40 injections of tartar emetic salts to the members of one group and fuadin to the other group, but have not observed any results either in the female or male cases.

GEORGE A. HOLLIDAY (Pittsburgh): The history of the recognition of this disease is very striking. Climatic bubo has been recognized as a tropical disease for more than 75 years, but nothing was ever learned about its etiology. When, in 1913, lymphogranuloma was described, it was considered an entirely different disease;

but, upon the introduction of Frei's antigen in 1925, it was discovered that cases of climatic bubo gave a positive test. Consequently, these 2 diseases were linked together. While climatic bubo was seen almost entirely in the male, the other disease was seen most commonly in the female. Now it can be conclusively proved that the two are one and the same disease.

In reference to inflammatory stricture of the rectum, which is so common in women but also seen in men, they were at a loss years ago to find any cause for it. The condition was not due to an operation; it was not due to old syphilitic scars or ulcers. The narrowing of the canal happens because it is encroached upon from the outside. It is not only an adenitis but a periadenitis which involves all the subcutaneous and areolar tissues, and the ultimate result is a fibrosis which produces the stricture in the rectum. In women there is the same involvement about the uterus and vagina.

As to the Wassermann reaction and the effect of anti-syphilitic treatment, we have in our care at the present time a man who has an inflammatory stricture of the rectum. He has not had syphilis, but shows a 2+ or a 3+ Wassermann reaction. Antisyphilitic treatment has had absolutely no influence. Furthermore, the latest drug, fuadin, has been tried, and immediately following the first course (quite a number of injections) he had a marked increase in his symptoms and extension of the

disease. Following the second course he was no better. This man will have to be operated upon and given an artificial anus because he is in such a miserable condition.

Another drug that has been mentioned by some is sodium salicylate. In a woman with inflammatory stricture and marked elephantiasis we have obtained very marked improvement in her condition by giving 6 gm. of sodium salicylate a day. Of course, it upset her digestion and the treatment had to be discontinued for a while, but when the treatment was resumed the symptoms were very markedly ameliorated.

In the intradermal test there may not be a positive Frei reaction until the glands and periglandular tissues are much infiltrated or attached to the skin. It is very similar to the Wassermann reaction when there is a primary lesion and very slight adenitis. Other cases will be seen in which the adenitis is very marked early, and in those cases there will usually be within 2 weeks or so a strongly positive Wassermann. In those with the slight adenitis the positive Wassermann develops later. In a case of suspected adenitis in which there is no primary sore to inspect and a negative Frei test, an antigen can be made from the patient and tried upon a known case of lymphogranuloma inguinale. If there is a positive reaction, there is conclusive proof that the patient in question is suffering from the disease.

ETIOLOGY AND TREATMENT OF ACNE VULGARIS*

End Results in 169 Cases

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Acne vulgaris is a chronic inflammatory disorder of the skin involving chiefly the pilosebaceous structures and characterized by comedones, papules, pustules, nodules, cysts, and associated, as a rule, with an oily skin.

It is one of the commonest skin eruptions and one about which erroneous impressions prevail. Acne occurs most frequently between the ages of 12 and 30, but is usually worse at puberty and adolescence, when all the glands of the body are hyperactive. During adolescence the entire system is effected by changes which are brought about by the increased activity of the endocrine system.

As a result of beginning gonad action, there is a change in certain physical characteristics in both male and female. The appendages of the skin play an important part under this new régime as they are awakened from their quiescent stage. This is demonstrated by the appearance of pubic and axillary hair. A stimulus so powerful as to actuate these hair follicles may have the same stimulating effect on sebaceous and pilosebaceous glands. Should this new endocrine

change be gradual and should this new stimulus be slow, the ducts of the sebaceous glands can carry off the increased amount of secretion, but if time for the adjustment is not given, the ducts cannot conveniently perform their function and stagnation results.

Both the quantity and quality of the sebum may be affected. At times, the sebum may be concentrated and thick, so that it does not gain access to the surface, or it may be so plentiful that the entire skin is bathed in oil. It gradually accumulates within the follicular orifices, together with numbers of exfoliated epithelial cells. As a result, cheesy plugs eventually form and block the openings. The external end of the plug becomes dry and discolored from dirt and oxidation, and is called a blackhead or comedo. The blackhead grows larger and presses upon the adjacent cells, interfering with their nutrition and resistance to infection, and acting similar to any other foreign body.

In 1893, Unna described a microbacillus which he found in the sebaceous follicles and comedones. He called it acne bacillus. Since that time, others have found a similar organism. In addition to this organism, *Staphylococcus albus* and *aureus* have been found. As the resistance

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of the perifollicular cells is lowered by the foreign body, these micro-organisms produce papules and pustules with the formation of abscesses, indurations, and nodules.

In the majority of cases, acne is a local disease, but it may be aggravated by several factors, namely, gastro-intestinal disturbances, constipation, the presence of focal infections, and the ingestion of an excess of carbohydrates derived from sweets and starchy foods. Chlorosis and anemia may also be factors in cases before puberty. Several of these conditions will be discussed later.

Acne is a condition about which erroneous impressions prevail. This is particularly true with regard to its treatment. Some parents believe that it is connected with repression of the sexual function and, in some cases, have gone so far as to suggest sexual satisfaction. A popular fallacy is that masturbation is a cause of acne. If that were the case, there would certainly be more acne than there is at the present time. Other parents are told by physicians that it is an insignificant trouble which may disappear spontaneously. Such may be the case, but often with disfiguring scars. This aspect is often lost sight of, and many a girl or boy is marred for life by neglect of early and proper treatment. Scars result from destruction of tissue in and about the pilosebaceous follicles, and not from the therapeutic methods employed. In very young adolescents it is wise to wait about 6 months to a year before instituting any active treatment. Sometimes acne disappears after marriage. Certain measures may be outlined which may eradicate or at least hold the eruption in a quiescent stage.

Any associated focal infection which may be present should be removed before local treatment is instituted.

It is well to eliminate starchy foods, sweets, and fats from the diet. A few dermatologists consider that diet has very little to do with the progress of the disease, but it is a good routine measure to adopt.

As constipation is a frequent accompaniment, particularly in women, the bowels should be carefully regulated and laxatives employed if necessary.

Vaccine therapy is occasionally of benefit, autogenous preparations being preferable to stock vaccines. They are most useful in cases of pustular acne. The use of vaccines is disappointing; their action is slow and often only temporary. My experience with the use of vaccines is limited and the results are disappointing.

If acne is considered to be a constitutional dis-

ease, and treated as such, it is seldom cured, and only after the destruction of the involved glands. Little progress, therefore, can be made in treating acne by paying attention to diet, the state of the bowels, or remedies directed to a theoretical blood condition. If acne is looked upon primarily as a local infectious process, it can more readily be cured.

Attention must be paid to the correction of bad habits and the institution of good hygienic measures. The affected parts must be frequently washed with soap and water. In this way the orifices of the sebaceous glands are opened and the remedies applied may penetrate more readily. On many occasions there is an associated oily seborrhea of the scalp, and the acne is particularly resistant to treatment unless the scalp is also treated. Superficial pustules and deeper abscesses should be carefully opened and the contents expressed. All comedones should be expressed by a suitable instrument devised for that purpose.

A well-known preparation called *lotio alba* may then be prescribed. This lotion is composed of a saturated solution of zinc sulphate and potassium sulphuret, to which may be added glycerin and rose water. The *lotio alba* ordinarily prescribed is weak, but may be strengthened by increasing the amounts of the ingredients. It is antiseptic, keratolytic, and astringent, and has a tendency to make the skin harsh and rough. Should this happen, the lotion may then be discontinued for a few days.

When any or all of these methods fail, there is still another form of treatment which is very effective—roentgen-ray therapy. Those who have had personal experience with the effect of roentgen therapy in *acne vulgaris* are practically unanimous in giving it first place in the treatment of patients with this disease. Some physicians reserve it for certain types of acne or for those which do not respond to other measures, but many use it as a routine, which is my procedure. The method advocated by Dr. George M. MacKee is used by practically all the American dermatologists.

ROUTINE OF TREATMENT

A card on which is printed a list of foods from which they must abstain is given to all patients. The bowels must move freely at least once a day. An attempt is made to correct menstrual disorders. Any focal infections are eliminated. Local applications to the affected areas are not permitted while the patient is under roentgen-ray treatment.

The roentgen-ray treatment consists of one-quarter skin unit, unfiltered, once a week. The factors used in producing this amount of roentgen ray are 3 milliamperes, 100 kilovolts, 8-inch target distance, and 30 seconds time. A broad focus Coolidge tube is employed in each case. The roentgen-ray equipment is calibrated and checked twice a year. The instructions of MacKee are implicitly followed in all other details. MacKee suggests a course of 16 treatments; in my series of cases the number of treatments was limited in any one course from 10 to 12. During the course of treatment the patient is instructed not to use cold creams or other greasy preparations on the skin.

PERSONAL AND GENERAL FINDINGS

During the past 7 years, from May, 1926, to May, 1933, 224 patients with acne vulgaris received treatment by me, and a year was allowed to elapse before making an attempt to record the end results. Of the 224 patients, contacts were established with 169 either by phone, mail, or personal interview.

Of these, 126 were females and 43 were males. Nineteen were married, and 150 were single.

The ages at which the disease first made its appearance were divided into 4 stages, namely, the preadolescent up to age 14, the adolescent from age 14 to 20, those between ages 20 and 30, and those over age 30. There were 21 patients in the preadolescent stage, 106 in the adolescent, 39 between ages 20 and 30, and only 3 patients over age 30.

The patients were not classified as to the type of lesions present, but according to their cosmetic appearance.

Those cases were considered *mild* which presented an oily skin, small numbers of comedones, and an occasional papule or pustule. Of these, there were 37.

Moderately severe cases presented an oily skin, large numbers of papules and pustules, and occasional pitted scars. Of these, there were 85.

The *severe* cases presented an oily skin, diffuse numbers of papules, large pustules, nodules, and many pitted scars. Of these, there were 47.

Before instituting treatment, 2 important factors were noted: (1) the presence of hypertrichosis; (2) the presence of scars.

Two patients claimed that hypertrichosis had developed as a result of treatment. In one case, I had made careful note and recorded the fact that hypertrichosis had been present before the institution of treatment, and was able to point this out to the patient. In the other case, there were other members of the family who were

similarly afflicted, and I did not attribute the growth to roentgen-ray exposure.

The second factor, namely, scarring, was very important and was one of the chief objections of both patient and family physician to roentgen-ray therapy. A detailed examination and description of every case of acne should be made and recorded. It may even be wise to point this out clearly to the patient to avoid false accusations of scarring after the termination of treatment. In no case was any scarring observed as a result of roentgen-ray treatment.

Henry D. Niles treated a series of 40 cases of acne in which he gave roentgen-ray treatment to one side of the face and a placebo treatment to the other. In 32 cases the scars were equal on both sides, more pronounced on the untreated side in 5, and greater on the treated side in 3. He concluded that roentgen ray did not produce scarring in the treatment of acne. He also noted that there was no difference in the amount of hair on the treated and untreated sides.

In the following table the terms "cured," "greatly improved," and "relapse" are used to describe the cosmetic end results, according to the description of these terms outlined by Jeffery C. Michael. Cured cases are those in which no new lesions or not more than 1 or 2 occur at any one time after the cessation of treatment. In these cases, the patients are invariably satisfied and know that they are cured. By "greatly improved" is meant those cases in which a few lesions occasionally appear, but not in sufficient numbers to be unsightly. These patients realize that there is considerable improvement and readily admit it. The term "relapse" refers to those cases with a definite return of the condition, which may or may not be as severe as the original condition. The patients are aware of the fact that there may be some improvement but are dissatisfied with the cosmetic result.

In the 169 cases treated, the following was noted:

1. There were 141 patients who received only one course of treatment with an average of 10 treatments per course.

2. There were 24 patients who received 2 courses of treatment with an average of 18 treatments for both courses. No patient was given a second course of treatment unless at least 6 months had elapsed since the previous treatment. In addition, all patients were examined for the presence of erythema, pigmentation, telangiectasia, or any other sequelae which might follow roentgen therapy. The time interval varied between 6 and 18 months with an average of 10 months.

TABLE I

Number of courses	Patients	Cured	Improved	Relapsed	Disposal of relapses
1	141	88	43	38	14 patients with relapse did not return
2	24	7	9	8	4 patients with relapse did not return
3	4	1	1	2	2
Total	169	96	53		20

3. There were 4 patients who received 3 courses of treatment with an average of 26 treatments for the 3 courses. In these cases, at least a year was allowed to lapse between the second and third courses. Since the total number of treatments in any 2 courses did not exceed 20 treatments, and since at least 6 months elapsed between the first and second courses, it was considered safe to proceed with a third course. No case was given a third course that showed any untoward symptoms of previous roentgen-ray therapy.

4. The final results showed 96, or 57 per cent, were cured; 53, or 31 per cent, were greatly improved; and 20, or 12 per cent, had relapses. Successful results were accomplished in 149, or 88 per cent, of the cases.

RELAPSES

After the first course of treatment there were 38 recurrences. Of this number, only 24 returned for further treatment. Fourteen did not return but had definite relapses. Of the 24 who received a second course, 4 with definite relapses did not return and 4 reported back for further treatment. Of the 4 patients who received a third course of treatment, there were 2 relapses. The total relapses include the 14 patients who did not return for further treatment following the first course, the 4 patients who did not return following the second course, and the 2 relapses following 3 courses, or a total of 20. Perhaps the number of failures may have been less than 20 had more of the patients with relapses returned for further treatment.

Age—Thirteen of the relapses occurred in patients below age 20; 7 in patients between ages 20 and 30; and none in patients over age 30. This is important from a prognostic standpoint as patients invariably ask concerning the probabilities of cure. I think it can be safely said that the younger the patient, the greater the probability of relapse, and the older the patient, the less the probability of relapse.

Sex—Eight, or 40 per cent, of the relapses occurred in males, although they constituted only 25 per cent of the original number treated. It would seem, therefore, that there was a greater

relapse among the male patients. Checking of the patients by sex and age, however, accounted for the difference, since 6 of the 8 males were below age 20. Sex evidently has no effect on the result of treatment.

Diet—During the course of treatment, a careful check was made as to whether the patients were following the prescribed diet. Many patients admitted that they ate everything they desired and totally disregarded the diet. At first glance, it appeared that the influence of diet had little or no significance on the result of treatment. When a detailed study was made of the relapses, however, it was found that quite a few of the patients had not followed the prescribed diet and admitted that they were considerably improved when they did.

Marriage—Only 2, or 10 per cent, of the patients having relapses were married. This compared with 19 or approximately 9 per cent of marriages in the original group. The response to treatment was not more favorable in married than in unmarried patients.

Miscellaneous—Several other facts were brought out in the course of treatment. Some patients responded to treatment very quickly and it seemed that such cases had a better prognosis. The more severe the case, the better the end result. The mild cases were the most difficult to cure and these patients were always the most difficult to satisfy.

SUMMARY

1. The etiology and general treatment of acne vulgaris is presented.

2. In a series of 169 patients treated by roentgen ray and other routine measures, final success was attained in 149, or 88 per cent of the cases. Relapse occurred in 20, or 12 per cent of the cases.

3. No permanent untoward effects from the roentgen ray were observed.

4. Detailed history and search into the records of the relapsed cases show that age plays an important part and sex plays little or no part.

5. Diet seemed to be of little significance in a general review of the entire group, but failure

to follow same was in part responsible for several relapses.

6. The quicker the response to treatment, the better the result.

7. The very mild cases presented the most difficulty in effecting a cure.

3401 Fifth Avenue.

ABSTRACT OF DISCUSSION

PATRICIA H. DRANT (Philadelphia): Acne is treated by the druggist, the beautician, the cook, and the general practitioner, and in most cases only the most intractable and severe cases are referred to the dermatologist. Between 80 and 90 per cent of these patients respond to the roentgen ray; this is particularly true of the more indolent type of the disease. There is a certain percentage which is not cured by the roentgen ray and which calls for therapeutic ingenuity to the nth degree.

The cold quartz lamp has given splendid and lasting results in the treatment of chronic acne. The rays from the cold quartz lamp vary from 1800 to 2000 m. and arise from that part of the spectrum which is specifically germicidal. The cold quartz is of decided value in 2 types of cases: (1) In young girls of fine, delicately textured blonde skin in which comedones and small tight papules are predominant, and (2) in a group, usually blondes, in which scarring is the predominant symptom. These patients have frequently been improved by roentgen rays but have not been entirely cured. The cold quartz applied with the applicator causes a mild erythema followed by a furfuraceous desquamation.

Recently, I have been employing, particularly in young men with cystic, boggy, indolently inflammatory nodular or canalized lesions and in cases with a predominance of pustular lesions, 10 c.c. hydrochloric acid 1:1000 intravenously with definitely good results. Roentgen ray has been used in conjunction with this procedure. Hydrochloric acid brings about an increased phagocytic activity and exerts an influence on the acid-base balance of the blood stream. Ten injections at intervals of 3 days are sufficient to produce the required result.

Acne surgery should be limited to a few selected cases only, as the squeezing and traumatizing of the tissues does more harm than good.

For the disfiguring purplish, semisoft fibrotic nodules that linger for months without undergoing any noticeable involution, negative galvanism with the electrode saturated with normal saline solution applied for 10 minutes is a very effective method of promoting their absorption.

The patient often can speed up the good results by the application of hot boric acid compresses for an hour each day; this is especially indicated in the cystic indurated lesions under the chin which are so difficult to treat with the roentgen ray.

The Alpine lamp has not given any permanent results; however, it gives systemic benefit in patients of lowered resistance.

It is important to treat the scalp in all cases of acne because acne patients have an associated seborrheic dermatitis. An ointment or a lotion is ordered, depending on the type as well as the degree of involvement of the scalp, and regular and frequent shampoos, for which a buffered neutral tincture of green soap is preferred.

The care of the skin at night (the patient's home

work) is of the utmost importance no matter what form of treatment is being given. Areas of acne should be washed with soap and water and not cleaned with some greasy cream. Any kind of grease, be it animal, vegetable, or a petroleum product, has a deleterious effect in acne; therefore, prescribe a soft cream-like soap, non-irritating, slightly acid in reaction.

After this soap is thoroughly applied, it should be washed off with warm water followed with a short application of ice.

If the skin becomes irritated or too dry and has that stretched roughened appearance, bran bags should be used instead of soap.

There are many face powders that exert an injurious effect on an already sick skin, particularly those sticky cold-cream base powders. A medicated powder containing a small amount of sulphur is preferable. A good chemist can prepare this in the shade the patient desires.

In the 1933 Year Book on Dermatology and Syphilology the use of enteric coated sodium chloride pills is advocated on the hypothesis that an appreciable percentage of bromide particularly and iodide and perhaps the other halogens were assimilated in the body from foodstuff, especially bread and certain green vegetables. I have used these tablets in a number of cases, and the patients with the pustular type of acne have been benefited.

In acne patients suffering with an associated dysmenorrhea or amenorrhea the hypodermatic use of amniotin is beneficial.

The general practitioner should be brought to realize the significance of acne—that it is a scarring disease. It is true that it is not a fatal disease and also that it may run its course and disappear without any treatment, but all too frequently it leaves a young lady or young man with a more or less disfigured face and a well-developed inferiority complex that could have been avoided in all but a very few cases.

HOWARD FOX (New York City): Acne scars are due to the disease itself and not to treatment by roentgen rays. It is natural that scars should follow deep-seated pustular lesions which cause destruction of tissue. It is important to explain to patients who are about to be treated by the roentgen ray that there may be some scarring due to the disease itself. Otherwise they are very apt to claim that the scars resulted from the treatment.

Although vaccines are unquestionably of value in Staphylococcus aureus infections such as furunculosis, they are almost worthless in acne. In an occasional case of pustular acne they may be of slight assistance. In studying the comparative effects of roentgen rays and vaccines in the treatment of acne, I had occasion some years ago to communicate with many of my dermatologic colleagues. Their opinion on this question in general coincided with mine.

DR. AMSHEL (in closing): In these cases of acne vulgaris the patient is sometimes taking iodized salt. It is well to inquire from every patient who has acne whether or not he is taking iodized salt. If he is, he should be instructed to use ordinary table salt and not iodized, because that sometimes increases the amount of pustules in the condition.

If bread is the so-called staff of life, milk is the ground we walk on because it is such a complete food and the foundation for the adequate diet.—(*Household Nutrition*) *Certified Milk*, Feb., 1932.

THE PUBLIC HEALTH IN A JUST WORLD

It is interesting to speculate upon the degree of improvement in the public health that would flow as a natural result from just social conditions. We have accomplished medical wonders, it is true, in a badly ordered world; but under a régime of social justice results would be vastly finer.

The proponents of compulsory health insurance point to the inability of the individual citizen to budget medical costs; only by distribution of the costs over large groups can they be met. The proponents think that an arrangement is possible whereby the mass of the people can be given adequate medical care by a redistribution of medical service and that this set-up can be successfully financed.

But consider the implications in this point of view. The people are so poor that they cannot deal in a normal fashion with the medical profession. What kind of a state is society in when it has to make such arrangements, and how can it be argued that the arrangements whereby the adjustment is made to such a fundamentally unhealthy state of affairs will produce wholesome results with respect to either recipients or donors?

The appointment of Galen as physician to the Roman gladiators in no wise altered the vicious and bloody set-up of that day. Galen's ministrations could not have ennobled him or the victims of the social régime who were his patients. So we of to-day, in so far as we facilitate and sponsor measures that represent only wretched adjustments to a sickly set-up, cannot improve our own or our patients' condition.

We must take care not to lose sight of the altar fires in the temple of medicine whether faced by unchastened capitalism, communism, or fascism, all, in the words of Secretary Wallace, of a piece—materialistic and godless, and all ready to use the doctor in their own ways and to their own ends.

How, asks Dr. James E. Bryan, executive secretary of the Medical Society of the County of Westchester, New York, can the socialization of medicine give people more to eat? How can it cause a rise in wages so that parents can buy food for undernourished children and call in the doctor of their choice when they need medical service? How can it change the present price-for-article system of private production and distribution of commodities which keeps the income of the masses too low to meet the cost of proper nutrition, housing, clothing, transportation, lighting, and fuel?

Under an abundance economy, and with the principles of social justice applied, which means a more even distribution of buying power, every American family would be supplied by industry with a "health and decency budget." So say the experts of the National Survey of Potential Product Capacity, financed by CWA and FERA funds (*The Chart of Plenty*, by Harold Loeb, Viking Press). In 1929 the incomes of about 20,000,000 families were less than \$2000 a year. In 1932 the number of such families was about 35,000,000. There are about 37,000,000 families in this country. About "42 per cent of our people existed on a level below the standard of health and decency, and another large percentage were able to enjoy only the elementary comforts." How can those opposed to the perpetuation and palliation of such conditions regard with patience the proposal to gear medicine to them through compulsory health insurance—to redistribute, not wealth, but the medical profession?

In so far as we fail to understand and adhere to the principles of social justice just so far will we tend to become sensitized to the sophistries of socialization and so postpone the attainment of an optimum state of the public health.—Editorial, *Medical Times*, April, 1935.

GOVERNOR SIGNS MOTOR CODE CHANGES

Important Changes in Headlighting and Braking Requirements Now in Effect

Signing of House Bill 2583 in July by Governor Earle makes the following changes in the Motor Code now effective:

Motorists who lose their Certificate of Title proving vehicle ownership will be required to pay \$1 instead of 50 cents for duplicates.

Boroughs, incorporated towns, and townships now are permitted to use flashing red signals which have the same designation as a STOP sign requiring the motorist to come to a full stop before crossing in the face of a flashing light. They were formerly only permitted in the cities.

To protect car buyers who found themselves in trouble because the finance company had failed to deliver a satisfied Certificate of Title upon completion of payments, Section 203 now provides a fine of \$10 for failure to deliver upon demand a satisfied Certificate of Title, with a \$25 fine for second offense.

Men in the service of the Pennsylvania National Guard are now exempt from operator's license under the Act when operating an official car.

Headlight requirements are changed on the basis that increased speed at which motorists are driving demands a greater view of the highway, and lighting equipment now must reveal objects for a distance of at least 350 feet ahead instead of 200 feet.

Vehicles parked on highways or upon the shoulder adjacent thereto, whether attended or unattended, must have lights lit or carry a white or green light on the left side of the motor vehicle, visible for a distance of 500 feet. Lighted headlamps on parked vehicles must be depressed or dimmed.

Bicycles must now be equipped with lighted lamps on the front visible from a distance of 500 feet and a red light or reflector visible for the same distance.

Stopping requirements for brakes are tightened up, the Code now requiring that service brakes shall stop a motor vehicle or combination of vehicles going at a speed of 20 miles per hour within 30 feet, the emergency brake stopping the car at the same speed within 50 feet. The former requirements were 50 feet and 75 feet respectively.

Automobiles now are required to pass school buses in the same manner as passing street cars, at a speed no greater than 10 miles per hour when the school bus has stopped to take on or discharge passengers.

Vehicles carrying flammable liquids as part of cargo are added to others which must stop at all grade crossings.

Local authorities now may designate any highway or any part of a highway as a "play highway," and may close it to general traffic, installing signs designating hours when it is closed.

Important regulations which go into effect next Jan. 1 affect headlighting and trucks. After that date multiple beam headlights on passenger cars will be permissible, a fine of \$10 being set up for motorists convicted of failure to depress the beams on the open road when approaching within 500 feet of another car.

On Jan. 1 the requirements are changed for trucks carrying Caution or Danger signals. The new requirements allow electric flashing signals, electric lanterns, or other types of signals in addition to the fusee type. Trucks are required to use these danger signals when they are disabled on the highway or stopped on a curve or portion of the road where they constitute a menace to traffic.—*The Car*, Aug., 1935.

EDITORIALS

HARRISBURG 1935 CONVENTION

This is a mid-summer reminder that the next annual session of The Medical Society of the State of Pennsylvania will be held in the Capital of the State, Harrisburg, on the banks of the Susquehanna River, September 30 to October 3.

The host will be the Dauphin County Medical Society.

While our members are arranging for their summer's vacation, they are urgently requested to consider vacation plans which will include arrangements for attendance at the convention. Hotel reservations should be made early, as a large attendance is anticipated. Some of the hotels in Harrisburg are booked to capacity for the period of the convention. Those who have not secured hotel reservations should communicate immediately with Dr. Clarence R. Phillips, 924 N. Third St., Harrisburg.

Plans are completed for conducting all the activities of the convention under one roof—the Farm Show Building. This will be the first time the society will meet in this building.

The Woman's Auxiliary to the Dauphin County Medical Society is devoting meticulous care to planning for the entertainment of the visiting ladies.

WHAT PRICE LIVING

It is well not to consider the price, for after all what price is too great for the joy and happiness of living. On the other hand, as one views the matter in an impersonal way, he learns incidentally the great price that human beings pay just to live. No one is more familiar with the price and the returns than the doctor of medicine.

Strife and struggle have characterized all living creatures. Man differs somewhat from the others of the animal kingdom, inasmuch as he is not destroyed in the carnal sense by some one his superior. Yet, in the beginning, it was a survival of the fittest, and the cave man did not regard the price too great. Wars of pestilence failed to make him quit the game of living. When we as physicians see beings in poverty and disease, we too are conscious that no price is too great in the way of labor, disappointments, sufferings, and sorrow, but what human beings gladly pay the price for one more day, one more week.

Many years ago in the tuberculosis wards of Blockley, the cancer wards, the nervous wards, the homes for the indigent, there were found, amidst all kinds of distress and poverty, that desire to live regardless of the price in suffering and impending death. Generally speaking, in the mental wards life or death was a matter of indifference. The retreat from reality was already complete.

During the depression, men and women, through no fault of their own humbled to the last degree, suffered the pangs of hell, and why? Just to live! How fortunate it is that this desire to live overcomes the desire to die (which Freud tells us is in every individual), for life must go on.

The price is great, but how content we are for only a small return. Even anticipation is a reward. Those who have looked into the eyes of the suffering generally find this true. In the sparkling eye of the tuberculous one grasps the vision that out there it's beautiful and he'll be back again. We marvel at the gasping cardiac as he pulls through the night for the to-morrow that brings a beautiful dawn, the singing birds, a kindly greeting; at the asthmatic who lives for to-morrow which brings again the pleasant air and bracing weather; at the postoperative patient who clings fast because the surgeon tells him in a few days things will be all right. Only those in the throes of profound depression see but the night ahead; yet, relatively few, although many are potential, commit suicide. They too pay a tremendous price to live; only we physicians know that price. We, also, know that the returns will be few.

'Tis well 'tis so, for with pretty definite statistics showing that only one or two of each hundred beginning life will be economically independent at age 70 and the vast percentage dead without much valor or glory, many would not care to begin. As regards the price we pay for living, for once we might be indifferent towards the cost, for the vast majority will gladly pay it even though it returns to them but little. Scotchmen would do well not to think over these matters, for we do not wish the race to become extinct by cashing in early.

Life is dynamic and stormy. From everlasting to everlasting millions carry on, and this is as it should be, comforted by the preacher who says that all does not end with the grave. Religion is

a beautiful thing. Always truly helpful, it eases the price some pay for living. Physicians would do well to prescribe more of it.

THE WASTE OF CATGUT

The waste of catgut in surgical operations is appalling, and it is surprising the lack of thought given by the surgeon and his assistants to this particular feature of operating room technic; and the hospital bears the loss.

Technic comes naturally to some individuals, while others acquire it only after much drilling; then there are those who continue through life with a slipshod way of doing things. It has never been determined whether a goat cannot or will not swim; the fact is he does not. There are entirely too many associated with surgery who will not show any disposition to conserve in the use of catgut or other supplies—reckless extravagance. It is most unfortunate that assistants very often follow the bad habits of their chief.

The individual using the catgut is primarily responsible; secondly, the nurse at the instrument table. The nurse too frequently opens more tubes of catgut than will be used instead of watching the operator very closely and anticipating, when possible, his next need. With a trained personnel there should be a negligible amount of waste material. When there is not a trained operating team in action, the individual doing the operating should anticipate his need by asking for the catgut he will use next, specifying the size and whether plain or chromic.

Catgut is very frequently wasted by that group who use a half a strand for a single tie, whatever and wherever it may be, or even a third of a strand. Such woeful waste is entirely unnecessary and the procedure adds absolutely nothing of practical value to the surgical technic.

Catgut is frequently broken and the manufacturer condemned by those who have not learned how to tie a knot with this material. Occasionally the catgut is at fault.

In tying a knot the operator must consider the kind of tissue (whether friable or not), sense the tensile strength of the catgut and bear in mind whether plain or chromic is being used. Too often the tendency is to tie the knot too tightly, which constricts the tissues and may interfere with primary union.

In tying the knot the thumbs or index fingers should be automatically brought in contact with the knot to have more perfect control; otherwise structures are apt to be torn out, catgut broken, or the knot loosened.

The reply is often heard, "We should worry, the patient pays an operating room fee." Only a percentage do; even if all operating room patients did do so, it would be no excuse for an unnecessary waste of supplies.

John B. Murphy said that the most difficult part of his operative technic was to learn how to tie knots properly.

THOMAS McCRAE, M.D., D.Sc.

Dr. Thomas McCrae, Philadelphia, professor of medicine at the Jefferson Medical College, died June 30, at the University Hospital, following an operation for tumor of the spinal cord; aged 64. He was operated upon June 21 but had been in ill health for the past 2 years.

Dr. McCrae was born at Guelph, Ontario, Canada, a son of Colonel David and Mrs. Janet Eckford McCrae. He received his education at the University of Toronto, being awarded the degree of Bachelor of Arts in 1891; was a fellow in biology, 1892-1894; received the degree of Bachelor of Medicine in 1895, and of Doctor of Medicine in 1903. In 1907 he was made a Fellow of the Royal College of Physicians of London, and in 1924 was the College's Lumelian lecturer. He also did graduate work at the University of Goettingen. The University of Toronto awarded him the degree of Doctor of Science in 1927.

He became instructor of medicine at the Johns Hopkins University Medical School in 1900, was made associate in medicine in 1901, and in 1906 was made associate professor of medicine.

In 1912 he was appointed Magee professor of practice of medicine and clinical medicine at the Jefferson Medical College to fill the vacancy caused by the retirement of the late Dr. James C. Wilson.

He was a member of his county and State medical societies; a Fellow of the American Medical Association (chairman of the Section on Practice of Medicine, 1914-1915); a past president (1930) of the Association of American Physicians; a member of the American Philosophical Society. He was a member of the Toronto Club, a medical literary society in New York City; also a member of the Rittenhouse and University Clubs of Philadelphia, and the York Club of Toronto. He had been an associate of the late Sir William Osler and wrote extensively on medical subjects. He was the editor of Osler's "System of Medicine," and Osler's "Practice of Medicine."

The World War poem "In Flanders Fields" was written by Dr. McCrae's brother, the late

Dr. John McCrae, a lieutenant-colonel in the medical service of the Canadian Army Corps. The author of the poem, which was written on the battlefield, lies buried in Flanders Fields.

Dr. McCrae was of a very retiring disposition and shunned personal publicity, notwithstanding the many honors that came to him.

He married Miss Amy Gwyn, of Dundas, Ontario, in 1908, who survives him.

MEDICAL PHILADELPHIA ON PARADE

Philadelphia has long been recognized as the pioneer medical center of America. It is doubtful, however, whether at any time in the past has such a concrete forceful demonstration of the position of Philadelphia in the medical world been so graphically and completely visualized, as in the demonstration fostered, engineered, and developed by the medical profession of Philadelphia in the medical section of Philadelphia on Parade, May 9 to 18, 1935, at Convention Hall. Here one saw the story of life from its very inception until its maturity. There was shown by picture, preserved specimens, demonstration, charts, and talks the entire lesson of life, so that one, wandering through the exhibit, almost was led to the statement, "Ah! sweet mystery of life at last I've found you." The spirit of the entire demonstration was to visualize clearly for the people of Philadelphia what it means for Philadelphia to be the medical center of America and perhaps of the world.

The history of medical education was shown by the story of the first medical school in America, with a list of its faculty; the first woman's medical college in the world; the first coeducational medical school in the State; the oldest existing homeopathic college in the world and the oldest independent medical school in the world, all in Philadelphia. Here was seen a model of a ward in old Blockley, and then by striking contrast a ward in the new Philadelphia General Hospital.

The student nurses of the Philadelphia General Hospital, responsible for this exhibit, also picturesquely demonstrated the story of nursing by models in costume and descriptive caption. Here one saw the nurse mother of pre-Christian centuries, and in our mind's eye, aided by the pantomime of miniatures, we were taken through the ages from the original wise women, the Goddess of Healing, the early Christian deaconesses, Benedictine and Augustinian monks, Knights Hospitaler, and representatives of various secular and religious orders devoted to sympathetic care of the sick, down to Florence Nightingale, whose advent marked the beginning of modern nursing. The part that nursing has played in medical services in Philadelphia was graphically demonstrated by a visualization of the modern nurse—the student, graduate, and the visiting nurse.

The story of the development of the doctor was also told by sound and sight at the booth of the Philadelphia County Medical Society. Here was depicted the family doctor and the story of what it means in time, effort, and money to develop the high type of doctor that Philadelphia has always produced. Here, again, was emphasized the note that appeared throughout the entire exhibit, that Philadelphia is a pioneer in American medicine.

The Philadelphia County Medical Society demonstrated also by charts, serial films, and moving pictures the story of the endless activities of the doctor and the

organized medical profession to mitigate and prevent, as far as in their power, the ills to which flesh is heir. There was a picture demonstrating the advantage of periodic health examinations. Another showed why Philadelphia is the world's medical center. There also was shown by moving pictures the work that is being done to prevent blindness by educational instruction in industrial preventive measures.

There was vividly displayed by moving pictures the story of the drunken driver and what happens to him when he falls into the hands of the medical section of the Department of Safety. This film, together with the demonstration of this section of medical service in Philadelphia, demonstrated the appalling effects of driving while intoxicated. It also showed, however, the effort put forth to prevent the innocent victim of some nervous disease that might simulate drunkenness from being accused of intoxication. A rather interesting but condemnatory demonstration of some weaknesses in our legal administration was shown by a few figures which told the story of drunken driving in Philadelphia in 1934. There were 1579 chauffeurs who were examined and found intoxicated by the police surgeons of Philadelphia, yet of this appalling number only 177 were found guilty and punished. The rest by various and devious ways were released and escaped punishment for their menace to the Philadelphia public.

The story of how Philadelphia doctors, through their great institutions, are persistently looking for ways and means of prevention and cure of tuberculosis, cancer, diabetes, and infectious diseases was all shown by actual demonstrations. To tell the story as depicted by this exhibit would take volumes. The lessons told could only have been appreciated by a visit to this exhibit.

How the medical profession is coping with the problem of maternal welfare in the home was graphically depicted by an actual demonstration of what the visiting student doctor does in taking care of the obstetric patient in the homes of the poor.

The section of laboratory examinations, sponsored by the Philadelphia General Hospital, demonstrated many scientific achievements in the study of diseases of the kidneys, parasitic diseases, syphilis, bacterial diseases, cancer and ulcer of the stomach, anemia, pregnancy, and diabetes. There was shown the method of catching the powerful emanations from radium and enclosing them in glass capsules, later to be used in the treatment of cancer. The radium bomb from the American Oncologic Hospital, containing 4000 milligrams of radium, worth \$200,000, was on exhibition.

Close by was shown by picture and wax models the story of the necessity for the early diagnosis of cancer in the hope that it may be cured. Further along was the demonstration of the work that is being done behind the scenes in the study of the life of the cell, in order to wrest from nature the mystery of these little cells that have gone wild. The Lankenau Hospital Research Department demonstration depicted the effects of certain sulphur compounds on the growth of the cell.

The Medical Research Department still further demonstrated the effects of roentgen ray on the cells.

At another booth was exhibited, by actual specimens carefully sectioned, that labyrinth of air cells called the sinuses, which modern medicine has shown to be such a serious cause for illnesses of all kinds.

The story of the fight against that devastating inherited condition, hemophilia, was told by the Medical Research Department of Jefferson Medical College. Here, too, were exhibited photographs of the interior of the stomach—gastrophotography.

What modern pharmacy means to medicine was ably demonstrated by the exhibit of the Philadelphia College of Pharmacy and Science, on the Standardization of Drugs. The story of the development of digitalis, that invaluable drug that is needed in the treatment of heart disease, was related.

The demonstration of the Philadelphia Research Institute, by the presentation of countless numbers of living rats whose growth has been influenced by the administration to preceding generations of that mystical substance called "hormones," would provide inspiration for some of our most romantic writers.

The dental section demonstrated the important part Philadelphia has played in the development of dentistry from the beginning of this branch of medical service to the present time.

What veterinary science has done for the control of disease in the animal kingdom was shown by demonstrations of the Veterinary Section of the University of Pennsylvania. The story of foot and mouth disease, a disease that has been introduced into the United States several times but always eradicated by modern veterinary methods, was graphically shown.

Romance, tragedy, comedy, mysticism, science, human emotions, sacrifice, genius, art—all were depicted in what was perhaps the most comprehensive demonstration that Philadelphia has ever seen of what modern medicine means to the people of Philadelphia and the world. Any one of the many exhibits would provide material for volumes.—(*Philadelphia on Parade*, May 11, 1935.)

STATE BOARD EXAMINATION

The following questions were submitted by the State Board of Medical Education and Licensure at the examination conducted July 9 to 13, 1935, in Philadelphia and Pittsburgh.

Medical and Surgical

Physiology, Pathology, Bacteriology, and Physiologic Chemistry

1. What peculiar value does each of the following have biochemically: Cod liver oil? liver extract? pituitrin? insulin?
2. Discuss briefly the etiology, the pathologic course, and the sequelae of otitis media.
3. State the physiologic effect of each of the following forms of anesthesia: (a) Inhalation; (b) spinal; (c) local.
4. Describe the renal condition and give the urinary evidence in one form of nephritis.
5. Explain the altered functions found (a) in Jacksonian epilepsy; (b) in locomotor ataxia; (c) in Bell's palsy.
6. Discuss the technic of gastric analysis. Give evidence and significance of abnormal findings.
7. How would you prepare a specimen for submission to the laboratory for confirmation in a case of suspected tabes dorsalis? typhoid fever? gonorrhea? amebic dysentery?
8. Discuss (a) the pathology in bone necrosis; (b) the process of healing in a fractured bone.
9. Tabulate a normal differential white cell blood count. How does it vary in acute infection? in primary anemia?
10. What systemic condition follows a deficiency in the diet (a) of each of the recognized vitamins? (b) of carbohydrates? (c) of mineral salts?

Diagnosis, Symptomatology, Medical Jurisprudence, and Toxicology

1. Describe your treatment for bichloride of mercury poisoning.
2. Having determined in your own mind that a therapeutic abortion may be necessary, what should be your next procedure?
3. Give the temperature curves of uncomplicated small-pox, scarlet fever, and measles.
4. Discuss gout.
5. What clinical phenomena, aside from physical signs, should make the early diagnosis of pulmonary tuberculosis strongly presumptive?
6. Discuss pulmonary thrombosis and state the conditions under which it is likely to appear.
7. Discuss the diagnostic value of altered knee jerks.
8. What is hypotension and under what circumstances does it occur?
9. Diagnose congestive heart failure.
10. Discuss rheumatic fever in childhood.

Gynecology and Obstetrics

1. In how far is eclampsia preventable? When and how should pregnancy be terminated in a patient suffering from preëclampsic toxemia?
2. When is internal podalic version the operation of choice for delivery? Describe the technic of the same.
3. In a case of uterine myoma requiring operation, what arguments may be advanced in favor of complete hysterectomy instead of supravaginal amputation of the organ?
4. Discuss the influence of diabetes mellitus upon gynecologic disease, as well as upon the course of pregnancy and labor.
5. Discuss the effect of syphilis upon the developing fetus. State why antisyphilitic treatment should be instituted during gestation.
6. Discuss the treatment of incomplete, infected abortion (a) with severe hemorrhage; (b) without hemorrhage.
7. Outline the differential diagnosis of menorrhagia in a patient near the menopause.
8. Discuss the relative seriousness of subserous, intramural, and submucous myomata.
9. A patient has sustained a complete perineal laceration during labor. It is repaired immediately but does not heal. When would you recommend a secondary operation? Justify your choice of time.
10. Define "generally contracted" (justo-minor) pelvis, and give typical pelvic measurements in this condition. What general principles would govern your management of such a patient in labor at term?

Anatomy and Surgery

1. Give the structural deficiencies in and describe an operation for the relief of lateral harelip with cleft palate.
2. Describe the course and location of the external carotid artery. Give some reasons for and describe its ligation at the point of election.
3. Define hernia. Name and describe the anatomic structures involved in each of the following types of hernia: Umbilical, direct inguinal, femoral, scrotal.
4. Describe the so-called traumatic fevers. Give their causes and treatment.
5. When is the excision of a joint advisable? What are the conditions favorable to successful function after excision?
6. Describe the signs and symptoms that would lead

you to suspect the accumulation of excessive wax in the ear. How would you treat such a case?

7. What are the diagnostic signs and symptoms of an intracapsular fracture of the femur? What would be the treatment of such a fracture in an individual, age 35? in an individual, age 85?

8. What is a whitlow? How should it be treated?

9. Describe the various methods of bandaging the head.

10. After wounds of the extremities, what are the indications for amputation?

Practice, Materia Medica, Therapeutics, Hygiene and Preventive Medicine

1. Give the dietetic and medical treatment applicable in a case of duodenal ulcer, occurring in a male, age 25.

2. What is a potable water? Illustrate.

3. Discuss the several lines of treatment useful in a case of influenzal pneumonia.

4. Given a case of mitral stenosis, as occurring in a boy, age 10, and a girl, age 8, what advice would you offer in each case, as to the future for these young folks?

5. Name the official preparations of iodum, with dosage of each. Give the indications for the use of each preparation.

6. When would you choose each of the following drugs for use in treatment: Adeps? petrolatum? oleum olivae? oleum theobromatus? Write a prescription that incorporates the use of one of the above preparations. Use only N. F. or U. S. P. preparations.

7. Give the physiologic action and dosage of apomorphinae hydrochloridum.

8. For what abnormal physical conditions of the body would you prescribe (a) thyroid extract? (b) liver extract? (c) calcium? (d) dilute hydrochloric acid?

9. Outline the treatment indicated in vomiting, as it results (a) from cerebral origin; (b) from food intoxication; (c) from acute infectious disease.

10. Discuss the relative merits of cupping, leeching, and blistering in applied therapeutics. Illustrate.

NOTE: In questions involving materia medica and therapeutics, answer in accordance with the school of medicine in which you have been taught. A member of the Board, representing your school, will grade your paper.

COMMENTS AND EXCERPTS

Heredity May Be Responsible for Much Sinus Trouble.—The unfortunate child who suffers from sinus disease may have to blame it on his ancestors, it appears from a study by Dr. Hector Mortimer of McGill University, Montreal, reported in *Science News Letter*, July 6, 1935.

An underlying factor in certain cases of sinus disease was traced to the pituitary gland, which plays the rôle of nature's sculptor in moulding the shape of the face and skull. The size and shape of the sinuses therefore depend on pituitary function, and they are inherited in accordance with the Mendelian laws of heredity.

But inheritance is not the only factor determining the size of the sinuses. Pituitary function may become disturbed after birth so that a child born with a predisposition to normal-sized sinuses may fail to develop them because his pituitary gland was not sufficiently active while he was growing. On the other hand, his sinuses may become too large because of overactivity of the gland, and this may give such a form to the sinuses that if they become infected subsequently drainage may be more difficult than normal.

Poisonous substances and diseases occurring during

the growing period may also interfere with normal growth of the head bones and consequently with sinus development as well as with growth and development elsewhere in the body. Diet, environment, and natural selection acting through the pituitary gland are 3 factors affecting the bone growth and sinus development.

New Vitamin, Choline, May Aid in Diabetes Control.—A new vitamin which is essential for liver function and which may play an important rôle in controlling diabetes was described at the meeting of the American and Canadian Medical Associations by one of its discoverers, Dr. C. H. Best of Toronto, codiscoverer of insulin, and reported in *Science News Letter*, June 22, 1935.

The new vitamin is called choline. It is found in many foods, but the best sources are meat, egg yolk, and yeast. Lack of this vitamin causes fatty liver.

The vitamin was discovered in the course of insulin investigations. Dogs that had no pancreas failed to live for more than a few months, even when given insulin injections. When they were fed minced pancreas, in addition to the insulin, they lived for years.

However, chemical studies of the pancreas showed that in addition to producing insulin and a digestive ferment this organ contained choline, and that it was the choline in the diet of minced pancreas that kept the dogs alive after they had lost their own pancreases.

Cases of fatty liver in human beings may be due to lack of choline in the diet.

The choline discovery has thrown further light on the diabetes problem. The latter condition is a liver disorder rather than a disorder of the insulin-producing pancreas, it now appears.

"The pancreas is not always to blame in cases of diabetes," Dr. Best declared.

Diabetes may be caused in 3 different ways: The liver, as the result of injury or disease, may become too active and make too much dextrose sugar from the starches, sweets, and proteins eaten; or the liver may become overactive due to lack of insulin (the usual explanation though not necessarily the usual cause of diabetes); or, finally, the pituitary, thyroid, and adrenal glands, either alone or in combination, may become overactive and affect the liver through their relation with the insulin-producing part of the pancreas.

Cure for Cancer May Be Found in Defensive Diet.—According to *Science News Letter*, July 6, 1935, the real "cure" of cancer is to be achieved by reestablishing the body's defenses against malignant growth. This prediction was made by Drs. J. Maisin and Y. Pourbaix, of the Cancer Institute of the University of Louvain.

The means of accomplishing this—suitable diet or possibly chemicals obtained from certain animal organs—are indicated by studies reported in *The American Journal of Cancer*, June, 1935.

The work of the Belgian scientists is still in the experimental stage and their results, promising though they seem, have been obtained only with mice suffering from one form of cancer. The studies are not reported as a cure for cancer but as a signpost for scientists, pointing what seems to be a logical and promising way to an ultimate cure of cancer.

"The experimental results here recorded," the scientists state in conclusion of their scientific report, "may be interpreted as indicating that it is possible to influence the evolution of tar cancer in one direction or the other by diet. Our results show unquestionably that chemical factors can be found which protect against

cancer or lower the resistance to definite carcinogenic substances."

The scientists proceed in the cancer problem on the theory that it is a constitutional disease rather than a local ailment. Consequently they think treatment should be aimed at strengthening the body's defenses, rather than at destroying the cancerous growth. Cancer in their opinion is the "peculiar response of injured cells" of an animal—mouse or man—that has been intoxicated by organic poisons. These poisons may be certain chemicals, as in tar cancers, or they may possibly be poisons produced by chronic infection, or they may be still other poisons that get into the body.

Rebuild the body's natural defenses and the body will be able itself to destroy and dispose of the cancer, they reason.

"By our experiments," they report, "we have demonstrated that in changing by diet the chemical composition of the organic fluids of an intoxicated animal it is fairly easy to modify its cancer response.

"It is reasonable to assume that by further studies it will be possible to find organic chemical compounds which, injected or given in the diet, will protect against the poisoning which leads to a typical growth and cancer.

"We believe, also, that in this way it will be possible to make a cancer slowly disappear by reestablishing the organic defenses which will take care of the growth.

"Such a cure of cancer seems more logical than a specific remedy with power to kill cancer cells and leave untouched normal cells."

Mice develop cancer when their skins are painted with tar. (Men also develop cancer from exposure to tar, as seen in chimney sweeps' cancer and mule spinners' cancer.) When the mice are fed ground-up bits of certain organs—liver, pancreas, and the lining of the lower digestive tract—the tar cancers develop sooner and grow faster than usual. When the mice are fed certain other organs—brains, thymus gland, and bone marrow among others—the tar cancers do not develop as soon as usual. Apparently the latter group of organs contain a substance that checks or stops the growth of the tar cancers.

Chemical treatment of the various organs fed to the mice showed that each organ apparently contained one substance that checked the growth of cancer and another that promoted the growth of the cancer. It is through the interaction of these 2 substances in the various organs or through their proper balance that the healthy body has a system for regulating cell growth.

MEDICAL ECONOMICS

The Council Bluffs Plan of Immunization Against Diphtheria.—In the past few years the diphtheria problem in Pottawattamie County, Iowa, has been of great importance from the standpoint of morbidity, mortality, and economic loss. In Council Bluffs alone, a city of 42,000, there were reported from Sept. 1, 1933, to Sept. 1, 1934, 74 cases of diphtheria with 8 deaths. Slightly more than 50 per cent of the cases were in the age group from 5 to 13 years. Of the 74 reported cases 38 were in families receiving relief, and over 30 were in one school district, the residents of which were largely on relief.

Periodically, the local medical society has been requested by parent-teacher associations to enter into a mass immunization campaign, the materials to be furnished by the State Board of Health and the doctors to donate their services or at best to receive only a nominal

stipend. Twice during the last 10 years such programs have been entered into by individual physicians. Of these programs no accurate records can be found. No Schick tests were performed; the physicians were not recompensed; no responsibility was assumed by the parent-teacher associations or the Board of Education. In other words, those physicians who participated in the campaign were assuming full liability for a program over which they had no control and from which they could receive little but further calls for gratuitous service.

The local society has consistently held itself aloof from these programs, but in the face of the problem of increasing diphtheria and the slow progress of voluntary immunization, the society felt that only a mass program could be of real worth and presented the following plan to the school superintendent's office, where it was enthusiastically received. With the endorsement of the Board of Education it became a project of the school system.

Program of Immunization Against Diphtheria in Council Bluffs.

I. Nonmedical participants

A. School system, providing:

1. Questionnaire to obtain listing of immune and nonimmune individuals.
2. Circularization of parents to stimulate interest.
3. Permanent standardized record system.
4. Certificate of immunization for doctor's signature.
5. Representation on governing committee.

B. Any interested lay group (parent-teacher associations, etc.) providing:

1. Meetings at which interest may be stimulated.
2. Transportation of children to doctors' offices when needed.
3. Contributions to indigent fund.
4. Representation on governing committee.

II. Medical participants providing:

- A. Free choice of physician to parents.
- B. Treatment in individual offices.
- C. Treatment consisting of one dose of alum precipitated toxoid obtained from local druggists by physician.
- D. Standard fee of \$3.00 with a minimum fee of \$1.50, reduction being made at physician's discretion.
- E. Signature of certificate of immunization for each child immunized. (Certificate carries suggestion that Schick test be done in 6 months, but this is optional and at the individual's expense.)

III. Governing committee made up of representatives from above groups, providing:

- A. Biweekly meetings for direction of program.
- B. Indigent fund obtained through solicitation of interest and charitable organizations.
 1. Physician's charges against fund approved.
 2. Checks drawn by committee treasurer against fund for payment of accepted charges.

IV. Publicity committee made up of representatives from above groups providing:

- A. Censoring of all publicity before presentation to laity.
- B. Direction of publicity through:
 1. Circularization of parents.
 2. Newspaper comment.
 3. Speeches.

Although the program was begun on May 1, 1934, little but organization was accomplished. This, however, was no small undertaking since in addition to the necessary statistical work and the choice and formation of predictably active committees, there was the task of diplomatically convincing the lay groups involved that the doctor was entitled to a reasonable fee for his service. It must be remarked at this point that there never was encountered any serious criticism or antagonism, even from the cults.

The total enrollment in Council Bluffs schools as of September, 1934, was 9453. Of this number 2078 represented the enrollment in the 2 high schools. The number of children in elementary schools (the group at which the campaign was directed) was 7460. Of this number approximately 2500 had received immunization by May 1, 1934. By December 1, 5137 were so treated, making a total of 2637 immunized under the present arrangement. Of this number 1147 were treated at their own expense, the remaining 1490 being fully or partially paid for by the central committee fund. An interesting phase of the program was the large number of preschool children whose immunization was stimulated. These figures are not yet available, but they will be large. As yet no definite program of Schick-testing has been initiated. This, of course, represents an obligation to be fulfilled.

An analysis of these figures on the basis of schools indicates that those schools which started with the lowest percentage of immunization are finishing with the highest. One school has risen from 14 to 67 per cent, another from 16 to 92 per cent, and a third from 23 to 94 per cent. The rating of one school has risen from 43 to 98 per cent. This is explained, of course, by the fact that funds have been made available for those unable to pay.

Certain phases of the program warrant discussion. The alum precipitated toxoid was chosen because of its simplicity, freedom from reaction, cheapness, and apparent superiority to the older materials. This material was furnished by the doctor and purchased by him from the local retail druggist, thereby enabling the druggist to realize a legitimate profit. The cost of the program was borne by the community. All printing and printed material was supplied by the school system, as was all clerical help. The central fund was raised by subscription from lay groups and individuals. In the administration of this fund it was held as a principle that each individual should pay as much of the minimum fee as he could before he received any aid.

It is impossible to give enough credit to the lay groups and individuals who participated in this program. The superintendent of schools took an aggressive and vital part, using the entire teaching organization in furthering the work. The Parent-Teacher Association and the school nursing staff acting in a liaison capacity were invaluable. The Woman's Auxiliary to the Pottawatamie County Medical Society assumed the burden of publicity and did a splendid piece of work. Financing of the central fund was made possible by the activities of altruistic individuals.

Aside from the unexpected success in the number of children immunized this program represents a striking achievement for the doctor. Every child was immunized by the doctor of his parents' choice. Every treatment was given in a physician's office, and the physician was the sole judge of a patient's right to receive treatment at a reduced fee. The Pottawatamie County Medical Society believes that this is a concrete demonstration that the doctor need not carry the burden of such pro-

grams, but that with proper organization and just a little educational effort it is possible to put this responsibility directly where it belongs—upon the community.—*Journal of Iowa State Medical Society*, January, 1935.

Additional Data on Medical Economics

Delaware County p. 908

PHYSICAL THERAPY

Therapeutic Indications of Infra-red Radiation.

—Dr. Joseph Echtman, New York, N. Y., states that infra-red rays are used, abused, and misused by thousands of practitioners. The simple way of operating the apparatus does not convey to the doctor's mind the possibility that its therapeutic application may not be just so simple and that some knowledge is required for its proper employment. The writer speaks from his experience with doctors whom he found employing infra-red therapy where they thought it was right, but without right thinking. There is not sufficient literature on the subject of infra-red therapy and some articles are not only poorly written but actually misleading. An occasional short discourse on this subject, giving the result of personal experience and observation of many years, may be of use to the general practitioner who is interested in the proper application of this therapy. Not every ache and pain is benefited by the application of heat; on the contrary, in certain cases or stages of disease, it does harm.

When a patient receives an over-exposure to the ultraviolet rays and a severe erythema is expected, he could be spared the unpleasantness from the burn if he were subjected immediately to infra-red radiation for one-half hour.

Van Amstel states that infra-red rays have a stimulating influence on the sex hormones. This influence may probably be responsible for the encouraging results gynecologists have obtained from the application of infra-red rays in some diseases of women.

Diseases of the extremities in which infra-red radiation is absolutely contraindicated (but is nevertheless being administered by some practitioners) are: Raynaud's disease; thrombo-angiitis obliterans; endarteritis obliterans; erythralgia; and thrombophlebitis. In these diseases of the extremities infra-red or, in fact, radiant heat from any source above body temperature should never be employed as serious results, even severe gangrene, have followed its use.

Employment of infra-red radiation in some clinical conditions:

Bursitis.—In this condition infra-red rays and massage may be advantageously employed but one must know the proper time to utilize this treatment. Bursitis, like any other “-itis,” has 3 stages—acute, subacute, and chronic. The important pathologic element in the third or chronic stage is calcium and fat deposition in the bursa, usually presenting positive roentgenographic findings. Heat in the acute stage aggravates the pain and prolongs that stage. In the second stage infra-red rays and massage are the most ideal treatments, though ionization is used in some cases in this stage. In the third or chronic stage, especially if there are positive roentgenographic findings, infra-red rays and massage are of only limited value.

Arthritis.—Infra-red radiation is absolutely contraindicated in arthritis caused by the *Bacillus tuberculosis*. The varieties of arthritis in which infra-red therapy is

indicated are gonorrheal, traumatic, and rheumatic. In gonorrheal arthritis infra-red radiation is of good service in all its stages—acute, subacute, and chronic, but diathermy is superior to infra-red radiation. In traumatic arthritis infra-red rays may not be of benefit, or the patient may feel worse from the heat when applied immediately following the trauma. In the subsequent stages infra-red treatment is, no doubt, of value. In rheumatoid arthritis infra-red therapy or heat in any form is, again, absolutely contraindicated in the acute stage.

Neuritis and Neuralgia; Myositis and Myalgia.—Infra-red treatment is of more positive benefit in neuritis than in neuralgia. Infra-red rays have a definitely favorable effect on myositis (traumatic and rheumatic), but not so on myalgia. Both myalgia and neuralgia are, not infrequently, more favorably influenced by the high frequency effluve after infra-red therapy followed by massage or other forms of treatment have completely failed to relieve the sufferers.

Fractures.—Simple fractures will benefit by radiant heat and massage, which should, therefore, be used to hasten recovery. Severe fractures, accompanied by considerable swelling and pain, are benefited but little by infra-red radiation and massage. The process of recovery is slow, and many months are required to get appreciable results. There are more effective methods such as ionization followed by sinusoidalization.

Backache.—Many backaches which are due to myositis, mild spondylitis, or mild sacro-iliac disease are benefited by infra-red radiation. Patients with chronic spondylitis or sacro-iliac disease, especially with positive roentgen-ray findings, are benefited but little from infra-red treatment and should be given diathermy. A number of backaches (with no definite etiology or pathology) are not benefited by infra-red rays nor by diathermy but by high frequency effluve. These are neuralgic backaches.

Gynecology.—Infra-red treatment is of good service in backache which is due to gynecologic conditions. It has also been employed with satisfactory results in other affections belonging to the realm of gynecology. Menorrhagia and metrorrhagia have been successfully treated with infra-red radiation. A sufficient number of hours of exposure to the rays is, however, necessary to obtain desirable results.

Generally speaking, infra-red radiation (radiant heat) should be employed whenever the application of convective heat in clinical conditions is called for. Convective heat, according to Sampson, is "heat from some source not in contact with the body thrown onto the body by radiation." It may prove to be of better service than radiation from other sources of convective heat (e.g., from 1500 to 2000 watt bulb), because of its special effect on muscle and certain hormones of the body as mentioned previously.—*Medical Times*, June, 1935.

MEDICOLEGAL

Malpractice: Reliance on Sponge Count by Nurses No Defense.—The patient and her husband sued the physician-defendant, *Stawicki v. Kelley* (N. J.), 174 A. 896, alleging that in the performance of an abdominal operation a sponge was left in the patient's abdomen. The sponge was described as "a gauze pack or pad, 6 inches wide, about 18 inches long and 6-ply gauze in thickness, with a tape about 4 inches long attached to one corner." To it was attached a metal ring.

From a judgment for the plaintiffs, the physician appealed to the supreme court of New Jersey, alleging that the trial court erred in not directing a verdict in his favor.

The physician-defendant operated upon his patient in a public hospital, over which he had no control, and the hospital supplied 2 nurses from its staff, to assist in the operation. He asserted that by recognized custom it was the duty of the nurses who assisted him to keep count of the sponges and the duty of the head nurse to report, before the operation wound was closed, as to the correctness of the sponge count. He contended that the head nurse had so reported to him in this case, and he argued that he was entitled to rely on that report as the nurses were not in his employ or furnished by him. He claimed that under the circumstances he was not required to make any extended examination of internal conditions after the operation and was not responsible for an erroneous count of the sponges used. Any duty of independent examination that rested on him, he contended, was shown to have been adequately performed, so that nothing in the evidence justified the jury in finding that he was negligent, and the case therefore should not have been submitted to the jury.

The supreme court of New Jersey, however, did not agree with the defendant's contentions. Notwithstanding the nurse's count, said the court, a duty remained with the defendant to examine independently, to make sure that no foreign body remained in the abdominal cavity. The existence and nondiscovery of so considerable an object as the pad that was left in the patient's body in this case, particularly in view of the testimony of expert witnesses as to the usual practice of an independent examination by operating physicians, presented a case for submission to the jury. The very fact that the physician-defendant was operating with nurses not in his employ nor, so far as appears, of his own selection seemed to the court to give emphasis to this view.

The court affirmed the judgment in favor of the plaintiff.—*J. A. M. A.*, July 20, 1935.

Additional Medicolegal Data

Luzerne (Hazleton Branch) p. 913

INDUSTRIAL MEDICINE

Pneumoconiosis.—The Bureau of Mines has recently issued a statement reviewing the literature on the effects of breathing dusts, especially silica dusts. Two further reports dealing with prevention and treatment of dust diseases and some of their economic and legal aspects in industry are to appear later. The material in the report is extensive and few general conclusions are drawn. It is fairly safe to infer, however, that the silicotic lung is more susceptible to bacterial infection than the average lung. This is probably due to the irritation of the respiratory tissues by the inhaled dust particles, which weakens the mucous membranes and renders them susceptible to infection. The toxic influence of certain inorganic dusts on the tissues may be a contributing factor. There are almost as many classifications of stages of silicosis as there are studies of the subject. Thus, the Committee on Standard Practices in Compensation of Occupational Diseases of the American Public Health Association describes 3 arbitrarily divided stages. Pancoast and Pendergrass suggest the following: (1) Peribronchial-perivascular-lymph node predominance type, (2) early interstitial predominance, (3) ad-

vanced interstitial predominance, (4) nodular predominance, and (5) advanced diffuse or terminal fibrosis. A detailed statement of occupation is important in diagnosis. The mere fact that a man is a miner has slight, if any, value. The cardinal physical observation in silicosis, is diminished chest expansion. It is generally accepted, however, that the roentgenogram offers the best and most reliable indication of the lung changes that occur in silicosis, particularly in the early stage. Finally it was agreed at the International Congress on Silicosis in 1930 that, to produce the pathologic condition, silica must reach the lungs (1) in a chemically uncombined condition, although the dust inhaled may be either a natural mixture of silicon dioxide with other dusts, such as occurs in granite, or an artificial mixture, such as scouring powder; (2) in fine particles of less than 10 microns in diameter, and (3) in sufficient amount and over a certain period of time, the latter 2 factors being reciprocal variants. The minimum of these 2 factors has not yet been determined.—*J. A. M. A.*, May 25, 1935.

HOSPITAL ACTIVITIES

City Sues Estate for Hospital Case.—The State of Pennsylvania and the City of Philadelphia, July 12, entered suits in Superior Court, Providence, R. I., against Marshal Morgan, of Warwick, administrator of the estate of Thomas Dorsey, late of Philadelphia.

The state in a \$3000 suit claims \$1411.14, and the city in a \$5000 suit claims \$3417 for food, raiment, medical expenses, and lodging for Mr. Dorsey while he was a patient in the Philadelphia Hospital for Mental Diseases from Apr. 8, 1921, to the time of his death on Oct. 15, 1934. The estate several months ago was enhanced by the recovery of a bank deposit amounting to more than \$10,000.

The Radio-Opacity of Rubber Tubing for Drainage Purposes.—Theodore J. Edlich, Jr., M.D., New York City, stresses that the radio-opacity of rubber tubing for drainage purposes has been a much neglected attribute. It serves as a means of identification of tubing lost within a body cavity. Every surgeon has heard at some time of either a drain lost within the abscess cavity of an empyema, or of a split tube, improperly retained, that has entered from an infected abdominal wound or hernial repair into the peritoneal cavity. In hospital practice, where the responsibility of surgical cases is partially held by the inexperienced (and the experienced are not infallible), accidents do occur, and the consideration of a detail, such as the radio-opacity of the rubber used, will prove invaluable in its identification by roentgen ray and its subsequent recovery, not to speak of medicolegal contingencies.

Rubber itself is a hydrocarbon and as such is transparent to roentgen rays. However, commercial compounds usually contain added fillers, such as calcium carbonate, barium sulphate, and the like, in order to improve the usefulness of the rubber for the particular purpose for which it is intended. Rubber aprons heavily compounded with heavy metals are used in roentgen-ray laboratories for the protection of the operators.

Up to the present time, there has been little or no demand for radio-opaque rubber tubing for drainage purposes. Hence a given sample of tubing, with composition unknown, may or may not be radio-opaque. It is suggested by the author that orders for rubber tubing have the added specification of tested radio-opacity.

Radio-opaque graduations on rubber tubing offer further possibilities.—*Medical Times*, June, 1935.

PUBLIC HEALTH

\$8,000,000 Fund to Be Used in Guarding Nation's Health.—A program for spending \$8,000,000 for the promotion and protection of the health of the nation has been formulated by state and federal public health officials.

The \$8,000,000 fund is expected to be provided by Congress in connection with the Social Security Bill just passed. It will allow the local communities of the nation to go ahead with needed health programs to an extent never before possible.

The bill provides that the funds are to be allocated by the U. S. Public Health Service to the various states on the basis of 3 factors: Population, special health problems, and financial needs. If an allotment is made to a state, the funds may then be given out when the state meets certain requirements with regard to health services rendered the public and the matching of federal funds by the state legislatures.

In preliminary discussion of the program, the health officers emphasized the need for the selection of personnel on the basis of ability, training, and professional standing. Appointments on a political basis will be avoided.

The training of personnel to administer the public health work is one of the problems to be met, and may be aided by the new federal funds. It will be possible for state health officers to select promising young professional men and women and send them to universities to receive advanced training for this type of work.

Members of the conference indicated that the money, if received, will be expended slowly and with care.

Half of the \$8,000,000 fund, or \$4,000,000, will be allocated to the states on a per capita basis. Of this amount, one-half will be used to match, dollar for dollar, existing appropriations and the other half will be used to match new appropriations that may be made by state legislatures as a part of this expanding health program.

Another 30 per cent of the total fund, \$2,400,000, will be devoted to an attack on the special health problems of individual states, including the training of personnel so that they will be competent to handle them. The hookworm of the southern states and the malaria of mosquito-ridden regions are among the special problems that this fund will be used to combat.

Since properly trained personnel is one of the major problems in a battle of this sort, one-half of this \$2,400,000 fund will be devoted to the establishment of suitable training centers and the payment of the expenses of young professional men and women to fit them for this work.

Allocation of the remaining \$1,600,000 will be on the basis of financial need. A small part of this amount, \$400,000, will be distributed equally to all the 51 states and territories. The remainder, \$1,200,000, will be used for aiding those states least able to provide funds for adequate health service.—*Science News Letter*, June 29, 1935.

Nationwide Study of Fireworks Accidents Started.—A nationwide study of the nature, causes, and results of fireworks accidents was inaugurated July 5 by the American Museum of Safety, 116 East Nineteenth St., New York City, with the coöperation of public health authorities and safety organizations throughout the country.

The study will seek to ascertain how serious a hazard

to life, limb, and sight fireworks are, which particular items of fireworks are involved in most accidents, what influence prohibitory legislation has on the frequency of fireworks accidents, and what are the sources of the fireworks causing accidents.

The study will be under the direction of Dr. Leland E. Cofer, former Assistant Surgeon General of the United States Public Health Service, and former Director of Industrial Hygiene for the State of New York.

The Museum of Safety will seek to ascertain the name of every person injured in a fireworks accident this year and to secure from this person, or from the doctor or hospital treating him, details of just how the accident occurred and with what results. Health commissioners and other public health officers, as well as hospitals, police chiefs, and safety councils, and the press have been urged to cooperate in this effort.

Morbidity in Pennsylvania in May, 1935

Locality	Disease				
	Diphtheria	Measles	Scarlet Fever	Typhoid Fever	Whooping Cough
Latrobe	0	18	0	0	1
Lebanon	1	127	6	0	0
Lewistown	0	8	1	0	1
McKees Rocks	1	10	3	0	0
McKeesport	0	24	12	0	0
Mahanoy City	0	0	0	0	0
Meadville	0	75	3	0	8
Monessen	2	32	0	0	1
Mount Carmel	0	13	0	0	0
Munhall	0	1	4	0	0
Nanticoke	0	0	1	0	0
New Castle	0	178	4	0	6
New Kensington	1	7	3	0	1
Norristown	0	4	3	0	24
North Braddock	0	1	0	0	0
Oil City	0	460	1	0	6
Old Forge	0	0	0	0	0
Olyphant	0	10	0	0	0
Philadelphia	15	262	280	0	145
Phoenixville	0	0	0	0	1
Pittsburgh	6	874	99	0	41
Pittston	2	1	0	0	0
Plymouth	0	18	0	0	0
Pottstown	1	1	4	0	1
Pottsville	0	0	1	0	0
Reading	0	431	18	0	10
Seranton	0	34	7	0	3
Shamokin	0	0	0	0	0
Sharon	0	29	0	0	0
Shenandoah	1	0	1	0	0
Stellton	0	4	0	0	7
Sunbury	0	13	9	0	8
Swissvale	0	18	7	0	2
Tamaqua	1	3	8	0	1
Taylor	0	1	0	0	0
Turtle Creek	0	1	4	0	0
Uniontown	2	0	7	0	2
Vandergrift	0	150	2	0	0
Warren	0	13	0	0	0
Washington	0	20	2	0	1
Waynesboro	0	22	7	0	0
West Chester	0	0	1	0	2
Wilkes-Barre	6	298	13	0	3
Wilkesburg	0	24	11	0	1
Williamsport	0	102	4	0	58
York	0	0	0	0	0
Townships					
Allegheny County:					
Harrison	0	0	1	0	0
Mt. Lebanon	0	0	0	0	0
Stowe	0	2	3	0	0
Delaware County:					
Haverford	0	1	6	0	3
Upper Darby	0	12	9	0	11
Luzerne County:					
Hanover	0	25	1	0	0
Plains	0	6	1	0	0
Montgomery County:					
Abington	0	10	3	0	12
Cheltenham	0	4	1	0	19
Lower Merion	1	3	13	0	12
Total Urban ..	51	4103	782	3	506
Total Rural ..	55	4524	901	29	376
Total State ..	106	8627	1683	32	882

TUBERCULOSIS ABSTRACTS

A Review for Physicians

PREPARED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Published through the coöperation of the Pennsylvania Tuberculosis Society and The Medical Society of the State of Pennsylvania

TUBERCULOSIS is a serious disease in infants, but they usually recover from primary complex and often from secondary lesions. Older children do very well when properly handled, if the diagnosis is made early, before meningeal or serious pulmonary involvement. Abstracts of an admirable review of tuberculosis in children, by Charles Hendee Smith, are here presented.

TUBERCULOSIS IN THE CHILD

Many physicians think that all children are infected, and that so-called "tuberculous infection" may be disregarded unless "tuberculous disease" supervenes. This is a most dangerous view and often leads to neglect of children who deserve care. Many other physicians do not realize that serious tuberculosis is not at all rare in infancy.

There are 2 measures of the incidence, namely, the tuberculin skin reaction and the death rate. The widespread impression among physicians that the tuberculin reaction is of little significance, and that practically all children after infancy are infected is far from the truth. The tuberculin reaction gives very definite information; it shows that the tubercle bacillus has lived and grown in the child's body and has given off something, exciting a sensitivity of the body cells to tuberculin. A positive tuberculin skin test does not tell whether the disease is active or not, nor whether the lesion is tuberculous, but merely that the individual has been infected at some past time.

Of the skin tests, the Mantoux or intracutaneous test has supplanted all others, since it is much more reliable than the Pirquet, Moro, or Calmette tests.

The death rate from tuberculosis, another measure of incidence, is as high in the first 2 years as any year until early adult life. It falls off rapidly up to age 5 and the lowest rate is from age 5 to 15, after which there is a steady rise. Tuberculosis is often a fatal disease in infants, but relatively not fatal in school children. The clinical aspects of tuberculosis are different in infants (up to age 2 or 3) and in older children, and they need separate consideration.

Infancy Types

In infancy the primary focus gives few physical signs. A transient unexplained fever and perhaps failure to gain satisfactorily are its only symptoms. In fact the element of surprise is the predominant note in nearly all infantile tuberculosis. The following types may be distinguished.

1. Tracheobronchial adenopathy of large extent. Such infants usually have fever and do not gain well. The chest shows practically no signs. The roentgen ray gives a wide supracardiac shadow, often rounded outlines on one side or both, suggesting nodes.

2. Cases of marasmus. There may be a story of feeding difficulty, but many infants do well at first and then begin to fail. Routine roentgen-ray studies should be made on all such patients and may reveal definite tuberculosis in the lymph nodes or wide dissemination, or even large cavities.

3. Cases simulating pneumonia with fever, prostration, cough, and physical signs of consolidation or with crackling, resonant râles at the bases suggesting bronchopneumonia. These infants may be emaciated but are often fairly well nourished. The roentgen ray shows mottled shadows over part or all of the pulmonic fields, indicating bronchogenic disseminated tuberculosis or localized consolidation much like lobar pneumonia.

4. Unexplained high fever, without local signs, often turns out to be disseminated pulmonary or generalized tuberculosis.

5. A final group includes the cases which are

definitely suspected of tuberculosis from the outset.

Physical examination of the lungs is often most unsatisfactory in small children. The stethoscope is the least useful instrument at our disposal in the tuberculosis seen in childhood. The roentgen ray may reveal large lesions in cases where no signs whatever can be elicited either before or after seeing the film. In all the acute and exudative forms of tuberculosis there is a leukocytosis.

Older Groups

Older children with a positive skin test fall into the following groups.

1. Recent infections in those who have been infected within 2 years or less, that is, those who have a fresh primary complex.

2. Those who show calcification in the hilus region of the lung, perhaps a calcified primary focus in the parenchyma.

3. Children who have been infected more than 2 years who have healed their lesions by resolution and show no calcification.

4. A few who have definite pulmonary tuberculosis.

5. A few who have nonpulmonary tuberculosis in mesenteric nodes, cervical nodes, bones, kidneys or skin, etc.

It is important to determine whether the disease is active or not, since this is the keynote of treatment. Constitutional symptoms are more significant than roentgen-ray findings or physical signs. The better way is to test the children first, then roentgen ray the positive reactors, *and in addition seek for signs of activity in all, regardless of the roentgen-ray findings.*

The clinical picture of activity is characteristic and quite obvious to a trained observer. The symptoms and signs are few but added together should be enough to arouse suspicion of what is happening to the child. Fever is an almost constant sign of activity, that is, a rectal temperature which rises above 100° F. nearly every day. Temperatures under 100° F. may be disregarded in childhood. The fever is irregular, rising to a different level on different days. The highest point may be at any time of day or even in the middle of the night. The great irregularity is characteristic.

Failure to gain weight at the proper rate (if due to malnutrition) is always a suspicious sign. No other disease seems to exercise so prompt an effect on the nutrition in childhood. Gain in weight may occur in adults with advancing lesions, but is rarely seen in children. There is often secondary anemia.

In infancy, fever, loss of weight, with or without persistent signs in the lungs, should suggest tuberculosis. Of course, bone disease and meningitis always do so. A Mantoux test, the roentgen ray, and carefully recorded temperature and weight curves are necessary to complete the diagnosis.

In older children, failure to gain, languor, fatigability, a low transmission of the tracheal whisper, and hypertrichosis are suggestive. Phlyctenules, tuberculids, or other local disease may be the first sign. With a positive Mantoux test, fever is significant of activity even with a normal roentgen ray.

In the diagnosis of tuberculosis 3 questions should always be kept in mind.

1. *Has the child been infected with tuberculosis?* Answered by the Mantoux test.

2. *What is the site of the disease?* The answer may be given by the symptoms, physical examination, and roentgen-ray films. All of these may be practically negative, but in this event the mediastinal nodes are probably the site of the disease, since they are involved in most primary infections, or secondarily to some degree even when the primary complex is elsewhere.

3. *Is the disease active, stationary, or cured?* This must be judged by general symptoms, fever, the effect on the nutrition, and by any signs or symptoms of local activity.

Treatment

The treatment of children with tuberculosis is based on the same principles as those used in adults. If there are no local or general signs of activity a child should lead a normal life with somewhat closer watching than usual. Activity of the process as shown by fever, failure to gain, and local signs of activity demand rest until all the symptoms have entirely disappeared. The diet is important. Children do not take food nor digest it well if fed too often. Milk between meals or with meat meals is not advisable for any child.

The difficult period comes when a child first begins to get up. As soon as the temperature stays under 100° F. for several weeks, if he is up to normal weight, and if there is no contraindication from local signs of activity, he may be allowed up a little at a time, but with care to avoid overexercise. The effect on the temperature is the guide, as in adults. If the temperature again rises as a result of activity, it is necessary to put him back to bed and start over.

The Tuberculosis of Childhood, Charles Hendee Smith, Annals of Internal Medicine, March, 1935.



THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA

SCIENTIFIC PROGRAM

EIGHTY-FIFTH ANNUAL SESSION

Harrisburg, September 30 to October 3, 1935

GENERAL MEETINGS

AUDITORIUM, FARM SHOW BUILDING

Tuesday, October 1, 10 a.m.

Reporter—MISS F. E. DILLAN, 3340 N. Meridian St., Indianapolis, Ind.

Call to Order by the President.

MOSES BEHREND, Philadelphia.

Invocation.

RT. REV. WYATT BROWN, D.D., Litt.D., LL.D., Bishop of Harrisburg.

Report of Committee on Necrology.

ROBERT G. BARCKLEY, Milford, *Chairman*.

Address of Welcome.

HON. GEORGE H. EARLE, Governor of Pennsylvania.

Address of Welcome.

HENRY R. DOUGLAS, *President*, Dauphin County Medical Society.

Presentation of Scientific Program.

STANLEY P. REIMANN, Philadelphia, *Chairman*, Committee on Scientific Work.

Announcement of Scientific Exhibit.

GEORGE R. MOFFITT, Harrisburg, *Chairman*, Committee on Scientific Exhibit.

Announcement of Entertainments.

HARVEY F. SMITH, Harrisburg, *Chairman*, Local Committee on Arrangements.

Installation of President Alexander H. Colwell.

President's Address.

ALEXANDER H. COLWELL, Pittsburgh.

Wednesday, October 2, 9 a.m.

AUDITORIUM, FARM SHOW BUILDING

(Note—Essayists will please deposit original copies of their papers with the secretary when they have finished reading them. The JOURNAL will not accept carbon copies.)

(Note—The ringing of the bell announcing the beginning and the conclusion of the time allotted to essayists and discussors is beyond the control of the presiding officers. Ample warning of this fact, with frequent reference to time allotted, has been given all who appear on the program.)

The Rationale of Electrosurgical Obliteration of the Gallbladder (An Experimental and Clinical Study

of 124 Cases) (Motion Pictures and Lantern Slides) (30 minutes).

MAX THOREK, Chicago, Illinois (Guest).

OUTLINE. The mortality rate in classical cholecystectomy is still high. Global figures indicate a 10 per cent mortality in unselected cases, and even higher in individuals of advanced years with hepatocardiorenal complications. From 15 to 20 per cent of individuals have dilated bile capillaries or larger bile ducts coursing through the gallbladder bed. Scalpel cholecystectomy necessarily opens these bile tracts and bile seepage results, giving rise to complications. The gallbladder bed cannot always be sutured over with serosa; drains are resorted to; these invite bile seepage and its evil consequences. A method of electrosurgical obliteration of the posterior wall of the gallbladder and the gallbladder bed is described, the aim of which is to substitute a dry, sterile, hyaline-like tampon instead of a raw, weeping surface as often obtains in classical cholecystectomy. An experimental study on animals followed by a series of clinical observations of cases. The rationale of the procedure.

Arterial Embolism: Its Etiology, Diagnosis, and Treatment (15 minutes).

JOSEPH C. DOANE, Philadelphia.

OUTLINE. This paper concerns itself with the more or less sudden deprivation of the blood supply of a part due to emboli or a more gradual thrombosis. Most thrombotic emboli which obstruct larger vessels originate in the heart. In 30 per cent of mitral stenotics coming to necropsy and in 15 per cent of cardiac cases, generally, clots formed *ante mortem* are found in the cardiac chambers. Mitral stenosis with fibrillation is notorious for its cardiac clot-forming tendencies. The sudden ischemia of an extremity produced by the lodgment of a cardiac embolus in one of its larger vessels is contrasted with the slow piling-up effect produced by vascular thrombosis. Three cases of embolism and thrombosis of the abdominal aorta are reported. The danger of rapid digitalization and the use of quinidine in the dislodgment of a cardiac clot. The use of citric acid by mouth and the citrates by vein to inhibit the extension of thrombosis, in the absence of other efficient remedies, is advised. The need for careful study of the cause of occlusion and its location before surgery is attempted. The use of the oscilometer, the skin temperature apparatus, and the histamine test as effective methods by which the above facts can be ascertained. Cooperation urged between surgeon and internist in deciding upon the wisdom and site of amputation of an extremity.

Discussion opened by JESSE L. LENKER, Harrisburg (5 minutes).

Treatment of Menstrual Disorders (15 minutes).

FRANK C. HAMMOND, Philadelphia.

OUTLINE. The object of this paper is to bring before the general practitioner the latest concepts regarding the treatment of the all-important subject of menstrual disorders in order that a better understanding may be had in regard to what is being done for the treatment of this most unfortunate and ever-prevailing condition.

Discussion opened by PAUL TITUS, Pittsburgh (5 minutes).

The Use and the Abuse of Methods that Are Intended for the Cure of Gonorrhea (15 minutes).

EDGAR S. EVERHART, Harrisburg.

OUTLINE. Treat this infection as other definite infections of other organ systems are treated. Stop overtreating; permit the

body to cure itself. Pay greater attention to the patient and less to the disease. Employ simple means; if indicated, stimulate the parts affected. General practitioners are implored to impress upon their clientele the dangers, especially in females. General practitioners are advised to use more systemic urinary tract antiseptics (if indicated) and less local irritants. Local, specialized treatment should be reserved for the specialist. For the mass of sufferers from acute gonorrhea it would be far better never to have any medicines introduced into the urethra than to have the parts insulted as is the custom to-day.

Discussion opened by GEORGE A. HOLLIDAY, Pittsburgh (5 minutes).

Gold Therapy Hazards Encountered, With Report of 2 Cases (Lantern Demonstration) (15 minutes).

ABRAHAM I. RUBENSTONE, Philadelphia.

OUTLINE. The paper deals with the development and improvement in gold, its therapeutics, untoward reactions, dosage, hazards, local and constitutional reactions following its repeated injection. A report of 2 cases that are striking examples of hepatitis and nephritis following its use. Necropsy findings. The results of some animal experiments with sanocrysin.

Discussion opened by CARROLL S. WRIGHT, Philadelphia (5 minutes).

Significance of the Noncalculous Gallbladder (15 minutes).

GEORGE P. MULLER, Philadelphia.

OUTLINE. Discussion of the problems of the treatment of the patient with symptoms of cholecystitis without stone colic, and the relation of cholecystography thereto. The end result of cholecystectomy in the noncalculous gallbladder.

Discussion opened by EDWIN P. BUCHANAN, Pittsburgh (5 minutes).

Cancer of the Breast. A Review of Our Experience with Roentgen-ray Treatment as a Factor in End Results (Lantern Demonstration) (30 minutes).

ALLEN GRAHAM, Cleveland, O. (Guest).

OUTLINE. The discussion is based upon a review of cases of cancer of the breast, operated upon from 1895-1930, with and without roentgen-ray treatment. The material is presented in successive 5-year periods, and summaries of the total for comparative purposes. A basis for prognosis following operation is suggested.

Thursday, October 3, 9:15 a. m.

Recent Trends in Medical Economics (20 minutes).

FRANCIS F. BORZELL, Philadelphia.

OUTLINE. The term "medical economics" has come to include phases of medical service not confined strictly to the accepted implication of economics. The economics of sickness services is so involved in the relationship of the medical and allied professions to society at large as to include social and industrial economics. As the logical trustees of medical service the profession finds it necessary to establish more firmly its position as an integral part of our economy. This is rendered necessary because of certain degrading extraneous influences. Our incentive is twofold. In order to defend the public we must insure for our profession the maintenance of certain basic ethical standards that have been the foundation of our past successful history. A firm organization will be necessary to maintain our ethical standards from attacks from without and intramural disciplinary measures from erosion from within. The abstract science of medicine can no longer occupy our entire attention. Medical practice is still largely an art. Organized medicine must use its beneficent influences in the study of the changing sociology.

The Physician-Patient Relationship: The Hospital and Social Service (20 minutes).

EDWARD L. BORTZ, Philadelphia.

OUTLINE. The nature of the service required by the public imposes certain qualifications on the medical profession which furnishes this service. Medical needs are infinitely varied; the doctor's requirements, including professional training and experience, equipment, and social contacts, were never higher than at the present. The physician-patient relationship was ideal between the traditional family doctor and his charges. The science of medicine has developed rapidly in the past quarter of a century while the art, especially the private physician-patient relationship, has been neglected. The transformation from family doctor to modern private health advisor is consid-

ered. Certain types of doctors and patients are discussed. Practices which jeopardize and degrade the physician-patient relationship, such as hit-or-miss selection of family doctors, frequent changing of doctors, advertising, unqualified and unethical specialism, fee splitting, lack of cooperation between hospital staffs and physicians referring patients, and health insurance (more correctly designated "health taxation"), are analyzed. Conditions which improve the physician-patient relationship are described. The hospital is a complex medical and social organization, necessary for adequate medical service. The 2 phases of hospital management, hotel and medical, should be kept distinct. Cooperation of administrative boards with staff doctors is essential. The variety of service furnished by any given hospital is at once its chief value and its most difficult problem. The majority of illnesses do not require hospitalization and are satisfactorily cared for by private physicians. Nevertheless, major maladies occur sooner or later in all homes and bring problems of diagnosis or treatment which the family doctor is unable to handle in the patient's home. Whether we like it or not, hospital staffs to-day are all engaged in the group practice of medicine. Hospital service, furnished by personnel or equipment, should be sufficiently flexible to aid the private physician in any problem of diagnosis or treatment in any patient, rich or poor, ambulatory or bed-fast. The standards and ambitions of modern medical social workers are discussed and an endeavor is made to align them properly with the interests and aims of the medical profession. Finally, closer cooperation between philanthropic foundations and the medical profession is discussed.

The More Common Obstetric Complications (15 minutes).

JOSIAH R. EISAMAN, Pittsburgh.

OUTLINE. From a group of some 1500 deliveries the more common and troublesome complications have been selected and analyzed for study. Included has been the antepartum preparation of the patient and the conduct of labor. Premature rupture of the membranes and rupture of the membranes as an inductive procedure, as well as the problems of the occipitoposterior position, transverse arrest, unengaged fetal head, and trial labor are likewise included. Premature separation of the normally implanted placenta is dealt with in a conservative manner. The obstetric use of the roentgen ray and the problem of fetal death and complicated presentation are considered.

Discussion opened by CLIFFORD B. LULL, Philadelphia (5 minutes).

A Survey of Diabetes and Pregnancy Based on a Review of 650 Cases (Lantern Demonstration) (15 minutes).

DAVID W. KRAMER, Philadelphia.

OUTLINE. A survey of 650 cases of pregnancy in diabetes; discussion of effects of pregnancy on diabetes; incidence of conception in diabetics; effect of diabetes upon pregnancy—in early and later stages; effects upon the child; analysis of the tables, with particular reference to the mortality rates of the mother and the child. A brief discussion upon the advisability of a diabetic undertaking the responsibilities of pregnancy.

Discussion opened by BERNARD B. WORMSER, Scranton (5 minutes).

Human Infertility: Modern Treatment (15 minutes).

BRADFORD GREEN, Philadelphia.

OUTLINE. Infertility is discussed from the standpoint of the male factors, the female factors, and dual factors. The newer concepts of treatment are described. Methods are outlined to assure the successful termination of a pregnancy once it has occurred.

Discussion opened by PAUL TITUS, Pittsburgh (5 minutes).

Boarding Out of Mental Patients (15 minutes).

WILLIAM C. SANDY, Harrisburg.

OUTLINE. The boarding out of mental patients, or as it is sometimes termed "family care," is not a new idea. Such a plan has been carried on for many years in Scotland; at Ghent, Belgium; and in Nuremberg, Germany. It has been tried on a small scale in at least one state and is being actively considered in Canada. It has been under consideration in Pennsylvania as one means of easing the congestion in the mental hospitals and as providing a more natural environment for those patients capable of enjoying and profiting by it. The patients would be carefully selected from those who had been committed and had been under observation and treatment in mental hospitals. The homes would also be carefully selected and the patients would continue under the supervision of the staffs of the hospitals, the whole procedure being under the rules and regulations of the State Welfare Department.

Discussion opened by CHARLES H. HENNINGER, Pittsburgh (5 minutes).

Medical Aids in the Treatment of Leukemia (15 minutes).

FREDERICK L. HARTMANN, Philadelphia.

OUTLINE. In addition to roentgen-ray therapy for leukemia, various preparations of lead have been used. Whenever this substance produces results in the form of a diminution in the number of circulating white blood cells, there are present also chills, fever, and general reaction. Believing that this latter might have to do with favorable results from lead, typhoid vaccine has been used with similar good results. Case histories are given and technic of administration is explained.

Discussion opened by GIBSON SMITH, York (5 minutes).

Prevention of Dental Caries and the Improvement of Health by Dietary Means (Lantern Slides) (30 minutes).

FREDERICK F. TISDALL, Toronto, Canada (Guest).

OUTLINE. The incidence of dental caries can be definitely lowered by dietary means. A number of factors are involved in this. The results of the investigations undertaken by the Department of Pediatrics, University of Toronto, will be presented. The present dietary standards are not commensurate with optimal health. The results of investigations showing how the health of the normal individual may be improved by dietary means will be presented.

SECTION ON MEDICINE

AUDITORIUM, FARM SHOW BUILDING

OFFICERS OF SECTION

Chairman—WILLIAM D. STROUD, 1011 Clinton St., Philadelphia.

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Tuesday, October 1, 2 p.m.

Cardiovascular Symposium

The Incidence and Prognosis of 400 Cases of Coronary Occlusion (20 minutes).

WILLIAM L. MULLINS, Pittsburgh.

OUTLINE. This group comprises cases in which the clinical and laboratory investigations yielded definite evidences of myocardial infarction following coronary occlusion. The incidence of the disease and the age of onset. The duration of life following attack is detailed in the different age groups. The significance of unusual symptoms and laboratory signs with reference to prognosis. The effect of treatment evaluated.

Discussion opened by ELLIOTT B. EDIE, Uniontown (5 minutes).

The Electrocardiogram as an Aid in the Diagnosis and Prognosis of Coronary Occlusion (Lantern Demonstration) (20 minutes).

JOSEPH B. VANDER VEER and L. EMMITT BROWN, JR., Philadelphia (by invitation).

OUTLINE. During the past 15 years the electrocardiogram has been of increasing value in the diagnosis of coronary occlusion. Within recent years there has been an attempt made to localize the site of the cardiac infarction. This was at first of academic interest only. An analysis of these results would suggest that the prognosis in these cases is somewhat dependent upon the location of the infarct. The normal arterial supply of the heart has considerable variations, but in general the areas supplied by the right and left coronary arteries are fairly constant. Value of electrocardiogram in localizing the site of infarction. Analysis of cases to show that the prognosis depends somewhat upon the location of the infarct. Comparison of electrocardiographic diagnosis with necropsy findings.

Discussion opened by LAURIE DODD SARGENT, Washington (5 minutes).

Comments on Latent, Nonvalvular, Congestive Heart Failure (Lantern Demonstration) (20 minutes).

ANDREW P. D'ZMURA, Pittsburgh.

OUTLINE. Many ambulant patients have latent congestive failure. Etiology of type without valvular changes. Symptoms and signs may be relatively obscure although electrocardiographic evidence may be definite and distinctive. Diagnosis may require extended observation. Care required in assessing degree of damage to avoid psychogenic "embroidery." Prognosis is often good. Treatment consists largely in the application of simple measures. Future progress in knowledge of this condition depends upon observation available to any physician and study of electrocardiograms, with correlation of necropsy findings, in the light of certain fundamental muscle reactions commonly overlooked.

Discussion opened by WILLIAM G. FALCONER, Clearfield (5 minutes).

Anginal Heart Failure; Its Causes and Treatment (55 minutes).

HAROLD M. MARVIN, New Haven, Conn. (Guest).

OUTLINE. A brief discussion of evidence secured during the past few years as to the nature and etiology of cardiac pain. The importance of this knowledge in regulating treatment. A brief outline of the medical measures that are of known value, and a discussion of the present status of the various surgical operations proposed for this purpose.

The Management of the Patient with Essential Hypertension (20 minutes).

EDWARD WEISS, Philadelphia.

OUTLINE. Incidence of the disorder. Relation to arteriosclerosis and kidney disease. Life history of the hypertensive individual with special reference to vascular response as measured by ophthalmoscopy. Recent studies of etiology emphasize the deep-seated nature of the disorder. Management, based on a concept growing out of these studies, calls for total evaluation of the hypertensive individual. Role of the emotional life in etiology and treatment. Evidence presented discourages superficial and one-sided approaches to a many-sided problem.

Discussion opened by CHARLES FALKOWSKY, JR., Scranton (5 minutes).

The Importance of Venesection and Venous Pressure to the General Practitioner (15 minutes).

HAROLD F. ROBERTSON, Philadelphia.

OUTLINE. The importance of venesection is stressed with particular reference to failure of the right and left heart. A bedside method of venous pressure determination with and without apparatus is presented in order to illustrate a practical procedure by which the family physician can decide whether venesection is indicated. The results of a study in the correlation of arterial, venous, and spinal pressures are considered, together with a new method in the treatment of congestive heart failure.

Discussion opened by WALTER G. LEAMAN, JR., Philadelphia.

Wednesday, October 2, 2 p. m.

REPORT OF EXECUTIVE COMMITTEE—ELECTION OF
SECTION OFFICERS

Joint Meeting of Section on Surgery with Section
on Medicine

MEDICAL AND SURGICAL DISCUSSION OF TUBERCULOSIS
AND GALLBLADDER DISEASE

The Results of Thoracoplasty in the Treatment of Tuberculosis (Lantern Demonstration) (15 minutes).

JOHN H. GIBBON, JR., Philadelphia.

OUTLINE. Thoracoplasties performed on 39 cases of pulmonary tuberculosis in one or more stages. The subsequent course of all these patients has been followed. The most recent had the last operation a year ago; the earliest case has been followed for 9 years since the last operation. Patients classified according to the type of lesion, special attention being given to the group with large cavities. End results have been segregated into 6 groups, varying from the group of patients who have been clinically cured and are symptom-free and able to work, to the groups of early and late mortality. The conclusion is reached, contrary to that of Wiener and Fishberg who studied a somewhat similar series, that thoracoplasty is of definite value in the treatment of tuberculosis.

Discussion opened by JOHN B. FLICK, Philadelphia (5 minutes).

Intrapleural Pneumolysis in Collapse Therapy of Pulmonary Tuberculosis (Lantern Demonstration) (15 minutes).

GEORGE WILLAUER, Philadelphia.

OUTLINE. Consideration of the clinical picture and roentgen findings since the onset of the disease, with selection of suitable cases. Anesthesia and generalities of technic; thoracoscopic findings; postoperative complications and their treatment; results and conclusions.

Discussion opened by ROYAL H. McCUTCHEON, South Mountain (5 minutes).

Thoracic Surgery in the Treatment of Pulmonary Tuberculosis from the Standpoint of the Internist (40 minutes).

JAMES ALEXANDER MILLER, New York, N. Y.
(Guest).

OUTLINE. The place of thoracic surgery in the treatment of pulmonary tuberculosis from the standpoint of the internist. Selection of suitable cases. Surgery and other methods of treatment. Contraindications and risks involved in these surgical procedures.

The Indications for Surgery in Gallbladder Disease (15 minutes).

DAMON B. PFEIFFER, Philadelphia.

OUTLINE. An analysis of the frequency, morbidity, and mortality of gallbladder disease with a consideration of the mutual fields of medical and operative treatment. It is contended that medical treatment is not begun early enough and is not thorough enough in the average case to fulfill its true function, which is to prevent chronicity and the advent of surgical complications such as gall stones, pancreatitis, organic degenerative disease, and the acute seizures of surgical nature. The mortality, as in appendicitis, is now due largely to the complications of the disease. Surgery should be invoked earlier in chronic disease and earlier in acute attacks than is now the practice.

Discussion opened by HARVEY F. SMITH, Harrisburg (5 minutes).

The Role of Infection and the Disturbed Cholesterol Metabolism in Cholelithiasis (Lantern Demonstration) (15 minutes).

HENRY L. BOCKUS, Philadelphia,
JOHN H. WILLARD, Philadelphia,
HARRY N. METZGER, Philadelphia.

OUTLINE. Experimental methods have not definitely established the relative significance of the factors of infection and the disturbed cholesterol metabolism in the etiology of cholelithiasis. A review of the literature dealing with the experimental and

clinical aspects of this problem. One hundred fifty surgically proved cases analyzed and divided into 3 groups: Pure cholesterol stones, cholesterol-calcium bilirubinate or mixed stones, and so-called pure pigment stones. An effort is made to ascertain the importance of infection of the gallbladder and of the cholesterol or metabolic disturbance in each group by a review of all pertinent historic, clinical, and laboratory data: An analysis of the stones, gallbladder, and its contents microscopically and bacteriologically; history of relevant infections; relation of onset and symptoms to pregnancy and menopause; habitus and sex of patient; preoperative culture and microscopy of bile for calcium bilirubinate and cholesterol crystals; cholecystographic findings, blood cholesterol level, and basal metabolic rates. Such clinical survey affords some idea of relative significance and incidence of the 2 etiologic factors under consideration. It serves to emphasize the importance of complete diagnostic study of every patient with cholelithiasis. The conclusions offer to some extent a guide to intelligent follow-up management.

Discussion opened by WALTER ESTELL LEE, Philadelphia (5 minutes).

Recent Advances in Surgery of the Pancreas (40 minutes).

ALLEN O. WHIPPLE, New York, N. Y. (Guest).

Pancreatic Enzyme Studies (15 minutes).

MAURICE I. STEIN, Harrisburg.

OUTLINE. A critical survey of some methods for determining pancreatic enzyme activity. The clinical picture of the less marked disturbances of the pancreas is rather vague. A dependable test of enzyme activity, which is clinically applicable, should be of definite diagnostic value. A comparable study of 4 methods of pancreatic enzyme determination is described. Only patients with no demonstrable digestive disturbances were used as a basis of this communication.

Discussion opened by THOMAS J. JOHNSON, Philadelphia (by invitation).

Thursday, October 3, 1:30 p. m.

The One-Hour, Two-Dose Dextrose Tolerance Test (Lantern Demonstration) (20 minutes).

HERBERT T. KELLY, Philadelphia.

OUTLINE. Alimentary glucose tolerance tests so universally employed in the clinical study of the mechanism and measurement of an organism's ability to metabolize carbohydrates are the result of diligent and successful research methods by various workers. Their limitations may be best portrayed by a quotation from Joslin: "Glucose and other food tolerance tests are often unreliable." The time selected to work the best, antecedent diets, and the rate of absorption from the intestine of ingested glucose are some of the factors which influence alimentary glucose tolerance tests. The new test is not affected by them and can be performed in one hour. The specificity of the one-hour, two-dose test is based on Allen's paradoxical law of dextrose, and all available data indicates the results of the new test to be more reliable, more convenient, and of inestimable value in affording an early diagnosis of latent diabetes.

Discussion opened by JOSEPH H. BARACH, Pittsburgh (5 minutes).

The Histidine Treatment of Peptic Ulcer (15 minutes).

FRANKLIN A. WEIGAND, Philadelphia.

OUTLINE. This is a preliminary report of the use in the medical department of the Lankenau Hospital of histidine monohydrochloride in the treatment of peptic ulcer. A brief résumé of the etiologic factors underlying peptic ulcer, its clinical course, and the general principles of treatment; the introduction of histidine into therapy and its mode of action; observations on the clinical course of patients treated and under observation in the medical department of Lankenau Hospital; conclusions as to its value and place in peptic ulcer therapy.

Discussion opened by CLEMENT R. JONES, Pittsburgh (5 minutes).

The Role of Psychiatry in the Penitentiary; A Study of 200 Psychotic Prisoners (Lantern Demonstration) (20 minutes).

CORNELIUS C. WHOLEY, Pittsburgh.

OUTLINE. Psychiatric and psychologic considerations. Brief illustrative case reports. Statistical data (slides) showing relationship of psychotic types to peculiar crimes, to age, race, environment, previous convictions, etc. Comparison of psychotic cases with nonpsychotic cases and with the general prison population.

Discussion opened by JOSEPH G. WILSON, chief medical officer, Northeastern Penitentiary, Lewisburg (5 minutes).

Bacterial Toxemia. Symptomatology with Simulation of Various Systemic Diseases. Diagnosis and Treatment (15 minutes).

MYER SOLIS-COHEN, Philadelphia.

OUTLINE. Focal infection frequently is associated with a toxemia, the symptoms of which are many and varied, some of them simulating the different systemic diseases, for which it is sometimes mistaken. Diagnosis requires a most thorough physical examination as well as selective bacteriologic study. Treatment consists in removing accessible diseased tissue, raising the patient's resistance to the infecting bacteria by means of hygienic measures, and stimulating specific antibody production by the injection of a potent vaccine containing the infecting organism and its soluble toxins. Methods for selecting the infecting organism from a mixed culture. Method of administering a potent vaccine.

Discussion opened by ANGELO L. LUCHI, Wilkes-Barre (5 minutes).

The Treatment of Thoracic Empyema by Aspiration and Air Replacement (Lantern Demonstration) (15 minutes).

BERNARD J. MCCLOSKEY, Johnstown.

OUTLINE. Thoracic empyema can be cured by aspiration and air replacement only. Aspiration provides escape of accumulated pus the same as open drainage and immune mechanism of the body removes the infection. This type of treatment offers hope for an improved mortality rate.

Discussion opened by GROVER C. WEIL, Pittsburgh (5 minutes).

SECTION ON SURGERY

ROOM F, FARM SHOW BUILDING

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Reporter—MISS MARY E. REIK, 27 Gramatan Gardens, Bronxville, N. Y.

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Tuesday, October 1, 2 p. m.

2 - 2:55 p. m.

Perforated Gastric and Duodenal Ulcers (20 minutes).

ROBERT L. SCHAEFFER, Allentown.

OUTLINE. A study of 22 cases of perforated gastric and duodenal ulcers. Length of time patient was treated medically before perforation. Discussion of cases as to age, sex, heredity, season, focal infection, and general mode of living. Symptoms before perforation and at the time of perforation; differential

diagnosis. Length of interval between perforation and operation with reference to mortality. Type of operation. Postoperative care.

Discussion opened by ISIDOR S. RAVIN, Philadelphia (5 minutes).

Hypert thyroidism and Heart Disease (Lantern Demonstration) (20 minutes).

HAROLD L. FOSS, Danville.

OUTLINE. Unrecognizable heart disease associated with thyrotoxicosis. Greater incidence than generally supposed. Treatment should be aimed at thyroid as well as heart. Long-standing systemic evidences of mild hyperthyroidism with heart changes. Benefits obtained by thyroidectomy in true case of hyperthyroidism. Question of value of total ablation in congestive failure. Results following thyroidectomy—total and subtotal. The utility, and lack of it, of basal metabolic studies in these cases. The readiness with which one may be misled in making a diagnosis. Multi-stage operations when disease is advanced and cardiovascular symptoms marked.

Discussion opened by JESSE L. LENKER, Harrisburg (5 minutes).

3 - 3:55 p. m.

The Treatment of Injuries of the Head.

WALTER E. DANDY, Baltimore, Md. (Guest).

OUTLINE. The diagnostic features that indicate when surgery begins and medical treatment ends. Suggestions regarding operative treatment if this is indicated.

4 - 5 p. m.

Differential Diagnosis in Abdominal Tragedies (15 minutes).

MAXWELL LICK, Erie.

OUTLINE. Abdominal emergencies frequently overlooked by the inexperienced. Conditions amenable to attack and cure are often converted into antemortem states by indecision and inaction. Courageous and decisive action necessary at the proper time. Should not be difficult to recognize abdominal emergencies. Too much emphasis is likely to be placed on laboratory studies and instruments of precision for diagnosis. General observation of patient, particularly as regards the facies, which is oftentimes a mirror to abdominal conditions. The pulse, tone of the voice, position in bed, all important and suggestive of an acute emergency. Pain, the dominant sign and symptom. Character of various pains. Method of onset, characteristics, and location. Changes in type and location in late cases may be misleading as to original lesion. Differential points in diagnosis between referred pain and actual abdominal pain. Personal experiences will be given regarding mistakes, and attention will be drawn to clues which were present by which mistakes should have been avoided. Ruptured ulcer. Acute pancreatitis. Traumatic abdomen. Late cases with peritonitis, in which diagnosis is obscure. Intestinal obstruction. Perforation of silent malignant lesions. Ureteral occlusion giving violent abdominal signs.

Discussion opened by DONALD GUTHRIE, Sayre (5 minutes).

Spinal Cord Tumors (Lantern Demonstration) (15 minutes).

FRANCIS C. GRANT, Philadelphia.

OUTLINE. A group of 24 verified tumors of the spinal cord. The clinical findings suggesting the position of the tumor in the 3 groups, extradural, intradural, and extramedullary and intramedullary. The difference in the mode of onset, the sensory and motor findings in each of these groups. The importance of estimation of the hydrodynamic reactions of the spinal fluid as shown by the Queckenstedt test. The indications for and the advisability of injection of lipiodol for more accurate localization. Operative procedures, results, and prognosis of the various groups of cases.

Discussion opened by SAMUEL S. ALLEN, JR., Pittsburgh (5 minutes).

Varicose Veins—Evaluation of Injection Treatment (15 minutes).

W. MINSTER KUNKEL, Harrisburg.

OUTLINE. Latest evaluation of the results which show a high percentage of recurrences. The mechanism of recurrences. Suggestion of possible methods to delay or prevent recurrences.

Discussion opened by GILSON COLBY ENGEL, Philadelphia (5 minutes).

Wednesday, October 2, 2 p.m.

2 - 5 p.m.

REPORT OF EXECUTIVE COMMITTEE—ELECTION OF
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Discussion opened by JOHN B. FLICK, Philadelphia (5 minutes).

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GEORGE WILLAUER, Philadelphia.

Discussion opened by ROYAL H. MCCUTCHEON, South Mountain (5 minutes).

Thoracic Surgery in the Treatment of Pulmonary Tuberculosis from the Standpoint of the Internist (40 minutes).

JAMES ALEXANDER MILLER, New York, N. Y.
(Guest).

The Indications for Surgery in Gallbladder Disease (15 minutes).

DAMON B. PFEIFFER, Philadelphia.

Discussion opened by HARVEY F. SMITH, Harrisburg (5 minutes).

The Rôle of Infection and the Disturbed Cholesterol Metabolism in Cholelithiasis (Lantern Demonstration) (15 minutes).

HENRY L. BOCKUS, Philadelphia,
JOHN H. WILLARD, Philadelphia,
HARRY N. METZGER, Philadelphia.

Discussion opened by WALTER ESTELL LEE, Philadelphia (5 minutes).

Recent Advances in Surgery of the Pancreas (40 minutes).

ALLEN O. WHIPPLE, New York City (Guest).

Pancreatic Enzyme Studies (15 minutes).

MAURICE I. STEIN, Harrisburg.

Discussion opened by THOMAS J. JOHNSON, Philadelphia (by invitation).

(For outlines of above papers of joint meeting, see program of Section on Medicine, p. 890.)

Thursday, October 3, 1:30 p.m.

1:30 - 3:30 p.m.

Undescribed Lesion of the Shoulder Girdle of Frequent Occurrence (Lantern Demonstration) (15 minutes).

JOSEPH P. REPLOGLE, Johnstown.

OUTLINE. The method of occurrence. Symptomatology and physical findings. The mechanism of occurrence. Treatment. A plea for more exact diagnosis of shoulder lesions.

Discussion opened by CALVIN M. SMYTH, JR., Philadelphia (5 minutes).

Artificial Ankylosis of Joints (Lantern Demonstration) (20 minutes).

JOHN A. HEBERLING, Pittsburgh.

OUTLINE. 1. History of arthrodesis. 2. Indications: (a) Instability and deformity; (b) disease; (c) static deformities; (d) trauma. 3. Methods: (a) Intra-articular; (b) extra-articular; (c) combined with tendon transference. 4. Anatomic location: (a) Foot; (b) knee; (c) hip; (d) spine; (e) sacro-iliac joint; (f) shoulder; (g) elbow; (h) wrist; (i) toe; (j) carpo-metacarpal.

Discussion opened by PAUL B. STEELE, Pittsburgh (5 minutes).

Fractures About the Ankle and Wrist (Lantern Demonstration) (20 minutes).

FREDERICK W. HEYER, Nanticoke.

OUTLINE. Incidence: In statistics on large groups of fractures, lower end fractures of forearm and leg bones are the most common, because of little soft tissue to protect and prevent direct violence to the bone. Parts are also subjected to greatest functional stress and strain. Repair: Union of fragments occurs in direct ratio to promptness with which they are approximated. Bancroft's animal experiments. Treatment: Modern tendency to immediate "splint and traction at scene of accident" treatment for fractures of shaft of humerus, upper radius and ulna, femur, upper tibia and fibula, and vertebrae. Owen, Kennedy, Goldthwaite, and others. This propaganda should apply to other fractures. Recommendation of early manipulation of displaced fragments in fractures about the ankle and wrist as soon as they are seen before swelling occurs to mask the diagnosis. Before roentgen-ray examination (loss of time) nature of displacement of fragments can always be determined early because of little soft tissue covering. Extent of manipulation, direction, overcorrection, etc. Retention: Moulded plaster splints. Will apply equalized pressure on all parts of extremity, avoid localized pressure injury to soft tissues, support circulation, give active immobilization, rest, and relaxation to the muscles and in most cases suffice for permanent dressing. Will permit active joint motion early.

Discussion opened by WILLIAM L. ESTES, JR., Bethlehem (5 minutes).

Incurable Vesicovaginal Fistula (15 minutes).

J. NORMAN WHITE, Scranton.

OUTLINE. History of fistula etiology. Prolonged labor with pressure of the head on the vesicovaginal septum. Rarely caused by forceps. Cancer of anterior vaginal wall. Accidents. Congenital deformity. Symptoms: Great discomfort and mental anguish from urinary odor, and never-ceasing burning. Treatment: American surgeons, Sims and Coffey, have been the leaders. The operation commonly employed is one of the procedures by Coffey.

Discussion opened by WALTER J. LARKIN, Scranton (5 minutes).

SECTION ON EYE, EAR, NOSE, AND THROAT DISEASES

ROOM B, FARM SHOW BUILDING

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Reporter—Miss F. E. DILLAN, 3340 N. Meridian St., Indianapolis, Ind.

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Tuesday, October 1, 2 p.m.

Macular Dystrophy (15 minutes).

JOSEPH I. GOUTERMAN, Philadelphia.

OUTLINE. The complexity of macular dystrophies which are still further confused by the prevailing custom of describing a syndrome under a variety of meaningless names. Hence the need for simplification and for a comprehensive classification of macular dystrophies. Highlights of the embryology, anatomy, and physiology of the macula in order to explain its vulnerability. An hypothesis for the pathogenesis of some of the macular dystrophies and a basis for their classification. A brief discussion of the various macular syndromes and their differential diagnosis. The hopeless diagnosis and the conspicuous lack of efficient therapeutic measures.

Discussion opened by LUTHER C. PETER, Philadelphia.

Chronic Inflammatory Tumors of the Orbit (Lantern Demonstration) (15 minutes).

WILFRED E. FRY, Philadelphia.

OUTLINE. Intra-orbital tumors produce part or all of the following symptoms and signs: Pain, proptosis, more or less deficient rotation of the globe, redness and swelling of the lids, chemosis of the conjunctiva, and diminution of vision. At times a mass may be palpated or changes noted in the bony orbital margin. Report of case in which microscopic examination revealed foci of lymphoid tissue surrounded by dense fibrous tissue, part of which had undergone hyalinosis.

Discussion opened by JAY B. RUDOLPHY and J. THOMAS KRALL, Philadelphia.

The Screen Test and Its Modifications (Lantern Demonstration) (45 minutes).

JAMES WATSON WHITE, New York, N. Y. (Guest).

OUTLINE. Any test to be practical must be accurate, applicable to a large majority of cases, and quickly made. It must also be reasonably accurate for all ages, and applicable in cases of amblyopia and suppression with no expensive or elaborate instruments. Such a test is the screen test with its modifications, screer-parallax, screen-Maddox rod, and screen-comitance. The object of this paper is to describe these tests in a practical way, and to point out the advantages of these tests over others as well as their accuracy and practicability.

Ophthalmology of the Near East (15 minutes).

HENRY W. GEORGE, Middletown.

Problem Cases in Refraction (15 minutes).

ISAAC S. TASSMAN, Philadelphia.

OUTLINE. Careful retinoscopy the first essential in examinations. May be difficult in presbyopes and others with dull shadows occurring with high degrees of ametropia, also cases with opacities in the media, nystagmus, albinism, and so-called "scissors movement." Patients suffering from definite ocular symptoms and showing low degrees of hyperopia or astigmatism require accurate refraction. In others with high degrees of hyperopia the effect of the accommodation and the indications are considered in prescribing the lens of proper strength for correction. The presence of myopia, especially in children, demands careful and continued observation with regulation and attention to the amount of close work performed. In certain cases of high myopia, and in persons with pronounced conical cornea and very low visual acuity, advantages and disadvantages of contact lenses are considered. Difficulties arising in refraction of aphacic cases; also in presbyopes who complain of difficulty in use of bifocals and others in whom convergence weakness causes a continued complaint of inability to read or do sustained close work even after proper lenses are prescribed.

Discussion opened by ALEXANDER G. FEWELL, Philadelphia.

The Problem of Increased Intra-ocular Tension in Concussion Injuries of the Eye (15 minutes).

P. HAROLD DECKER, Williamsport.

OUTLINE. Increased intra-ocular tension, particularly in young people, following contusion of the eye is discussed. The ciliary zone suffers the brunt of most eye traumas and is probably the factor determining hypertension in these cases. Why certain persons develop increased tension following these injuries furnishes interesting speculation, but a more vital question is whether atropine should be used. Illustrative cases.

Discussion opened by WARREN S. REESE, Philadelphia.

Vitamin Deficiency and Phlyctenular Disease (15 minutes).

LEONARD G. REDDING, Scranton.

OUTLINE. Theories as to the etiology of phlyctenular disease not unanimous. Statistical studies showing a decrease of incidence in the United States and an increase in Europe in the last 20 years. Suggested explanation for these discrepancies. Animal experimentation. Treatment of cases and results.

Discussion opened by WILLIAM ZENTMAYER, Philadelphia.

Wednesday, October 2, 2 p.m.

Report of Executive Committee—Election of Section Officers.

Symposium on Sinuses

The Clinical Anatomy and Development of the Paranasal Sinuses (Lantern Demonstration) (30 minutes).

J. PARSONS SCHAEFFER, Philadelphia.

OUTLINE. Consideration of the embryogenesis with reference to an interpretation of the variational anatomy of the sinuses in the infant, child, and adult. Developmental potentials as determining factors in adult anatomy. Anatomy of the sinuses at birth, puberty, and later life. The concept that all of the paranasal sinuses (maxillary, ethmoidal, sphenoidal, and frontal) are genetically ethmoidal, and its bearing in clinical work. The extramural expansion of the early sinuses from the ethmoidal field into the neighboring bones. The factors underlying the formation of the various types of septa and recesses in the several sinuses. Osseous dehiscences. Relational anatomy. The applied anatomy of the developmental and drainage ostia. The mucous membrane, cilia, and glands. Physiology.

Etiology and Diagnosis of Sinusitis (Lantern Demonstration) (30 minutes).

WALTER D. CHASE, Bethlehem.

OUTLINE. Under etiology are considered predisposition, susceptibility, allergy, climate, occupation, anatomic faults, and swimming and diving. Also those cases following or associated with certain diseases. The route of invasion. The diagnosis from the standpoint of history, symptoms and signs, transillumination, rhinoscopy, lavage, microscopic and cultural examination of the washings, roentgen-ray examination, and exploration of the suspected sinus.

Roentgen-ray Diagnosis of Accessory Sinus Disease (Lantern Demonstration) (30 minutes).

WILLIS F. MANGES, Philadelphia.

OUTLINE. The anatomy, particularly with reference to the development of the sinuses and the variation and distribution of the various sinuses. Under radiographic technic there will be a description of a number of more or less popular angles of exposure, with discussion of merits of each. Faulty technic will be discussed to show cause for mistaken diagnoses. Under interpretation the paper will describe the various stages and types of sinus disease and the importance of basing the interpretation on the technical quality of the radiographs as well as the clinical history of the patient. Under clinical applications an attempt will be made to show the importance of re-examination by means of the roentgen ray, the necessity for therapeutic attention as long as there is evidence of disease, and a few of the important complications that result from sinus infection.

Treatment of Sinus Disease (Motion Pictures) (45 minutes.)

ARTHUR W. PROETZ, St. Louis, Mo. (Guest).

OUTLINE. Consideration of the requirements of a healthy nose; its functions and physiologic mechanisms. The likelihood of restoring function in given cases; procedure in cases capable of improvement, but in which cure is impossible or unlikely. The choice between radical and conservative treatment. Rationale and requirements of surgical treatment. Conservative measures available. Selecting them for the case in hand.

General Discussion.

Thursday, October 3, 1:30 p.m.

Outstanding Signs and Symptoms in Sinus Thrombosis. Merits and Demerits of Internal Jugular Ligation in the Treatment of Lateral Sinus Thrombosis (Lantern Demonstration) (15 minutes).

MATTHEW S. ERNSNER and DAVID MYERS, Philadelphia.

OUTLINE. Inspection, palpation, hematology, spinal fluid pressure, and ophthalmologic findings are essential aids in making a diagnosis. Theoretically, internal jugular ligation is the ideal method as it supposedly prevents embolism. From a practical standpoint ligation has its limited indication and the hospitalization period is not shortened nor is the embolic phenomenon prevented.

Discussion opened by C. WEARNE BEALS, Dubois, and J. HOMER MCCREADY, Pittsburgh.

Remote Symptoms in Upper Respiratory Infections (15 minutes). JOHN B. PRICE, Norristown.

OUTLINE. There has been for some time a great deal of speculation relative to the remote or distant effects from infection in the upper respiratory area. Many cases of pain in regions not apparently associated directly with this great area can be traced by showing the relation between the neuro-anatomic and neurophysiologic aspects of infection or pressure in the upper respiratory tract. A number of observations viewed empirically would seem to bear out the theory that nerve connections or communications of the fifth, seventh, and tenth nerves can be held responsible for many of these distant phenomena. Observations are noted in some cases in which pain or pathologic involvement was quite distant from the focal area of infection.

Discussion opened by GEORGE M. COATES and GEORGE L. WHELAN, Philadelphia.

Endoscopy for Foreign Body. Report of 175 Cases (Lantern Demonstration) (15 minutes).

CHEVALIER JACKSON, Philadelphia.

OUTLINE. Unusual features of various groups of cases, especially with reference to roentgenologic diagnosis and the solution of mechanical problems. Biplane fluoroscopic guidance was used in some of the cases, and the technique of this procedure with a brief description of the latest developments in special apparatus will be presented.

Discussion opened by WM. EDWARD CHAMBERLAIN (by invitation) and LOUIS H. CLERF, Philadelphia.

Blood Pictures in Middle-Ear Infection with Special Reference to Differential Diagnosis and Prognosis (Lantern Demonstration) (15 minutes).

MAX M. STRUMIA, Bryn Mawr (by invitation).

OUTLINE. From the study of over 100 cases of selected middle-ear infection, the blood picture has emerged as a very reliable means of differential diagnosis between simple open draining lesions and lesions with a necrotic nondraining focus. It has also been possible to readily foresee, usually days in advance, extensions of the process and complications such as pneumonia, and to obtain very objective data on the prognosis. Combining the diagnostic and the prognostic features of the blood picture with the clinical findings, a much clearer understanding of the picture of these cases has been possible. These blood studies have embraced every possible phase of the leukocytic picture, that is, numeric changes of each and every type of leukocyte, variations in the ratio of mature to young neutrophils, and finally, regressive and degenerative changes of the neutrophils. With a good technical set-up, this study which so greatly benefits the clinician, is easily within reach of any worker.

Discussion opened by CURTIS C. EVES, Philadelphia.

SECTION ON PEDIATRICS

ROOM D, FARM SHOW BUILDING

OFFICERS OF SECTION

Chairman—FRANCIS T. O'DONNELL, 345 N. Main St., Wilkes-Barre.

Secretary—THEODORE O. ELTERICH, 3700 Fifth Ave., Pittsburgh.

Executive Committee—HERBERT E. HALL, Second National Bank Bldg., Uniontown; EMILY P. BACON, 2104 Spruce St., Philadelphia; NORBERT D. GANNON, 354 W. Ninth St., Erie.

Reporter—MISS HAZEL E. CARBAUGH, 126 Walnut St., Harrisburg, Pa.

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Tuesday, October 1, 2 p.m.

Plans of the State Health Department (15 minutes).

EDITH MACBRIDE-DENTER, M.D.,

Secretary of Health, Commonwealth of Pennsylvania.

Recent Advances in Nutrition (Lantern Demonstration) (50 minutes).

E. V. MCCOLLUM, PH.D., Sc.D., Baltimore, Md. (Guest).

The Clinical Significance of Skeletal Roentgen-Ray Assessment in Children (Lantern Demonstration) (50 minutes).

T. WINGATE TODD, Cleveland, Ohio (Guest).

Conservation of Vision in the Child (20 minutes).

GEORGE E. DE SCHWEINITZ, Philadelphia.

OUTLINE. The care of the child's eyes at birth and immediately afterward. Interstitial keratitis in children with inherited syphilis. Dacryocystitis in infants and young children and its management. Phlyctenular keratitis and other types of ulcer of the cornea to which children are liable. The relation of such ulcers to other conditions, local and general. Detection and correction of refractive errors. The management of concomitant convergent strabismus and the training of amblyopic eyes.

Discussion opened by DAVID H. BOYD, Pittsburgh.

Recent Advances in the Bronchoscopy of Children (20 minutes).

CHEVALIER JACKSON, Philadelphia.

OUTLINE. The word bronchoscopy and its field work have by common consent been expanded to include not merely the endoscopic examination of the bronchi but the study and treatment of morbid conditions of the airway from the fauces to the periphery of the lungs. In all of this work that concerns children the bronchoscopist is the technical assistant of the obstetrician and the pediatrician. Recent advances in bronchoscopy include every disease affecting the airway of children from birth to adolescence. Asphyxia neonatorum; congenital atelectasis; the exanthemata; stenotic, inflammatory, and suppurative diseases of the air passages. Nothing the bronchoscopist can do lessens the necessity for medical care and management.

Discussion opened by JAMES K. EVERHART, Pittsburgh.

6: 30 p. m.

Informal Subscription Banquet

For members and friends of the Pediatric Section, honoring the dean of Pennsylvania pediatrics, J. P. Crozer Griffith.

At this time Dr. Griffith will present a paper entitled "History and Recollections in the Development of Pediatrics in Pennsylvania."

Wednesday, October 2, 2 p. m.**REPORT OF EXECUTIVE COMMITTEE—ELECTION OF SECTION OFFICERS**

2 - 2: 55 p. m.

Clinic at Harrisburg Hospital, Front and Mulberry Sts.

Presentation of cases by physicians of Dauphin County:
MARY E. CLOUGH, HENRY R. DOUGLAS, MARY RIGGS NOBLE, ARTHUR L. PAGE, RICHARD R. SPAHR.

3 - 4: 10 p. m.

The Normal Child:

Illustrative health examination for each age period:

1. Newborn Child (14 minutes)

JOHN F. SINCLAIR, Philadelphia.

2. Infant (14 minutes).

J. CLAXTON GITTINGS, Philadelphia.

3. Preschool Child (14 minutes).

EMILY P. BACON, Philadelphia.

4. School Child (14 minutes).

HOWARD CHILDS CARPENTER, Philadelphia.

5. Adolescent Boy and Girl (14 minutes).

FREDERICK J. KALTSEYER, Philadelphia.

The Application of Mental Hygiene Methods in Pediatric Practice (10 minutes).

HARRY M. LITTLE, Pittsburgh.

OUTLINE. A brief presentation of the mental hygiene point of view as applied to the handling of the problems of childhood, emphasizing the importance of considering the whole individual in relation to his total environment in the planning and carrying out of treatment. The desirability and practicability of the addition of psychotherapy to the therapeutic armamentarium of the pediatrician and the general practitioner, who in the course of their daily practice are in a unique position to deal with the personality and emotional problems of childhood in their incipency.

The School Physician and the Pediatrician (10 minutes).

ALLEN M. KERR, Pittsburgh.

(Representing Pennsylvania School Physicians' Association.)

OUTLINE. The work of the medical inspector and the pediatrician is closely related because of the contact of both with young children. While the school doctor does not see infants, in the preschool examinations he does study children age 4 to 4½. A survey of 70,000 or 75,000 such preschool children will disclose the defects and nutritive conditions existing, and to that extent will show a need for pediatric service of a preventive nature and the opportunities existing for such service. It is because school medical officers see these opportunities that so many of them enter pediatrics; hence, also, a mutual knowledge by the 2 groups will be advantageous to both.

Discussion opened by NORBERT D. GANNON, Erie.

Presentation of Cases Illustrating the Commoner Types of Mental Deficiency (Lantern Demonstration) (15 minutes).

ARCHIBALD LAIRD, Polk.

OUTLINE. The objective of this presentation is to familiarize the physician with the classification of mental deficiency and the common physical deformities which accompany the condition.

The biologic, social, environmental, and palliative methods of controlling mental deficiency will be explained as the cases are presented. The institutional provisions of Pennsylvania for the care of the mentally deficient will be considered, together with a brief discussion of the fields of inquiry applied to the children admitted thereto. Mention will be made of a well-rounded program of institutional training and education for mentally deficient children which attempts to prepare them for community usefulness.

Our Present Conception of the Treatment of Pneumonia in the Child in the Home (Moving Pictures) (15 minutes).

ELLSMER PIPER, Pittsburgh.

OUTLINE. Brief historical review. Specific therapy attempts. Importance of good nursing. Value of well-kept clinical record. Danger of overtreatment. Hygienic care including room, rest, environment, ventilation, elimination, and cleanliness. Poultries and counterirritation of doubtful value. Symptomatic treatment of toxemia, temperature, cough, nervous irritability, and abdominal distention. Nutritional needs and supportive measures. Indications for oxygen therapy. Plea for early use of oxygen. Oxygen tent method most efficient. Moving picture demonstration of oxygen tent showing application, ease of feeding, routine care, examinations and observations under tent. Intramuscular administration of whole blood in delayed resolution. Medication. Convalescent care.

Discussion opened by H. B. EMERSON, Erie, and ROBERT T. DEVEREUX, West Chester.

Thursday, October 3, 1: 30 p. m.**Xanthomatosis (Hand—Schuller—Christian's Disease) (Lantern Demonstration) (10 minutes).**

HYMAN A. SLESINGER, Windber.

OUTLINE. Cases of Hand-Schuller-Christian's disease are being reported with increasing frequency during the past few years. More than 60 authentic cases on record. The condition is considered to be a generalized xanthomatosis or lipid histiocytosis. Clinical features: Onset insidious, classic symptoms, physical findings, roentgen-ray findings, blood findings. Pathology: Lipoidosis of all organs, relationship to reticulo-endothelial system. Treatment: Roentgen-ray, radium, diet. Prognosis: Poor. Few cases are on record in which a cure occurred. Report of case.

Congenital Ectodermal Defect. Report of Case (10 minutes).

JOHN D. STEVENSON, Beaver.

Further Studies on the Thymus and Pineal Glands (15 minutes):

LEONARD G. ROWNTREE; JEFFERSON H. CLARK; NATHAN H. EINHORN; WM. A. SHANNON (by invitation); A. STEINBERG, B.S. (by invitation); and ADOLPH M. HANSON (by invitation)—from the Philadelphia Institute for Medical Research in the Philadelphia General Hospital, the laboratories of the Philadelphia General Hospital, and the Hanson Research Laboratory, Faribault, Minnesota.

OUTLINE. Following the continuous parenteral administration of thymus extract (Hanson) to successive generations of parents, there is marked accruing acceleration in the rate of growth and development during the early life of the offspring in the third and later generations. Following ablation of the thymus gland, N. H. Einhorn and W. A. Shannon find moderate retardation in growth in the second and third generations. This is lacking if thymectomized parents are subjected to thymus treatment. Following a similar procedure with pineal extract (Hanson), growth is retarded but development is accelerated; hence precocious dwarfs result. The thymus and pineal glands appear to be concerned in growth and development of the young.

Problems in the Neurosurgery of Children (20 minutes).

CHARLES H. FRAZIER, Philadelphia.

OUTLINE. The paper deals for the most part with tumors of the cerebellum in children. It is a well-known fact that a very large proportion of gliomata involve the cerebellum and a large proportion of these occur in children. Discussion of medulloblastoma which, with few exceptions, is a lesion met with

in children alone. The medulloblastoma is one of the 4 commonest varieties of glioma and is peculiarly sensitive to radiation. For this reason it commands the attention of the neurosurgeon and of the radiologist as well.

Discussion opened by GEORGE J. FELDSTEIN, Pittsburgh.

Significant Factors Resulting from the Studies of the Emergency Child Health Committees of Pennsylvania (35 minutes).

SAMUEL McC. HAMILL, Philadelphia,
HENRY T. PRICE, Pittsburgh.

OUTLINE. This paper deals with certain outstanding features in the work of the Pennsylvania Emergency Child Health Committee, organized by and administered under the auspices of The Medical Society of the State of Pennsylvania. Special stress will be laid upon the significance of medical leadership and the value of coordinated effort. Evidence of the nutritional status of the children will be considered and certain implications to be drawn from the findings of the committee's work, as well as the importance of the work in educating the public respecting the value of periodic health examinations and urging their general adoption.

Discussion opened by JOSEPH S. BROWN, Lewistown;
CHARLES H. SMITH, Uniontown; ROBERT M. ALEXANDER, Reading.

Pediatric Therapeutics (20 minutes).

WILLIAM N. BRADLEY, Philadelphia.

OUTLINE. Report of Committee of the Philadelphia Pediatric Society to secure representation on the U. S. Pharmacopeia Revision Committee. In January, 1933, by action of the Board of Directors of the Philadelphia Pediatric Society, a committee was appointed to consider procedures for securing definite pediatric representation on the committee having in charge revision of the U. S. Pharmacopeia and National Formulary. As a preliminary step the committee contacted pediatric societies and pediatricists throughout the United States. The national pediatric bodies were also communicated with, and the sentiment from all these sources was overwhelmingly in favor of making efforts to secure such representation. A resolution requesting representation was unanimously adopted in 1934 by the American Pediatric Society, the American Academy of Pediatrics, and the Section on Pediatrics of the American Medical Association. The resolution was also unanimously approved by the House of Delegates of the American Medical Association. The American Academy of Pediatrics proceeded to contact the proper officers of the Revision Committee, advised them of the action of the national organization, and requested membership in that body. The Academy has appointed a small group to study the forthcoming Pharmacopeia and National Formulary for the purpose of making recommendations from the standpoint of pediatrics, if admitted to membership at the next convention.

Discussion opened by W. FREDERICK MAYER, Johnstown.

Modern Methods of Preventing Measles (10 minutes).
JOSEPH S. BAIRD and LLOYD W. PUMPHREY,
Pittsburgh.

OUTLINE. 1. Tunnick immune goat serum: What it is; method of administration; results; reactions; present status of this method. 2. Convalescent human serum: How long convalescent from measles; method of use; availability; results. 3. Adult normal blood serum: Method of use; results, which may be variable; reactions; permanency of immunity produced by this method; present status of this method. 4. Immune globulin (human): Newest method; brief history of development of this material; tables showing different results obtained under different circumstances; unconcentrated material as compared with concentrated; reactions; conclusions on efficiency of immune globulin.

How to Eradicate Diphtheria from Pennsylvania (10 minutes).

HENRY J. BENZ, Pittsburgh.

OUTLINE. Diphtheria is a contagious disease and is preventable. Therefore, it is the duty of the state and its subdivisions to protect people from it. Protection can be established by immunization as has been proven over the past 10 years. Toxoid is safe and effective. The material should be supplied to doctors free of charge and facilities given for those to be immunized who are unable to pay. Propaganda should be given both to the doctors and the public, and each child born should be contacted after 6 months of age to obtain immunization. Those refusing should be seen each year. Children entering school should have a certificate that they are either immune or have had the immunizing treatments. By methods such as these eradication of diphtheria may not be absolutely 100 per cent, but the number of cases could be held to a very low minimum.

Discussion opened by J. MOORE CAMPBELL, Harrisburg.

SECTION ON DERMATOLOGY

SPECIAL ROOM, FARM SHOW BUILDING

OFFICERS OF SECTION

Chairman—ROBERT L. GILMAN, 1930 Chestnut St., Philadelphia.

Secretary—FREDERICK M. JACOB, Jenkins Arcade, Pittsburgh.

Executive Committee—HERBERT J. SMITH, 3303 N. Seventeenth St., Philadelphia; STANLEY CRAWFORD, Westinghouse Bldg., Pittsburgh; EDWARD F. CORSON, Medical Arts Bldg., Philadelphia.

Reporter—MISS RUTH FOX, 238 S. Thirteenth St., Philadelphia, Pa.

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Tuesday, October 1, 2 p. m.

2 - 2:55 p. m.

Report of Executive Committee—Election of Section Officers.

A Practical Consideration of Carcinoma of the Skin (15 minutes).

CHARLES L. SCHMITT, Pittsburgh.

OUTLINE. A simple classification based on architecture is suggested to obviate misleading and confusing terminology. Both the clinical characteristics and the location of the carcinoma are important and determining factors in the method and type of therapy. Roentgen-ray dosage in malignancy and the results from proper dosage are discussed.

Discussion opened by LESTER HOLLANDER, Pittsburgh.

Resistant Syphilis (15 minutes).

SIGMUND S. GREENBAUM, Philadelphia.

OUTLINE. The term properly includes all cases in which the usual modern methods fail to obtain the clinical response obtained in the average case; to relapsing syphilis; resistance in relation to acute and chronic syphilis and to cutaneous, mucosal, osseous, cardiovascular, and "blood" syphilis. Possible explanations such as would be referable to the drug, the patient, the organism, or the end results of the disease. Methods of overcoming resistance, both apparent and real.

Discussion opened by CAROLL S. WRIGHT, Philadelphia.

The Patch Test in the Determination of Arsphenamine Sensitization (15 minutes).

HERMAN BEERMAN, Philadelphia.

OUTLINE. The technic and evaluation of the results of the patch tests with arsphenamine derivatives are detailed. From a study of the results of the tests performed on a series of patients (75) with and without arsphenamine dermatitis, the value and dangers of this procedure are discussed. The possibility of sensitization of the patient through the patch test, and the use of the test as a guide to treatment after an arsphenamine dermatitis are considered.

Discussion opened by HARRY S. ROBINSON, Baltimore (by invitation).

General Discussion (10 minutes).

3 - 3:55 p. m.

Industrial Dermatoses.

EARL D. OSBORNE, Buffalo, N. Y. (Guest).

OUTLINE. Types of industrial dermatoses. Differentiation between a dermatitis due to irritation and one due to hyper-

sensitivity. Presentation of a group of cases illustrating the various types of causes of industrial dermatitis. Mycotic infection in industry. Physicians and the industrial court.

4 - 4:55 p. m.

Diagnosis and Treatment of Pellagra (15 minutes).

GEORGE J. BUSMAN, Pittsburgh.

OUTLINE. From a study of 27 cases of pellagra, the symptoms are discussed with particular reference to gastro-intestinal and neurologic findings in relation to the skin manifestations. The result following the use of liver extract and yeast in these vitamin deficiencies is reported.

Discussion opened by STANLEY CRAWFORD, Pittsburgh.

Sporotrichosis (15 minutes).

LAWRENCE G. BEINHAEUER, Pittsburgh.

OUTLINE. Review of cases reported from Pennsylvania with a report of a new case in detail. Difficulties in differential diagnosis are stressed, with the necessity for laboratory confirmation.

Discussion opened by FREDERICK M. JACOB, Pittsburgh.

Pityriasis Rubra Pilaris (15 minutes).

MASHEL F. PETTLER, Beaver Falls.

OUTLINE. A clinical study of the result of vitamin medication and dietary control in Devergie's disease. Observation from the viewpoint of etiology regarding the diet previous to the onset of treatment.

Discussion opened by ROBERT L. GILMAN, Philadelphia.
General Discussion (10 minutes).

SECTION ON UROLOGY

SPECIAL ROOM, FARM SHOW BUILDING

OFFICERS OF SECTION

Chairman—GEORGE A. HOLLIDAY, Jenkins Arcade, Pittsburgh.

Secretary—DAVID P. McCUNE, 208 Masonic Temple, McKeesport.

Executive Committee—WILLARD H. KINNEY, 315 S. Seventeenth St., Philadelphia; THOMAS C. STELLWAGEN, JR.,* 220 S. Sixteenth St., Philadelphia; THOMAS L. DISQUE, Jenkins Arcade, Pittsburgh.

Reporter—MISS RUTH FOX, 238 S. Thirteenth St., Philadelphia, Pa.

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Wednesday, October 2, 2 p. m.

Fibrous Stricture of the Urethra (15 minutes).

JAMES L. WHITEHILL, Rochester.

OUTLINE. Causative factors in the formation of strictures, infection, trauma, and malformations. Methods used to prevent stricture formation in acute urethritis. Different types of strictures. Analysis of results in office practice. Methods used to correct the constricted channel. The use of rubber catheter to hasten the dissemination of scar tissue. Results to be hoped for without operative procedure. Treatment of some of the common complications of stricture. Summary.

Discussion opened by RALPH P. BEATTY, Uniontown.

* Deceased.

Cancer of the Prostate.

HENRY G. BUGBEE, New York, N. Y. (Guest).

OUTLINE. Review of cases treated during the past 15 years, emphasizing the importance of early diagnosis, pathologic study of all prostates, and individualization of cases as regards operative procedure.

The Treatment of the Chronically Infected Prostate (20 minutes).

LORENZO F. MILLIKEN, Philadelphia.

OUTLINE. Most obstinate urologic condition. Review and evaluation of most approved methods of treatment, including injection and transurethral section. Value of improved or adequate circulation with presentation of a new method for promoting it.

Discussion opened by JOSEPH C. BIRDSALL, Philadelphia.

Inflammation of the Urinary Bladder. A Case of Gangrenous Cystitis (20 minutes).

WILLIAM C. BRYANT, Pittsburgh.

OUTLINE. The fact that inflammation of the urinary bladder is so often secondary to other pathologic processes seems to have had an inhibitory effect on the study of this condition *per se*. Even after the most intensive study of the anatomy, nerve supply, and physiology of the normal bladder, there is a maze of difficulties when pathologic conditions arise. A brief review of a few of the unsolved problems of bladder functions both in health and disease. Report of case of gangrenous cystitis.

Discussion opened by BENJAMIN R. ALMQUEST, Pittsburgh.

The Etiology, Diagnosis, and Treatment of Hydronephrosis (Lantern Demonstration) (20 minutes).

JOSEPH C. BIRDSALL, Philadelphia.

OUTLINE. The subject of hydronephrosis is of greatest importance as it is one of the commonest pathologic lesions associated with diseases of the genito-urinary system. A study of the etiology of hydronephrosis comprises a most interesting array of causative factors. The condition is frequently found associated with lower and upper urinary tract anomalies, as well as acquired obstructive conditions of the lower and upper urinary tract. An accurate diagnosis is most essential for proper treatment.

Discussion opened by LORENZO F. MILLIKEN, Philadelphia.

The Experimental Production of Enlargement of the Prostate and Accessory Sex Organs in the Rat (15 minutes).

JAMES F. MCCAHEY, Philadelphia,

DAVID SOLOWAY, Philadelphia (by invitation).

OUTLINE. Paralysis of normal and castrated male rats results in marked enlargement of the prostate and other accessory sex organs of the normal animal. This is a study of these changes at different time intervals.

See also Scientific Exhibit.

Thursday, October 3, 1:30 p. m.

REPORT OF EXECUTIVE COMMITTEE—ELECTION OF SECTION OFFICERS

Ureteral Transplants (Lantern Demonstration) (15 minutes).

GEORGE V. FOSTER, Pittsburgh.

OUTLINE. History of procedure. Description of various methods; older methods; Coffey technic No. 1; Mayo-Coffey technic; submucous uretero-intestinal anastomosis; Coffey technic No. 2 with modifications. Case reports.

Discussion opened by WILLARD H. KINNEY, Philadelphia.

Vesical Diverticulum (Lantern Demonstration) (20 minutes).

LEON HERMAN and LLOYD B. GREENE, Philadelphia.

OUTLINE. Diverticula of the urinary bladder. Analysis of a series of 20 large diverticula of the bladder treated by extravesical resection. Report of a case of infiltrating carcinoma of a diverticulum. Final report of a case of dumb-bell calculus in association with vesical diverticulum. Suprapubic versus transurethral resection of the accompanying obstruction at the vesical outlet.

Discussion opened by CARLYLE HAINES, Sayre.

Calculi Formation in Fracture or Traumatic Group (15 minutes).

EDWARD J. MCCAGUE, Pittsburgh.

OUTLINE. Introduction. A large group of patients, stone-free on admission, with simple or compound fractures, develop calculi during their hospitalization, many with grave damage to one or both kidneys, the latter overshadowing in gravity the lesion for which they were admitted. Examination of the incidence and alleged causative factors. Recitation of some personal experiences. In the light of present knowledge as to calculus formation, what can be done to prevent this grave complication?

Discussion opened by ALEXANDER RANDALL, Philadelphia.

Urinary Hemorrhage—A Symptom not a Disease: Particular Reference to the Importance of Early Diagnosis of Bladder Tumors (15 minutes).

ELMER HESS, Erie.

OUTLINE. Hematuria is not a disease but is the first indication of serious pathology in the urinary tract. The time and

appearance of bleeding in reference to urination is merely suggestive as to the location of the lesion. Any urinary tract bleeding should be immediately investigated by a complete urologic examination, and the source of the bleeding ascertained. More often it is the first symptom of new growths in the urinary tract and these should be immediately eliminated by cystoscopy and pyelography. There is no such clinical entity as essential hematuria. There is always a reason for hematuria and every diagnostic effort should be made to ascertain the cause. Profuse, painless hematuria in the vast majority of instances is caused by bladder tumor. All of these are either malignant or potentially so. The earlier the diagnosis is made, the better the chance is for cure. A brief résumé of the treatment of the various types of bladder tumor.

The Diagnosis and Treatment of Cancer of the Bladder by Means of the Roentgen Ray (Lantern Demonstration) (15 minutes).

GEORGE E. PFAHLER, Philadelphia.

Discussion of the above 2 subjects opened by THEODORE FETTER, Philadelphia.

The Diagnosis of Neurogenic Bladder by Means of a Cystometer (Lantern Demonstration) (20 minutes).

MAURICE MUSCHAT, Philadelphia.

OUTLINE. A neurogenic bladder does not give subjective symptoms until the late stages. The cystoscope is of diagnostic value in these late stages only. Early and progressive stages of a neurogenic bladder can be diagnosed by the cystometer. There are 3 factors determined by the cystometer: (1) Desire to void, (2) pressure curve, (3) maximal voluntary pressure. These 3 factors are all altered in a neurogenic bladder of hypertonic or hypotonic type.

Discussion opened by ABRAHAM RUBENSTONE, Philadelphia.

OFFICERS' DEPARTMENT

WALTER F. DONALDSON, M.D., *Secretary*, 8104 Jenkins Arcade, Pittsburgh, Pa.

THE 1935 ROSTER

The annual Roster of the members of The Medical Society of the State of Pennsylvania has just been printed and distributed to the officers and various committee chairmen of our State and county medical societies. This list is correct to July 15, 1935, and contains the names and addresses of the members of our 60 component societies listed alphabetically by counties as well as the names of their officers and committeemen. Included also will be found the names of the officers, members of the Board of Trustees and committees of the State Society, as well as its past presidents and secretaries; a list of the annual meeting places of the State Society since 1848 with registered attendance at each meeting; and the names of members who have died since July 1, 1934.

A copy of the Roster will be forwarded to any member upon request made to the office of the Secretary, 8104 Jenkins Arcade, Pittsburgh, or the office of the JOURNAL, 230 State Street, Harrisburg. The published list each year is bound with the PENNSYLVANIA MEDICAL JOURNAL for the fiscal year and filed in the archives of the Society.

REPORTS—AFTER AND BEFORE

Next month's issue of the JOURNAL will contain reports of the officers and the standing and special Committees of our State Society. Most of them will be addressed to the President and the House of Delegates. They are published in advance of the 1935 meeting of the House in order that members of the society who read such may convey to the delegates from their own county medical society their views on the administrative topics discussed. Advice given to county society representatives might be more effective if it was influenced by a reading also of the transactions of the 1935 House of Delegates of the A. M. A. (See *Journal A. M. A.*, June 22 and 29.)

APPEALING PUBLICITY

During May, 1935, Miss Ruth Ayers, a special writer for the Pittsburgh *Press*, a Scripps-Howard daily newspaper, wrote a series of illustrated articles descriptive of the facilities of a number of the hospitals of the Pittsburgh district.

When approached by a representative of the Public Relations Committee of the Allegheny County Medical Society with information from the report of the National Committee on the Costs of Medical Care to the effect that only one person in 17 receives hospital treatment in the course of a year, the *Pittsburgh Press* readily agreed to have Ruth Ayers write for the *Press* on the activities of physicians in the alleviation of human suffering.

As a result, a series of 5 1,000-word stories, written appealingly by Miss Ayers, were vividly illustrated and given a wide spread on the first page of the second section of 5 successive issues of the *Press*. Each story dealt with the life work of a well-known local physician who had been in practice at least 50 years.

It is said that the reaction of the readers of the *Pittsburgh Press* has been such as to result in the Scripps-Howard Publishing Company deciding to have prepared a similar series of articles regarding physicians in the 26 other cities in which they publish daily newspapers.

The kindly relations which the organized medical profession has enjoyed with the newspapers of Allegheny and other Pennsylvania counties is typified by the following, which appeared in connection with each story about "The Doctor" in the *Pittsburgh Press*:

"In his dealing with human life, the doctor has unfolded before him all the phases of human existence. Much has been said and written about clinics and hospitals in spite of the fact that only a small percentage of the alleviation of human suffering is actually performed in these institutions. Only 10 per cent of all the patients treated by physicians in private practice are hospitalized. In the other cases the doctor makes a single-handed fight to save lives, without thought of personal gain. In an effort to portray some of the activities of doctors who have been in service for humanity more than half a century, this series is written with the coöperation of the Allegheny County Medical Society."

INTERESTING EMERGENCY MEDICAL RELIEF STATISTICS

So much interest is attached to the discussion of figures in connection with emergency medical relief service in Pennsylvania that we have prepared the following, which are authentic totals for the combined months of March, April, and May, 1935.

The combined expenditures for medical care, which include a total of 376,029 approved medical, dental, nursing, and pharmaceutical orders for the 3 months, totaled \$1,139,636. Of this amount physicians received \$865,577.

In March, April, and May, total families on direct relief averaged 461,781; during these

months a total average of \$288,526 was paid per month to the participating physicians. In Allegheny and Philadelphia Counties combined the average number of families on direct relief was 188,629, and the doctors in the 2 counties combined received an average total per month of \$90,486. In the balance of the state, therefore, there was an average of 273,152 families on relief and the participating physicians outside of Allegheny and Philadelphia counties received \$198,039 per month for March, April, and May.

We estimate that an average of 4000 physicians per month participated outside of Allegheny and Philadelphia counties and that they received an average of \$50 per month during March, April, and May. We estimate that an average of 2500 physicians participated in the emergency medical relief service in Allegheny and Philadelphia counties combined during each month of the quarter (March, April, May) and that they received on an average \$35 per month. It is realized that in several of the more populous industrial counties of the state a few physicians practicing in districts where the emergency relief demand is heaviest receive each month a very considerable percentage of the total emergency relief payments to doctors.

In any event the total for the quarter (\$1,139,636) paid for medical service on a fee basis may very closely approach the 3 per cent of total relief payments requested in the following resolution approved by the Advisory Committee to the State Emergency Relief Board and the Board of Trustees at the latter's May 14, 1935, meeting:

WHEREAS, The Director of Emergency Medical Relief, in order that the medical relief program of this state might be kept within the economic limitations prescribed by the State Emergency Relief Board, has found it necessary (1) to cut many physicians' bills very materially below the amounts approved by the County Medical Society Advisory Committee; and (2) to prescribe regulations limiting the granting of medical orders in many illnesses, and

WHEREAS, We believe it is impossible for the individuals on emergency relief in this State to receive enough proper medical attention under the present economic limitations of the program, excepting at the expense of the medical profession, and

WHEREAS, We believe that the care of the health of the individuals on emergency relief is the financial responsibility of the state and not of the medical profession, be it

Resolved, That we, the Cambria County Medical Society, request the Medical Advisory Committee of The Medical Society of the State of Pennsylvania to the State Emergency Relief Board to take action at once looking toward the increase of the amount of emergency relief funds allocated by the State Emergency Relief Board for medical relief to at least 3 per cent of the total relief funds, to be used for the more adequate medical care of the individuals on emergency relief.

We hope to be able to publish in the September issue of the JOURNAL the revised Rules and Regulations governing emergency medical care as provided in the homes of Pennsylvania recipients of unemployment relief.

Members interested may find satisfaction in studying the following self-explanatory averages:

Averages for Months of March, April, and May, 1935

County	Families on direct relief	Medical orders approved	Amount paid to participating physicians	Average cost per medical order
Adams	798	66	\$577	\$9.37
Allegheny ..	82,558	13,662	67,603	4.94
Armstrong ..	3,119	501	2,683	5.23
Beaver	6,606	1,040	6,110	5.79
Bedford	2,366	343	1,942	5.66
Berks	6,723	751	5,107	6.88
Blair	4,887	508	5,206	6.11
Bradford ...	1,314	34	249	4.96
Bucks	2,245	280	1,629	5.94
Butler	3,367	169	1,228	5.11
Cambria	8,254	1,368	9,161	6.68
Cameron ...	167	2	18	7.00
Carbon	3,118	359	1,111	4.53
Center	2,340	446	2,295	5.43
Chester	3,225	391	2,154	5.36
Clarion	1,276	285	2,294	8.29
Clearfield ...	6,598	1,575	7,466	4.83
Clinton	1,597	493	2,705	5.70
Columbia ...	3,339	443	2,710	6.18
Crawford ..	2,256	150	718	4.85
Cumberland .	2,295	207	1,366	6.69
Dauphin	6,173	577	4,404	7.57
Delaware ...	7,038	492	3,313	6.72
Elk	1,077	70	600	5.45
Erie	8,068	900	3,298	3.68
Fayette	14,027	3,467	12,398	3.53
Forest	212	5	87	11.39
Franklin	2,250	188	1,531	8.27
Fulton	532	16	146	5.98
Greene	2,221	367	2,011	5.55
Huntingdon .	2,101	293	1,874	4.23
Indiana	3,614	499	2,324	4.74
Jefferson ...	2,711	435	2,282	4.67
Juniata	665	67	439	6.44
Lackawana .	18,025	2,157	12,235	5.68
Lancaster ..	6,961	785	5,134	6.48
Lawrence ...	6,116	485	1,705	3.35
Lebanon	1,910	243	2,010	8.78
Lehigh	7,428	691	4,445	4.24
Luzerne ...	24,824	2,658	14,046	5.19
Lycoming ...	4,932	971	5,009	5.22
McKean	1,649	201	1,291	6.45
Mercer	4,767	815	4,809	6.05
Mifflin	1,529	311	1,829	5.84
Monroe	1,169	116	842	7.22
Montgomery .	5,899	706	4,685	6.48
Montour ...	906	125	692	5.43
Northampton.	7,990	944	4,344	4.60
Northumber- land	7,411	866	5,146	6.01
Perry	753	99	620	5.72
Philadelphia .	106,072	3,937	22,884	5.91
Pike	221	5	51	5.30
Potter	1,017	00	00	00
Schuylkill ..	14,216	1,198	7,924	6.77
Snyder	1,023	112	782	7.14

County	Families on direct relief	Medical orders approved	Amount paid to participating physicians	Average cost per medical order
Somerset ...	4,075	499	\$3,217	\$6.57
Sullivan	280	36	318	6.33
Susquehanna .	1,499	142	920	6.32
Tioga	957	16	200	8.85
Union	837	83	575	6.95
Venango ...	3,483	664	3,151	4.77
Warren	1,840	210	1,259	6.03
Washington .	7,776	930	6,115	6.53
Wayne	970	63	439	6.67
Westmoreland	12,065	1,968	8,997	4.49
Wyoming ...	764	66	392	3.74
York	3,243	439	2,658	4.03
Total	461,781	53,668	\$288,526	\$5.38

Considering that all of the headings and figures in the table above express the monthly average for the quarter ending May 31, 1935, the opportunity is presented for superficial or critical comparisons between the 67 counties.

Marked activities in the newly created state PWA bureau designed to absorb in works relief projects 60 per cent of Pennsylvania families now on direct relief and a proportionate reduction of Federal funds for the latter strongly suggest an immediate if not permanent decline in funds available for direct relief, the latter form alone providing for emergency medical service.

MATCHING STATE DOLLARS WITH FEDERAL DOLLARS TO CENTRALIZE HEALTH CONTROL

Attention is drawn to the subjoined brief abstract of a report very recently received from the Bureau of Health and Public Instruction of the American Medical Association. We surmise that representatives of the A. M. A. entered the conference when convinced that Federal social legislation was about to be adopted which would centralize important state preventive and corrective health measures in the Children's Bureau of the United States Labor Department as well as in the United States Public Health Service.

Representatives of county and state medical societies should at once become interested in the local administration of the health services to be provided or augmented by these "matched" dollars which are to be collected eventually from the taxpayers, among whom are included all practicing physicians.

As suggestive of the opportunities not only for public service but also for the development by younger practitioners of a congenial form of practice, we reproduce the following from an address delivered by Dr. F. F. Borzell of Philadelphia before the 1935 graduating class of the University of Pittsburgh School of Medicine:

There has been considerable stress laid upon the statement that the medical profession is overcrowded. If one bases this statement solely on the basis of distribution of general practitioners per unit of population it is probably true. If based, however, on geographic distribution I doubt the truth of this statement. If, however, one considers the potentialities for medical service in the fields of public health, preventive medicine, hygiene, *etc.*, at the risk of criticism and contradiction I state that we have ample room for many more physicians. There can be no doubt that infinitely greater advances in public health and preventive medicine could be made if we could but replace thousands of so-called sociologists and Ph. D.'s without any real medical qualifications engaged in attempts to direct activities of a truly medical nature. Could we but replace them with physicians who have acquired the technical training of these individuals, real progress would be made, and not at the expense of the medical profession or the taxpayer. The reason for this situation lies probably at the door of the medical profession itself in that we have been so completely engrossed in our efforts to conquer disease *per se* and alleviate the individual sufferer that we have literally locked ourselves into the sickroom, permitting in the meantime a usurpation of our prerogatives and trusts by those not best qualified.

In contrast with the above comments made by the chairman of the Committee on Medical Economics of our State Society at the April meeting of the Allegheny County Medical Society, we offer the following comments made by C. E. A. Winslow, a doctor of public health, at the thirteenth annual conference of the Advisory Council of the Milbank Memorial Fund:

I have always felt that the lack of professional interest in public health work is not due to the small financial compensation, but primarily to the fundamental attitude of the American people toward government, to the traditional idea that government is something that some cheap politician does, and not a worthy aim for a respectable citizen. There are plenty of European countries which relatively do not pay their public health officers any better and relatively do not provide any more secure tenure of office, but people go into public health there because when a man gets a job as a health officer he considers it an honorable position. The attitude here is, "What is the matter with the poor fellow? Couldn't he earn a living any other way?"

We are in the process of a fundamental change in that attitude. The social and economic crisis through which the world is passing has made it clear that public service is not an excrescence which should be minimized as far as possible, but is essential to the life of any people in this complex, modern world. I think one can see already that the attitude of the American people is changing, and, as it changes, we will have more men going into public health. As they do go into public health, they will not perhaps realize, but we here can fully realize, how much of the work which they are going to do will have been moulded by this Fund.

All of the above suggests the need for activity, and the attention of the officers of our State Society and of our Committee to Confer with Governmental Health Agencies has been drawn

to the inherent experimental health phases of the so-called Federal social security bill.

No one knows what may develop in Pennsylvania from the matched governmental dollars, but the commonwealth is fortunate in having at this time a Secretary of Health who is capable of sympathetically interpreting and administering health activities as medical problems.

Abstract of A. M. A. Report

Anticipating the passage by Congress of the Social Security Act, conferences were called at Washington by the United States Public Health Service and the United States Children's Bureau for June 17, 18, and 19, 1935. These conferences were attended by 2 trustees of the American Medical Association and by the directors of the Bureaus of Medical Economics and Health and Public Instruction. Out of these conferences came plans which have to do with maternal and infant welfare and the care of crippled children to be administered by the United States Children's Bureau, and with plans which have to do with the general development of state and local public health work to be administered by the United States Public Health Service.

The report of the Committee on Qualifications for Health Officers and Health Personnel proposed provisional and temporary standards for medical officers, public health engineers, nurses, sanitarians, and sanitary officers as qualifications for public health services, which included the following:

MEDICAL OFFICERS

I. Basic educational requirements—

- A. Eligibility to examination for medical licensure in the state where service is to be rendered.
- B. Not less than one year of clinical experience gained preferably in a hospital of acceptable standards providing 3 months' hospital work in pediatrics and a similar period in infectious diseases.

II. Special qualifications—

- A. Pending the development of a reserve of personnel having graduate training in public health work, the following minimum qualifications shall apply as a standard in the selection of medical officers of health for jurisdictions of less than 50,000:
 1. Candidates for appointment shall be not more than 35 years of age when first specializing in public health work. Preference shall be given to candidates having had one or more years' experience in the general practice of medicine.
 2. Personnel selected shall already have had or shall agree to take before assuming duty not less than 3 months of special training in public health, of which not less than 2 months shall be organized instruction in an approved academic institution and one month in field apprenticeship in an approved local health organization.
- B. For health officers of jurisdictions having populations of more than 50,000, for staff positions with state health departments, and for positions having the responsibility of supervisory and consultant service, the following standard of qualifications shall apply:

1. Not less than one year in residence at a recognized university school of public health and the satisfactory completion of a course of study in the fundamental subjects in preventive medicine.
2. Not less than 6 weeks of field experience under proper supervision in a suitable health organization.

III. Exceptions to the foregoing standards for medical officers may be made only when candidates for positions have, through experience and practical training, proved ability to perform successfully the duties of the position for which application is made.

IV. Standards for health officers of jurisdictions having less than 50,000 population shall be progressively advanced as rapidly as training facilities become sufficiently well developed and adequate reserves of trained personnel are established. It is doubtful that the time is near at hand when a year's resident training in a recognized university school of public health may be required of students for positions in the smaller health jurisdictions, but progressive improvement of personnel training may be secured through graduate training subsequent to employment as well as by increase of personnel. Preference should be given to medical officers meeting the higher standard of qualifications outlined under Section II.

AN ACT REGULATING THE SALE OF HYPNOTIC, ANALGESIC AND REDUCING DRUGS

On July 19, 1935, Governor George H. Earle signed House Bill No. 2742 (Senate Bill No. 1480), thereby legalizing the regulation of the sale of hypnotic, analgesic, and reducing drugs. The Division of Narcotic Drug Control in the Department of Health has not completed the preparation of rules and regulations governing the enforcement of this act. Since the act, however, becomes effective immediately, it is reprinted here for the guidance of our members.

AN ACT (No. 407)

To regulate the sale of certain hypnotic, analgesic and body-weight reduction drugs in the interest of public health.

Section 1. *Be it enacted by the Senate and House of Representatives of the Commonwealth of Pennsylvania in General Assembly met and it is hereby enacted by the authority of the same* That the following words and phrases shall for the purpose of this act have the meanings respectively ascribed to them in this section except where the context clearly indicates a different meaning.

"Hypnotic drug" shall mean the drugs known as barbitol and the salts of barbituric acid also known as malonylurea or any derivative or compounds or any preparations or mixtures thereof possessing hypnotic properties or effects.

"Other hypnotic drug or analgesic drug or body-weight reducing drug" shall be held to mean and include sulphomethylmethane (trional) or sulphomethane (sulphonal) or diethylsulphon diethylmethane (tetronal) or bromdiethylacetylcarbamide (carbromal) by whatever name they may be known or paraldehyde or any derivatives or compounds or preparations or mixtures thereof possessing hypnotic properties or effects and chloral or chloralhydrate or chlorbutanol or any compounds or mixtures thereof possessing hypnotic properties or effects or phenylcinchoninic acid (cinchophen) an analgesic anti-rheumatic drug or any derivative or compound including atophan and atquinol or dinitrophenol a metabolic accelerator body-weight reduction drug or any dinitro compounds including dinitrophenol sodium and dinitroresol sodium when the drugs herein defined or any derivatives or compounds or mixtures or preparations thereof.

Section 2. No hypnotic drug or analgesic or body-weight reduction drug as defined herein shall be sold at retail or dispensed to any person except upon the written prescription of a duly licensed physician, dentist or veterinarian compounded or dispensed by a registered pharmacist or under the immediate personal supervision of a registered pharmacist and no pharmacist shall dispense any such drug without affixing to the container in which the drug is sold or dispensed a label bearing the name and address of the pharmacist, the date compounded and the consecutive number of the prescription under which it is recorded in his prescription files together with the name of the physician, dentist, or veterinarian prescribing it, Provided That the provisions of this section of this act shall not apply to a duly licensed physician, dentist or veterinarian, Provided however, That they keep a record of the amount of such drugs purchased and a dispensing record showing the date, name of, the quantity of the drugs dispensed, and the name and address of the patient. No physician, dentist, or veterinarian shall dispense any such drug without affixing to the container in which the drug is sold or dispensed, a label bearing the name and address of the dispenser, the date dispensed, the name and address of the patient and the directions for the use of the drug by the patient.

Section 3. No manufacturer, pharmacist, jobber, dealer in drugs, or any other person shall sell or have in his possession any hypnotic drug or analgesic drug or body-weight reduction drug defined herein unless the container bears a label securely attached thereto stating conspicuously the specific name of the barbitol or other hypnotic drug or analgesic drug or body-weight reduction drug and the proportion of amount thereof. Such label shall not be necessary when such a drug is dispensed by a pharmacist upon a prescription or dispensed by a physician, dentist or veterinarian and the container is labeled in the manner described in section 2 hereof.

Section 4. The provisions of this act shall be enforced by the Department of Health of the Commonwealth of Pennsylvania and for that purpose the Secretary of Health is hereby authorized to make such rules and regulations as may be deemed necessary for the proper enforcement of this act and to employ such assistants and employees as in said Secretary of Health's opinion may be necessary and to fix their compensation.

Section 5. Any person who shall violate or fail to comply with any of the provisions of this act shall be guilty of a misdemeanor and upon conviction shall be sentenced to pay a fine of not less than twenty-five dol-

lars (\$25.00) nor more than fifty dollars (\$50.00) for the first offense, not less than fifty dollars (\$50.00) nor more than one hundred dollars (\$100.00) for the second offense and not less than one hundred dollars (\$100.00) for the third and each subsequent offense. If the violation is by a corporation, copartnership or association, the officers and directors of such corporation or the members of such copartnership or association, their agents and employees with guilty knowledge of the fact shall be deemed guilty of a violation of the provisions of this act to the same extent as though said violation were committed by them personally.

Section 6. This act shall become effective immediately upon final enactment.

FINAL LEGISLATIVE BULLETIN ON THE REGULAR SESSION, PENNSYLVANIA STATE LEGISLATURE OF 1935

July 11, 1935

To Chairmen, Public Health Legislation Committees, Component County Medical Societies—with copy to President and Secretary.

The following is a list of the bills introduced which affect public health and the medical profession of the Commonwealth of Pennsylvania:

House Bill No. 58, authorizing removal of placards by physicians and constables. Referred to Committee on Public Health and Sanitation, Jan. 15. Indefinitely postponed.

H. B. No. 100, Stream Pollution Bill. Referred to Committee on Public Health and Sanitation, Jan. 15. Indefinitely postponed.

H. B. No. 188, the Wilson Sickness Insurance Bill. Referred to Committee on Insurance. After public hearing this bill was indefinitely postponed.

H. B. No. 271, authorizing the construction of a state tuberculosis sanatorium by the Department of Property and Supplies. Referred to Committee on Public Health and Sanitation, Jan. 23. Indefinitely postponed.

H. B. No. 294, amending Vital Statistics Law. Referred to Committee on Public Health and Sanitation. Indefinitely postponed.

H. B. No. 297, creating a separate Board of Chiroprody Examiners. Referred to Committee on Education, Jan. 28. Indefinitely postponed.

H. B. No. 494, creating a separate Board of Chiropractic Examiners. Referred to Committee on Education, Feb. 5. Indefinitely postponed. After hearing, Mar. 31, reported out of Committee on Education as amended Apr. 23. Passed first reading, Apr. 24. Passed second reading with amendments, Apr. 29. Recommitted to the Committee on Public Health and Sanitation, Apr. 29. (Vote 98 to 96.) Motion to discharge Committee from further consideration of the Bill defeated, May 22. (Vote 113 to 44.)

H. B. No. 889, regulating sleeping by persons in dining cars. Referred to Committee on Public Health and Sanitation, Feb. 19. Defeated on final passage, Apr. 10. (Vote 68 to 74.)

H. B. No. 909, providing for reimbursement for hospitals on account of expenses of care of indigent persons injured in motor vehicle accidents. Referred to Committee on Public Health and Sanitation, Feb. 19. Finally recommitted to the Committee on Highways, Apr. 24. Indefinitely postponed.

H. B. No. 944, amending the Mental Health Act of 1923, regulating the payment by the counties of the cost of care of mental patients. Referred to Committee on Judiciary General, Feb. 19. Indefinitely postponed.

H. B. No. 951, an act preventing dentists, physicians, osteopathic physicians, chiropractors, and drugless therapists from advertising their professions. Referred to Committee on Education, Feb. 19. Indefinitely postponed. This bill called for fine on first offense only. Was apparently submitted by an advertiser with selfish interests, hoping after payment of one fine additional fines could not be legally assessed.

H. B. No. 978, creating a new limited classification of beauty operators. Referred to Committee on Education, Feb. 20. Passed the House on third reading and was recommitted to Committee on State Government in the Senate, June 19, where it was indefinitely postponed.

H. B. No. 1020, an act to provide for necessary medical attention to indigent persons who may be assumed to be in danger of suffering from hydrophobia. Referred to Committee on Agriculture, Feb. 20. Indefinitely postponed.

H. B. No. 1023, an act prohibiting the sale and distribution by means of vending machines of medicines, drugs, poisons, and articles intended for use in the mitigation, treatment, or cure of disease in man or animal. Passed the House and Senate and was approved by the Governor, May 1. This bill was introduced by the Pennsylvania Pharmaceutical Association.

H. B. No. 1025, creating a board for the purpose of distribution of unclaimed human bodies for scientific purposes. Passed the House, Mar. 6. Referred to the Committee on Public Health in the Senate, Mar. 11. Indefinitely postponed.

H. B. No. 1081, an act to provide for the issuance and acceptance of certificates from duly licensed optometrists as to ocular and visual efficiency. Referred to Committee on Education, Feb. 26. Indefinitely postponed.

H. B. No. 1082, an act further defining optometry. Referred to the Committee on Education, Feb. 26. Reported as committed, Mar. 27. Passed first reading, Apr. 1. Passed second reading with amendments, Apr. 3. Passed third reading, Apr. 8. Defeated on final reading. (Vote 68 to 100.) Reconsidered, Apr. 9. Postponed, Apr. 9. Passed third reading with amendments, Apr. 15. Passed finally, Apr. 16. In the Senate referred to Committee on Public Health, Apr. 16. Reported as amended, Apr. 24. Passed first reading, Apr. 24. Passed second reading with amendments, Apr. 29. Passed third reading with amendments, Apr. 30. Vote on third reading reconsidered, May 15. Recommitted to Committee on Public Health, May 15. Rereported as committed, May 21. Vote on second reading reconsidered, May 27. Postponed for the present, May 27. Dropped from the calendar, June 3.

H. B. No. 1199, amendments to the Workmen's Compensation Act. Referred to Committee on Labor, Mar. 5. Reported as committed, Mar. 20. Passed first reading, Mar. 21. Recommitted to the Committee on Labor, Mar. 21. Rereported as amended, Apr. 24. Passed second reading with amendments, Apr. 29. Postponed for the present, Apr. 30. Passed third reading; final passage, May 1. In the Senate, referred to the Committee on Labor and Industry. Indefinitely postponed. Motion to discharge Committee from further consideration of the bill defeated, June 18. (Vote 21 to 27.) These amendments were the Administration's Workmen's Compensation Amendments including amendments

emanating from the very able work of our Society's Committee on Workmen's Compensation Laws.

H. B. No. 1220, an act to amend the Industrial Rehabilitation Law by providing for furnishing artificial limbs to children over 10 years of age. Passed the House, Mar. 12. Passed the Senate, May 21. Vetoed by the Governor, May 29. Veto message laid on table, June 3.

H. B. No. 1262, an act making hospital records admissible in evidence. Referred to Committee on Judiciary General, Mar. 5. Indefinitely postponed.

H. B. No. 1311, an act authorizing school districts to provide for the treatment of diseased tonsils of pupils and to furnish glasses. Referred to Committee on Education, Mar. 6. Indefinitely postponed, Mar. 27.

H. B. Nos. 1337 and 1338, Housing Bills. Referred to Committee on Public Health and Sanitation and indefinitely postponed.

H. B. No. 1414, an act requiring the Department of Health to establish a system for the registration of marriages, births, and deaths. Referred to the Committee on Public Health and Sanitation, Mar. 7. Indefinitely postponed.

H. B. No. 1521, an act imposing certain requirements on hospitals receiving state aid. This requires that a regularly graduated intern be on duty at all times in hospitals of 100 beds or more. Passed the House and the Senate. In the hands of the Governor at present.

H. B. Nos. 1643 and 1644, acts providing for the creation of public welfare districts. These acts were originally proposed by the Public Charities Association of Pennsylvania. Referred to Committee on Counties and State Government, Mar. 19. Indefinitely postponed.

H. B. No. 1730, an act requiring state-aided hospitals to admit any indigent person who is seriously ill. Passed the House and referred to Committee on Public Health in the Senate, Apr. 3. Indefinitely postponed.

H. B. 1759, an act defining drugless therapy and regulating the licensure and practice thereof. Referred to Committee on Education, Mar. 26. Indefinitely postponed.

H. B. No. 1789, changing the qualifications for registration of nurses. Passed the House, Apr. 9. Passed the Senate, Apr. 22. Approved by the Governor, Apr. 29.

H. B. No. 1839, an act requiring state-aided institutions rendering free dental services to give preference to those cases referred to them by their own districts. Referred to Committee on Public Health and Sanitation, Mar. 27. Indefinitely postponed.

H. B. No. 1904, an act to amend the Administration Code of 1929 by increasing the number of members of the Workmen's Compensation Board from 3 to 5, designating that one doctor of medicine be appointed. Passed the House, Apr. 30. Passed the Senate, June 20. Communication for concurrence laid on table, June 20.

H. B. No. 1959, the Epstein Sickness Insurance Bill. Referred to the Committee on Public Health and Sanitation. After public hearing, indefinitely postponed.

H. B. No. 2278, an act to provide for sexual sterilization of mental defectives. Referred to Committee on Judiciary General, Apr. 17. Indefinitely postponed.

H. B. No. 2304, an act to amend the act for the treatment and prevention of mental diseases. Referred to Committee on Counties, Apr. 17. Indefinitely postponed.

H. B. No. 2348, an act fixing the liability for the expense of care and treatment of patients in medical and surgical hospitals maintained by the commonwealth.

Referred to the Committee on Judiciary General, Apr. 17. Indefinitely postponed.

H. B. No. 2397, an act defining and providing for the licensing of confectionery factories and wholesale confectioners' warehouses. Passed the House and Senate. In the hands of the Governor at present.

H. B. No. 2500, amending the Osteopathic Practice Law. Referred to Committee on Education, Apr. 18. Indefinitely postponed.

H. B. No. 2502, an act legalizing necessary abortions. Referred to Committee on Judiciary General, Apr. 18. Indefinitely postponed.

H. B. No. 2548, an act for the prevention of blindness, requiring the reporting of cases of inflammation of the eyes of infants. Passed the House, June 18. Referred to Committee on Public Health in the Senate. Indefinitely postponed.

H. B. No. 2593, an act authorizing school districts to provide for the treatment or removal of diseased tonsils and adenoids of pupils, and to furnish glasses. Referred to Committee on Education, Apr. 22. Indefinitely postponed.

H. B. No. 2637, an act imposing duties upon the Department of Health, providing for the furnishing of antirabic treatment without charge in certain circumstances. Passed the House, May 21. Recalled from the Governor, June 7. Laid on the table, June 11.

H. B. No. 2674, amendment to the Mental Health Act of 1923, by providing for the boarding out of certain patients in state mental hospitals. Passed the House, May 15. Passed the Senate, June 20. At present in the hands of the Governor.

H. B. No. 2729, an act regulating bathing places, swimming pools, bath houses, *etc.* Referred to Committee on Public Health and Sanitation, Apr. 22. Indefinitely postponed.

H. B. No. 2742, an act to regulate the sale of certain hypnotic, analgesic, and body-weight reduction drugs, in the interest of public health. Passed the House, May 28. Passed the Senate, June 20. Signed by the Governor, July 19. This is the bill regarding the barbituric acid preparations advised by our 1934 House of Delegates (see page 902, this issue).

Senate Bill No. 18, an act to provide for the hospitalization of tuberculous patients in state and state-aided general hospitals when state-owned tuberculosis institutions are unable to provide therefor. Passed the Senate, Feb. 26. Recommended to Committee on Appropriations in the House, Apr. 9.

S. B. No. 86, creating a board for the distribution of unclaimed human bodies for scientific purposes. Passed the Senate, Feb. 26. Postponed in the House, June 11.

S. B. No. 92, an act regulating adulteration of ice cream. Referred to Committee on Public Health, Jan. 21. Indefinitely postponed.

S. B. No. 273, Stream Pollution Bill. Referred to Committee on Forests and Waters, Feb. 18. Indefinitely postponed, June 12.

S. B. No. 373, an act exempting from levy or sale on execution or distress for rent, dental fixtures and equipment leased, loaned, hired, or conditionally sold. Referred to Committee on Judiciary General, Feb. 25. Indefinitely postponed.

S. B. No. 400, another act concerning adulteration of ice cream. Referred to Committee on Judiciary Special, Feb. 26. Indefinitely postponed.

S. B. No. 417, an act creating a Board of Naturopathic Education and Licensure in the Department of

Public Instruction. Referred to Committee on Public Health, Feb. 26. Indefinitely postponed.

S. B. No. 490, an act providing for the sterilization of inmates of certain public institutions. Referred to Committee on Judiciary General, Apr. 15. Indefinitely postponed.

S. B. No. 769, amending the act relating to the right to practice medicine and surgery in the Commonwealth of Pennsylvania. Passed the Senate, Apr. 22. Passed the House, June 21. Signed by the Governor. This is the bill amending the Medical Practice Act as suggested by the Board of Medical Education and Licensure and approved by the Board of Trustees of The Medical Society of the State of Pennsylvania (see April PENNSYLVANIA MEDICAL JOURNAL).

S. B. No. 1014, an act relating to dentistry. Re-committed to Committee on Public Health, Apr. 30. Indefinitely postponed.

S. B. No. 1127, an act creating a Chiropractic Examining Board. Referred to Committee on Public Health, Apr. 29. Indefinitely postponed.

S. B. No. 1459, the Senate Workmen's Compensation Amendment. Passed the Senate, June 18. Referred to Committee on Labor in the House, June 19. Indefinitely postponed.

The following resolutions were introduced in the House:

Resolution No. 163, requesting proof of statement concerning national chiropractic organization, relative to House Bill No. 494, made in the *Weekly Roster and Medical Digest* of the Philadelphia County Medical Society.

Resolution No. 171, requesting amendments to Rule 27 creating Standing Committee on Professional Licensure.

Resolution No. 173, requesting committee to investigate the practices of the State Board of Pharmacy.

Resolution No. 174, authorizing the Governor to appoint a commission of 9 persons to study and investigate illness and conditions of the sick in this commonwealth. This commission shall study the possibility of health insurance legislation and report on or before Feb. 15, 1937. (The Public Health Legislation Committee of the State Society has already taken steps to have representation should such a commission be created.)

Resolution No. 177, requesting a committee to investigate the number of students admitted to the medical schools of the state.

A concurrent resolution was introduced in the House and Senate to authorize the appointment by the Governor of a commission of licensed chiropractors to license chiropractors temporarily until permanent licensing facilities can be established. Indefinitely postponed in the House Committee on Education and also in the Senate Committee on Education.

The following is a further brief summary:

The efforts of the members of The Medical Society of the State of Pennsylvania and the healing arts professions directly influenced the passage of the following:

H. B. No. 1789, Nurses' Registration Bill.

H. B. No. 2742, regulation of the prescribing of hypnotic and weight-reduction drugs.

S. B. No. 769, changes in the Medical Practice Act, recommended by the Board of Medical Education and Licensure.

The following bills were defeated either by being indefinitely postponed in committees or voted down:

H. B. No. 188, the Wilson Sickness Insurance Bill.

H. B. No. 297, the Chiropody Bill.

H. B. No. 494, the House Chiropractic Bill.

H. B. Nos. 1081 and 1082, the Optometrists' Bills.

H. B. No. 1759, defining drugless therapy.

H. B. No. 1959, the Epstein Sickness Insurance Bill.

S. B. No. 417, the Naturopathic Bill.

S. B. No. 1127, the Senate Chiropractic Bill.

Our Workmen's Compensation Amendments failed like all other amendments that were presented. This developed into a partisan measure. The Senate did not concur with the House amendments, and the House did not concur with the Senate amendments, all of which, with many others introduced in the past session of the Legislature, contained our recommendations.

Your committee considers that we are in a very favorable position at the present time regarding the passage of our recommendations in the next session of the Legislature. A great deal of care should be exercised in making public statements regarding the Workmen's Compensation Amendments.

Your committee attended 6 hearings before various committees in the House and Senate:

1. The hearing on House Bill No. 494, the Chiropractic Bill, before the Committee on Education, after which the bill was indefinitely postponed.

2. The hearing before the Senate Committee on Forests and Waters on the Stream Pollution Bill, at which your committee conveyed the sentiments of our society as being in favor of having pure and potable water for drinking purposes.

3. The hearing on House Bill No. 188, a Sickness Insurance Bill, before the Committee on Insurance, after which the bill was indefinitely postponed.

4. The hearing on House Bill No. 1199 before the Committee on Labor and Industry of the House, after which the bill passed the House.

5. The hearing on House Bill No. 1959, the Epstein Sickness Insurance Bill, before the Committee on Public Health and Sanitation, after which the bill was indefinitely postponed.

6. The hearing on House Bill No. 1199 before the Senate Committee on Labor and Industry. This bill was indefinitely postponed and a substitute bill, Senate Bill No. 1459, was sent over to the House.

Your committee desires at this time to express its great appreciation and sincere thanks for the splendid accomplishments of the members of the component societies. This work counted most in the prevention of detrimental public health legislation and the passage of favorable public health legislation.

Sincerely yours,

C. L. PALMER, Pittsburgh, *Chairman*,
MOSES BEHREND, Philadelphia,
JOHN J. BRENNAN, Scranton,
WALTER F. DONALDSON, Pittsburgh,
ARTHUR P. KEEGAN, Philadelphia,
HENRY W. SALUS, Johnstown,
JAMES D. STARK, Erie.

COMMITTEE ON PUBLIC HEALTH LEGISLATION.

CONTRIBUTIONS TO MEDICAL BENEVOLENCE FUND

The Committee on Medical Benevolence gratefully acknowledge the following contributions to the Fund:

Woman's Auxiliary to Northampton County Medical Society	\$125.00
Woman's Auxiliary to Beaver County Medical Society	100.00
Woman's Auxiliary to Erie County Medical Society	100.00

Woman's Auxiliary to Schuylkill County Medical Society	\$100.00
Woman's Auxiliary to Franklin County Medical Society	25.00
Woman's Auxiliary to Potter County Medical Society	7.00
Woman's Auxiliary to Allegheny County Medical Society	1.00

Total contributions since 1934 report \$2,530.00

CHANGES IN MEMBERSHIP OF COUNTY SOCIETIES

The following changes have been reported to July 12:

ALLEGHENY: *New Members*—James G. Cunningham, 111 E. Main St., Carnegie; George H. Fetterman, Mayview; Frederick A. Miller, Renton; Joseph C. Noah, Imperial; George C. Schein, 1407 Hays St., Homestead; Howard R. Schink, 901 Wood St., Wilkinsburg; Charles W. Tuthill, 35 Braddock Ave., Crafton; Murray B. Ferderber, 128 N. Highland Ave., William E. Gardner, 816 Cedar Ave., N. S., Jesse B. Griffith, 5406 Wilkins Ave., Arthur L. Sagone, 5100 Penn Ave., Joseph M. Shelton, Mercy Hospital, Pittsburgh. *Removal*—Lee H. Schlesinger from Pittsburgh to Natural Bridge, Va.; Walter R. Carey from Pittsburgh to Sheridan, Wyoming; Donald R. Kunkelman from Dormont to R. D. 2, Canonsburg (Wash. Co.). *Transfer*—Theodore Baker, Jr., Blairsville, to Indiana County Society. *Death*—Frank H. Frederick, Pittsburgh (West Penn Med. Sch., '97), June 21, aged 65; Allen L. Krepps, Pittsburgh (Univ. Pa., '97), June 24, aged 63; P. T. Barnum Shaffer, Elizabeth (Cleveland Med. Coll., '77), June 25, aged 85.

BUCKS: *Removal*—Stanley M. Moyer from Dublin to Quakertown.

BUTLER: *Reinstated Member*—William F. Pohl, 200 N. Washington St., Butler.

CAMBRIA: *Removal*—Melvin E. Cowen from Cresson to Quechee, Vt.; Thos. H. A. Stites from Cresson to R. D. 3, Nazareth (Northamp. Co.).

CARBON: *New Member*—John H. Kupp, Palmerton. *Transfer*—Robert E. Mitchell, E. Mauch Chunk (formerly of Coaldale) from Schuylkill County Society.

CENTER: *Reinstated Member*—William A. Barrett, Bellefonte. *Death*—David Dale, Bellefonte (Univ. Pa., '04), Apr. 22, aged 59; Robert J. Young, Snow Shoe (Temple Univ., '29), Apr. 22, aged 35.

CHESTER: *New Member*—McClellan Wilson, Jr., Pennhurst, Spring City P. O.

CLEARFIELD: *Removal*—John Henry Smith from Eldred to Duke Center (McKean Co.).

CRAWFORD: *New Member*—Paul O. Messner, Cambridge Springs.

DELAWARE: *New Members*—Olga Cushing Leary, Jr., Fairview Ave., Bon Air, Upper Darby; Caroline Vetoskey, 28 Mill Road, Upper Darby; Myer Marks, R. D. 2, Media. *Reinstated Member*—Charles E. Lawson, 2 Windsor Circle, Springfield. *Removal*—Paul S. Seabold from Upper Darby to 506 Cumberland St., Lebanon (Leb. Co.).

FAYETTE: *Death*—Lowry N. Burchinal, Point Marion (Univ. Md., '86), June 11, aged 72.

FRANKLIN: *Removal*—Fassett Edwards from Waynesboro to The Sanatorium, South Mountain; Royal H. McCutcheon from South Mountain to 316 W. Broad St., Bethlehem (Northamp. Co.); Herman A. Gilda from South Mountain to State Sanatorium, Cresson (Camb. Co.).

GREENE: *Removal*—Frederick C. Stahlman from Waynesburg to Charleroi (Wash. Co.).

HUNTINGDON: *Transfer*—William B. West, Huntingdon, from Bedford County Society; Francis S. Mainzer, 725 Washington St., Huntingdon, from Clearfield County Society.

INDIANA: *New Member*—Stewart F. Brewen, Dixonville. *Death*—William D. Gates, Indiana (Hahn. Med. Coll., '98), June 25, aged 70.

LANCASTER: *Death*—Jacob L. Mowery, Strasburg (Jeff. Med. Coll., '78), July 4, aged 80.

LAWRENCE: *New Member*—Gerald Zieve, New Castle.

LUZERNE: *New Members*—George R. Teitsworth, 782 Wyoming Ave., Kingston; Joseph John Miller, Dime Bank Bldg., Pittston. *Death*—Joseph M. Harrigan, Wilkes-Barre (Temple Univ., '28), June 15, aged 33.

McKEAN: *Transfer*—Robert D. Donaldson, Kane, from Allegheny County Society.

MONTGOMERY: *New Member*—Jacob John Kohlhas, Haverford.

NORTHUMBERLAND: *Death*—Joseph W. Schoffstall, Sunbury (Jeff. Med. Coll., '02), June 23, aged 55.

PHILADELPHIA: *New Members*—Elizabeth Sides Waugh, 350 Rounfort Road, Mt. Airy, Philadelphia; Oscar B. Griggs, 1925 Spruce St., Philadelphia. *Reinstated Members*—Samuel T. Gordy, 856 N. Fifth St., Bernard D. Judovich, 3300 Baring St., Philadelphia. *Removal*—James S. P. Beck from Philadelphia to Charleston General Hospital, Charleston, W. Va. *Deaths*—Charles A. Fife, Philadelphia (Univ. Pa., '97), June 15, aged 64; Thomas McCrea, Philadelphia (Univ. Toronto, '95), June 20, aged 65.

SCHUYLKILL: *New Members*—Peter J. Kapo, Mahanoy City; Frances Elizabeth Potter, Pottsville; William H. Schlitzer, 621 W. Market St., Pottsville; William J. Dougherty, Frackville; William Edw. Connelly, Williamstown.

VENANGO: *Death*—Andrew W. Goodwin, Oil City (Cleveland Med. Coll., '93), June 10, aged 66.

WASHINGTON: *New Members*—Malcolm S. Stevenson, Finleyville; Josephine M. Stephens, Monongahela; Walter J. Shidler, Houston. *Removal*—Emil Sposato from Burgettstown to 107 S. Main St., Washington.

PAYMENT OF PER CAPITA ASSESSMENT

The following payment of per capita assessment has been received since June 8. Figures in first column indicate County Society numbers; second column, State Society numbers:

June 14	Westmoreland	152	7846	\$7.50
	Lackawanna	257-259	7847-7849	22.50
	Luzerne	316-317	7850-7851	15.00
	Beaver	88	7852	7.50
June 15	McKean	49	7853	7.50
	Lawrence	72	7854	7.50
	Washington	122-124	7855-7857	22.50
	Jefferson	49	7858	7.50
June 18	Carbon	32	7859	7.50
	Berks	160	7860	7.50
June 19	Butler	41-49	7861-7869	67.50
	Westmoreland	153-155	7870-7872	22.50
	Adams	23	7873	7.50
June 20	Bucks	55-60	7874-7879	45.00
	Cumberland	38	7880	7.50
	Indiana	42	7881	7.50
	Chester	100	7882	7.50
June 21	Armstrong	48	7883	7.50
	Westmoreland	156	7884	7.50

June 21	Indiana	43	7885	\$7.50
	Berks	161-162	7886-7887	15.00
June 22	Westmoreland	157	7888	7.50
	Washington	125-126	7889-7890	15.00
June 24	Westmoreland	158-160	7891-7893	22.50
	Venango	52	7894	7.50
	Delaware	150-156	7895-7901	52.50
	Indiana	44-45	7902-7903	15.00
June 25	Center	26	7904	7.50
	Lancaster	171-173	7905-7907	22.50
	Beaver	89	7908	7.50
	Berks	163-164	7909-7910	15.00
June 26	Montgomery	125	7911	7.50
June 27	Indiana	46	7912	7.50
	Berks	165	7913	7.50
	Northampton	136-138	7914-7916	22.50
	Allegheny	1285-1292,		
		1294-1306	7917-7937	108.75
June 28	Lancaster	174	7938	7.50
June 29	Delaware	157	7939	7.50
	Crawford	56	7940	7.50
June 30	Chester	101	7941	3.75
	Elk	22	7942	7.50
	Washington	127-128	7943-7944	15.00
July 1	Philadelphia	2076-2095	7945-7964	150.00
July 5	Delaware	158	7965	7.50
	Lawrence	73	7966	3.75
July 6	Berks	166	7967	7.50
July 8	Lancaster	175	7968	7.50
July 9	Schuylkill	147, 149-158	7969-7979	82.50
	Westmoreland	161-164	7980-7983	30.00
July 10	Bucks	58	7984	7.50
	Luzerne	318-320	7985-7987	22.50
	Somerset	41	7988	7.50
July 12	Blair	98	7989	7.50

COMMITTEE ON SCIENTIFIC WORK

STANLEY P. REIMANN, M.D., *Chairman*
Philadelphia

PROGRAM OF THE SECTION ON UROLOGY

The Section on Urology will be highly honored in having as its guest speaker at the Harrisburg Session Henry S. Bugbee, of New York City, who is well known for his numerous contributions to urology. Dr. Bugbee will present a paper on the subject "Cancer of the Prostate."

The program for the Section will extend through 2 afternoon sessions, Wednesday and Thursday, Oct. 2 and 3, and will be of interest from both a scientific and a practical viewpoint. Most of the presentations will be illustrated with lantern slides, and some will be exclusively lantern demonstrations.

COMMITTEE ON PUBLICITY

MATTHEW H. SHERMAN, M.D., *Chairman*,
Harrisburg, Pa.

THE GOLF TOURNAMENT

The annual golf tournament will be played at the Harrisburg Country Club, Monday, Sept. 30, with play starting at 9 a.m. and continuing throughout the day. Lunch and refreshments will be served at the Club House. The golf dinner will follow in the evening at 7 o'clock.



Harrisburg Country Club

The committee will have the largest number of prizes that has ever been given at a State Society Tournament. Every dub and duffer playing will have a chance to win one or more prizes. Quite a few innovations to golf tournaments will be presented.

Many notables in the medical and political field will be present at the dinner in the evening, and the Golf Committee expects to start the convention off with a great round of fun and pleasure.

The Harrisburg Country Club is easily accessible, being but a 10-minute drive from the heart of the city. Transportation will be furnished to those who do not wish to drive their own cars.

The chairman of the local committee is Park A. Deckard, 814 N. Second Street, Harrisburg, to whom inquiries should be addressed and from whom entry blanks must be obtained. Send in your applications early. Come out and enjoy the company of your old golfing friends and make many new ones on September 30.

COMMITTEE ON HOTELS

CLARENCE R. PHILLIPS, M.D., *Chairman*, Harrisburg.

HOTEL RESERVATIONS FOR THE CONVENTION

Some of the hotels in Harrisburg are already booked to capacity for the period from Sept. 30 to Oct. 3. To be assured of satisfactory accommodations, you should make your reservations immediately.

The leading hotels are listed below, together with the number of rooms and the rates for single accommodations:

<i>Hotel</i>	<i>Location</i>	<i>No. rooms</i>	<i>Rates</i>
Penn-Harris	Third at Walnut	400	\$2.50-\$4.00
Harrisburger	Third at Locust	300	\$2.50-\$4.00
William Penn	327 Market St.	160	\$1.50-\$3.00
Plaza	423 Market St.	125	\$1.50-\$3.00
Bolton	Market Square	100	\$1.50-\$3.50
Columbus	Third at Walnut	90	\$1.50-\$3.00
Senate	Market at Second	60	\$1.75-\$3.00
Russ	Market at Fourth	47	\$1.50-\$2.50

EMERGENCY MEDICAL RELIEF IN PENNSYLVANIA

HAROLD A. MILLER, M.D., *Director*
Harrisburg

The pamphlet entitled "Standard Treatment Procedure in Early Syphilis" may be secured by sending a request to the Superintendent of Documents, Washington, D. C., and enclosing 5 cents in stamps. They are not distributed by the State Department of Health nor the State Emergency Relief Board.

Wassermann tubes and syphilitic medication should be requested through the local relief administrator. He must certify to the fact that the individual is on relief and is entitled to the treatment outlined in the Syphilitic Survey. The exact quantity of medication necessary for the treatment must be given, together with the name of the relief recipient. The local administrator, provided the request meets with his approval, requests the materials either directly from Dr. Edgar S. Everhart, State Department, or from Dr. Harold A. Miller, Director of Emergency Medical Relief.

Any licensed and registered physician desiring to obtain a position as a camp physician, with a salary of \$150 per month and found, is requested to contact the office of the Emergency Relief Department. Applicants must receive the endorsement of the local advisory committee and the officers of their county medical society. Those applying should address their letters in care of Dr. Harold A. Miller, Director of Emergency Medical Relief, State Emergency Relief Administration, Harrisburg, Pa.

Additional Data on Emergency Medical Relief
Lycoming County p. 913

County Society Reports

DELAWARE

June 20, 1935

The meeting was called to order at 3:45 p.m., at the Spring Haven Country Club, Swarthmore, by the president, John S. Eynon.

The society voted to defray the expenses of its delegates to the annual convention of The Medical Society of the State of Pennsylvania, at Harrisburg.

The guest speaker was Dr. H. Sheridan Baketel, editor of *Medical Economics*, and a member of the faculty of the Long Island Medical College, who spoke upon "Social or State vs. Present-Day Medicine." He said that some change in the present mode of practice of medicine will be evolved, and unless we as medical men assume charge of this change, then lay organizations will, and the results will be so much the worse for men of medicine.

Dr. Baketel spoke of the present-day situation in Europe from personal experience after having spent a number of months in the various European countries, consulting with physicians, laymen, politicians, etc. He did not include Russia and the Russian practice of medicine in this discussion as he stated that conditions there are too deplorable to be mentioned.

In discussing the panel system of England, he stated that it was the consensus of opinion of the medical men of Great Britain that the panel system was good for

the recent graduate but bad for the physician and for the families on the panel if the physician remained too long in panel practice. Practically all physicians in England agree that private practice is still the ideal for the older men. Largely through the efforts of the British Medical Society the universal application of the panel practice has been staved off. Panel practice dates from 1911 and is the child of David Lloyd George's brain.

Practically all English physicians, both the specialist and the private general practitioner, believe that such a system of practice would never do in independent America. It is their feeling that American physicians would never submit to any such state medicine as had been forced upon the English practitioners.

Some of the results of 24 years of panel practice in England are:

1. The quality of medical practice in England is considerably lowered.
2. The patients under the panel system are receiving inadequate care.
3. The practice of medicine has assumed not a professional but a cold business or commercial aspect. This is demonstrated by both physicians and patients. As people are entitled to medical service, they demand it whether they are ill or not.
4. Preventive medicine is losing ground under the panel system.
5. Graduate study is not encouraged.
6. The lay-control factor is the chief objection from many standpoints, not the least of which is the fact that it brings in the politician and the political influence.
7. Under the panel system the mortality rate in England has dropped 10 per cent. In the same period in the United States, without a panel system, the mortality rate has dropped 21 per cent.
8. Under the panel system the morbidity rate has increased by leaps and bounds, largely due to malingering.
9. The average gross income for the panel doctor is \$1,950. His average expenses are \$1,100. In the United States, without the panel system, the average income for general practitioners is something over \$3,000, with average expenses comparable to that in England.

Regarding the political phase of the various systems of social or state medicine, Dr. Baketel said that the political phase is most important because this has been a factor in providing political jobs for laymen. It has come to the point where the politicians do, or endeavor to, dictate even the policy and practice of medicine and the use of drugs and other preparations in the practice of medicine. If the people should desire to overthrow the panel system, it would be practically impossible because of the political factor and the jobs provided by the politicians. For generations the practice of medicine in England had been considered and was actually a "gentleman's profession." The men who were attracted to the field of medicine were gentlemen in every sense of the word; they practiced the art of medicine as gentlemen. With the advent of the panel system and the placing of medicine on a purely commercial basis, the character of the practice and of the men in practice has changed. Fewer and fewer "gentlemen" are interested in medicine and more and more of the commercial type of men are entering the

field. One of the results of this change is that great medical advances have ceased to come from England, from Germany, and from other countries where forms of social medicine are practiced. It is now generally recognized that the most important advances in the field of medicine are coming from the North American continent.

In his journeys to Holland, Belgium, Germany, *etc.*, Dr. Baketel found conditions to be analogous to that in England. In France the condition is different in that the system of state medicine there is managed entirely by the physicians and not by laymen. This system in France, in his opinion, is the best to be found on the European continent.

After discussing the European situation, Dr. Baketel considered the possibilities of various types of practice which might be used in the United States. He stated that at the present time there are over 200 plans of socialized medicine in actual practice in various parts of this country. There are medical groups, hospital groups, patient groups, lay-controlled groups, lay and medical control groups, county-controlled groups, county-controlled practice, and state-controlled practice. It is his opinion that the county medical societies should study the theory of socialized medicine and then plan that form of medicine which will be best adapted to practice in that county. No universal plan is applicable to all parts of our country. The American Medical Association has recommended that county societies develop their own plans.

The State of New Jersey has evolved a medical relief project under the Emergency Relief Administration. In this plan a public health hour with reduced fees and free treatment for indigents has been developed in the practice of many men. The supervising committee of this medical relief project is found in each county medical society.

In discussion George Cross asked what could be done about the "outlaw doctor." How can he be controlled and what can be done to make him follow the practice of a community? Much of the discussion was devoted to the abuses of clinics. Others discussing the paper urged that The Medical Society of the State of Pennsylvania engage a professional lobbyist for the Legislature or that each society propose a candidate for the Legislature from each county so that medical men would be ably and amply represented in the State Legislature.

In closing Dr. Baketel stated that the doctors themselves are to blame for the extent and abuses of clinics. The doctors have been "suckers" in this matter of clinics. The control of the outlaw doctor is a matter for the county society to determine. He also urged very strongly the maintenance of a lobbyist for medicine in the State Legislature.

Dinner was served.

E. ARTHUR WHITNEY, *Reporter.*

FAYETTE

Feb. 7, 1935

The meeting was held at 8:30 p.m. in the Medical Hall of the Uniontown Hospital; President John D. Sturgeon, Jr., of Uniontown, presided.

Holbert J. Nixon, Uniontown, read a paper on "Hyperchromic and Hypochromic Anemias of Pregnancy." The pernicious or hyperchromic form of anemia as it occurs in general was discussed and its occurrence in pregnancy with the application of liver therapy was

detailed. If unrecognized and untreated in pregnancy it carries a mortality of 65 per cent. It constitutes about 16 per cent of the high-grade anemias of pregnancy, anemias of 45 per cent hemoglobin or less.

Very frequently its exact nature is not recognized until the condition becomes serious. Sometimes it is not recognized at all unless careful blood counts are made, as well as urinalyses and blood pressure findings, in prenatal care.

This hyperchromic or pernicious form of anemia of pregnancy responds readily to adequate doses of liver or liver extract with dietetic management. If it is recognized and treated early enough, a dangerous complication during labor or the early puerperium should be prevented.

The secondary or hypochromic form of anemia as it occurs in pregnancy is common in mild degree and reaches a serious degree quite frequently. Castle and Strauss studied a group of normal pregnant women by observing the blood, the gastric juice, and the dietary history. There was a 12 per cent hemoglobin loss during pregnancy in the cases with marked hypochlorhydria and only 5 per cent loss in those cases with normal gastric contents and diets. Many cases of severe form of hypochromic anemia (45 per cent or less hemoglobin) show achlorhydria. The achlorhydria per se is not necessarily the cause of the anemia, but it is a thread that is intimately woven into the anemic fabric.

Deficiencies in gastric digestion, with associated achlorhydria or hypochlorhydria, and dietetic deficiencies are the etiologic factors in hypochromic anemia of pregnancy.

The treatment is the maintenance of a well-balanced diet during pregnancy, combined with large doses of iron (90 to 120 grains of inorganic iron per day) until the blood is restored to normal limits. Its maintenance with adequate doses daily should bring pregnant patients with this type of anemia to the delivery table in a much better condition to withstand the stress and strain of labor.

Herbert Lund, pathologist at the Uniontown Hospital, reported on the physiology of the blood formation, reviewing in particular the formation of early red blood cells.

A communication from Dr. Edith MacBride-Dexter, State Secretary of Health, was read, in which questions were asked concerning the work of the department of health. They were discussed fully by the society.

A motion was adopted to the effect that the society go on record as not being willing to immunize children against diphtheria free of charge on May Day.

Charles H. Smith gave a brief review of the work done by the Emergency Child Health Committee during the year 1934. There were 13,220 children examined. Of these, 833 were vaccinated, 1402 given toxoids, 60 furnished with glasses, 11 had ears treated, 572 had tonsillectomies done, 1032 had dental work performed, and 25 were circumcised. Eight cases of venereal disease were treated; 1867 have been brought to normal weight; 1768 mothers were taught in their homes the proper feeding for children. There are 3502 children reported as still being underweight.

Mar. 7, 1935

The meeting was held at 8:30 p.m. in the Medical Hall of the Uniontown Hospital with the president, John D. Sturgeon, Jr., presiding.

The program consisted of a symposium on "Otitis Media and Mastoiditis." George H. Hess, Uniontown,

outlined the anatomy of the mastoids and sinuses, giving a detailed description of the main avenues of infection with especial reference to the nasal communications.

David E. Lowe, Uniontown, read a paper on the signs and treatment of mastoiditis that occurred in the Uniontown Hospital. From June 1, 1933, to June 1, 1934, there were 6 cases admitted to the hospital. Between June 1, 1934, and Mar. 7, 1935, a total of 49 mastoid cases had been operated upon at the Uniontown Hospital, more than 8 times the number of mastoid operations for the year preceding. Of the total operated upon during the past few months, there were 3 deaths—2 from meningitis and 1 from lateral sinus thrombosis. Complications developed in 3 other cases, causing death—2 from pneumonia and 1 from erysipelas. Within the past several months, Fayette County had an exceptionally large epidemic of measles. This disease is most contributory to mastoid involvement, which usually develops from 3 to 6 weeks after measles have been cured. During December and January, Dr. Lowe's report disclosed that there were more cases of measles in Fayette County than in all the remaining counties of the State combined. The measles epidemic at this time was attributed to the fact that it was the first of any proportion in the county in 6 years. In addition to measles one case of mastoiditis developed from scarlet fever and a few from influenza and tonsillitis. The patients ranged in age from 13 months to 42 years; 11 developed bilateral mastoiditis.

In discussion Fred H. Harrison and Andrew O'Neill stressed the necessity for an early diagnosis and the importance of roentgenograms in the study of these cases.

A communication from the Committee on Public Health Legislation concerning the bills in the Legislature was read.

A motion was adopted that the state nurses be used to obtain information in cases of maternal deaths instead of social service workers.

The following officers were elected for the current year: President-elect, Lewis N. Reichard, Brownsville; first vice-president, John L. Messmore, Masontown; second vice-president, Earl C. Sherrick, Conellsville.

RALPH L. COX, *Reporter*.

FRANKLIN

June 18, 1935

The essayist was Howard E. Ashbury, Baltimore, Md., who spoke on "The Treatment of Intra-oral Malignancies." His method of treatment is by irradiation.

The essential foundation for the treatment of these malignant conditions is the production of a radiation membrane or epithelitis. The rationale of this plan appears to be that since cancer starts in an epithelial structure, the effect of radiation treatment must necessarily be based upon the reaction of the tissue to the rays as shown by the production of this membrane. It serves as a definite clinical guide to the effect of the treatment.

Radiation may be performed by roentgen-ray machines operating at 140,000 to 1,000,000 volts, with radium packs, and with a combination of these. Regardless of the method employed there must be produced an epithelitis if a given tumor growth is to be cured, and the method of choice will be such as produces the least injury to the patient. In this regard it is essential to treat women with less radiation, since their mucous membranes are more sensitive to such treatment than

are those of men. One of the necessities is that treatment shall be constant, daily, without consideration of Sundays or holidays. The amount of radiation used must be guided by the clinical effect produced. There is no set rule, and a daily study of tissue reaction is a *sine qua non* to success.

Since the radiation membrane is the gauge for treatment, it might be well to explain this product. It is really a slough of rather firm consistency, caused by the destruction of the normal mucous membrane, resembling a diphtheritic membrane. Its color is rich cream and its edges are usually sharply defined. In contrast with the surrounding membrane it stands out unmistakably. If touched, this membrane will bleed slightly. In fact it will often bleed without known trauma during healing. It is usually painless in effect and does not disturb sleep, but eating and talking do produce discomfort. The use of a mild local anesthetic will render the patient more comfortable.

The time of the appearance of the membrane is of interest: On the tumor itself in from 3 to 10 days; on the uvula and thereabouts, 11 to 13 days; posterior pharyngeal wall, 13 to 15 days; the lateral walls of the pharynx about the tongue and mouth, 16 to 17 days; pharyngeal aspect of epiglottis and lingual base, 18 days, the vocal cords and the highly resistant dorsum of the tongue, 20 to 22 days. This is not an invariable timing system, but is perhaps an average.

The location of a tumor on the body is to be considered, since a carcinoma of the uvula is more sensitive or responsive to irradiation than a like growth on the vocal cords. It is extremely important to keep careful record of the appearance of the radiation membrane as it is the definite guide to treatment and its results.

A Wassermann test is essential; many of the intra-oral conditions are complicated by syphilis. A biopsy study is necessary in every instance; otherwise, radiation is extremely hazardous. This dictum applies especially to the teeth, inasmuch as this treatment may readily induce osteomyelitis of the mandible or maxilla. Apparently apical dental abscesses are set into rapid and destructive reaction by radiation. This same effect has also been observed in the use of the cold quartz light in treatment of pyorrhea. It is a good rule to remove any suspicious teeth prior to beginning treatment.

The skin portals as a general rule consist of 2, located on either side of the neck. They should be as small as possible and still surround the active lesion on all sides with a margin of 2 cm. Accurate mapping of the primary lesion and any cervical metastases is necessary, as the latter should be included in the same field or fields, if possible. For example, in a case with unilateral metastases to the cervical glands a 10 cm. cone may be used on one side of the neck in order to take in both the primary lesion and metastases, and on the other side use only a 7 cm. cone to cover the primary lesion. It should be remembered that the tolerance of the patient diminishes in proportion to the size of the fields used. The skin portals should be kept as small as is consistently possible. However, if there is error, it should be in having the larger area covered.

The presence or absence of infection is very important. In the presence of infection the initial dosage should be very small. Small dosage at such times is favorable to elimination of infection, contrary to the effect of large doses. The physical condition of the patient is an important factor and must be considered. In general, the doses should range between 100 and 400 r-units per day, depending upon the size of the skin portal, the general condition of the patient, and the appearance of the

local lesion at the time of treatment. Only by careful study is it possible to determine the maximum dose to be given at any one time. However, it is an unvarying requisite that treatment once started must be carried to its conclusion despite all opposition, since it is fatal to start and then cease the treatment. It is better not to begin this therapeusis unless you are prepared to see it through. The target to be reached is the foundation of a heavy confluent membrane upon the primary tumor and the surrounding normal tissue.

There may be complications. One is that the patient will not feel very well in general. (In the opinion of this reporter such reaction is due to toxemia caused by absorption of broken-down cells.)

During the course of treatment the character of the secretion of the intra-oral cavity is changed to a thick tenacious mucus, which is very unpleasant to the patient. This is modified by the use of irrigations of a teaspoonful each of sodium bicarbonate and sodium chloride to a quart of water. This solution should be used every 2 hours when the patient is awake.

Dysphagia may be relieved by the use of metacaine. Feeding through a nasal tube may be necessary. The dysphagia is due only to the pain induced by the act of swallowing.

Dyspnea may be a complication. It occurs sometimes in vigorous treatment of the larynx. Such a case should be carefully studied prior to beginning treatment. If necessary, a prophylactic tracheotomy may be done. If there is any involvement of the ventricle folds or true vocal cords, tracheotomy should be seriously considered. If half the normal airway is occluded, then tracheotomy is indicated. It is bad treatment to do such an operation through freshly irradiated tissue.

The skin may be burned, but if this is treated by vaseline gauze early it tends to ready healing. Hair will be destroyed.

The loss of weight during irradiation probably is due to reduced food intake.

The statistics so far available show that there is what appears to be a permanent cure in more than 30 per cent of these always desperate cases. Considering that in the past these cases were invariably fatal, the saving of life and production of comfortable living are highly creditable accomplishments.

FASSETT EDWARDS, *Reporter*.

LANCASTER

Apr. 3, 1935

The meeting was held in the Medical Club Rooms. Donald Guthrie, of Sayre, delivered an address on "Symptomatology and Surgical Treatment of Acute Perforations of Peptic Ulcer."

The subject constitutes a serious surgical emergency—one attended by a very high mortality and one which must be correctly diagnosed early and treated by immediate operation. It occurs infrequently, but yet with enough frequency to demand that its occurrence be kept constantly in mind as a possible or probable cause of intense abdominal pain.

Early diagnosis and prompt surgery within the first 6 hours is attended with a low mortality, but there is a very high mortality after 12 hours and almost 100 per cent mortality after the first 24 hours. In this respect acute rupture of a duodenal ulcer resembles acute mechanical intestinal obstruction.

Dr. Guthrie reported an analysis of 71 ruptured duo-

denal ulcers treated in the Guthrie Clinic. These occurred among 105,140 admissions, 66,621 of which were to the surgical service—one in 1481 general hospital admissions or in 910 surgical admissions. Only 2 patients were females. The ages of the group were between 18 and 85, the average age being 44. The incidence increased until the fifth decade (23 cases), then decreased. No type of occupation influenced its occurrence; neither did the perforations occur more commonly in the spring and the fall, as mentioned by some observers.

SYMPTOMS

The chief symptom to be relied upon in the diagnosis of the condition is pain—abrupt, sudden, unheralded, unbearable, excruciating, annihilating—occurring high in the abdomen and epigastrium. The pain may be referred to the chest or to the right arm (stated by some observers, not stressed in our cases). The patient soon shows the effect of the shocking suddenness and severity of the pain. He remains immovable in bed, in a chair, or on the side of his bed, with his legs flexed upon his thighs, his thighs upon his body, and his shoulders stooped in a jackknife position. The respirations are shallow, the voice is feeble, and the patient resents questioning and objects strenuously to being straightened out for examination. The position of the patient and unwillingness to have it changed is a very suggestive sign. The facies are grey, but the skin is usually dry. The pulse is slow and the temperature is normal. The pain so characteristic in the beginning of the attack remains constant in nearly all of the early cases; later it may become intermittent, and in the late case with distention from spreading peritonitis the pain may cease entirely. Here is seen the picture of an intra-abdominal catastrophe, and it is no time to give laxatives and no place to administer morphine as the first major effort of the physician, until he has some idea of what has happened and has acquainted the patient and the family with the seriousness of the situation. These conclusions are drawn after finding various quantities of castor oil, medicines, and laxatives free in the abdominal cavity and after having had many of these patients admitted showing various degrees of general peritonitis or in moribund states, due largely to the frequent administrations of morphine early in the attack.

A leukocytosis with a high differential count is nearly always present a few hours after the attack. Nausea is almost always present and early vomiting is common, but some do not vomit and the vomiting, if it occurs, is infrequent.

There is a tense board-like rigidity present early, a rigidity not equaled or seen in any other abdominal condition. The recti muscles are splinted so firmly by spasm that the linea transversae of the recti muscles stand out and can be seen in thin patients. The abdominal respiratory excursion is absent and all respiration is entirely costal in type and is apt to be shallow. With this general rigidity, there is general tenderness, more marked in the right upper quadrant.

In many patients in whom the stomach and duodenal contents early gravitate down the right gutter bounded by the abdominal parietes and the right colon, the pain and tenderness may be complained of in the region of the appendix and many good surgeons of wide experience have mistaken the condition for an acute perforated appendix. This mistake is not unpardonable if the true condition of affairs is quickly recognized by finding quantities of fluid, free gas in the abdomen, and a normal appendix, and the incision extended upward or a

new one made if a McBurney type has been the primary one.

Nearly all cases will give a history of chronic indurated duodenal ulcer attacks. There is the occasional case in which it is impossible to obtain a history and the findings in such a case lead one to believe that an acute type of ulcer of embolic origin has developed. It is extremely difficult to obtain a history from a patient who is undergoing the agony of an acute perforation and it is difficult to obtain such a history from a distracted family; hence this symptom during the early part of the illness is perhaps unreliable, but during the patient's convalescence almost invariably a good history of chronic duodenal ulcer may be secured from the patient or his family. The absence of liver dullness, stressed by some as important, is not to be relied upon too strongly as it is more apt to be present in late cases. Pneumoperitoneum is an important and valuable sign which may be determined frequently by the correct type of fluoroscopic examination. Singer and Vaughan maintain that it is effective in 86 per cent of cases proven by operation.

DIFFERENTIAL DIAGNOSIS

It is important to differentiate acute perforated duodenal ulcer from the following 8 conditions, 2 of which are medical:

Tabes Dorsalis.—While the pain is severe, it is more likely to be intermittent, lancinating in character, without the board-like rigidity and tenderness; there is not the immobile fixed position of the patient and the leukocyte count is normal. An Argyll-Robertson pupil and diminished or absent knee-jerks are suggestive. The pain in tabes, however, is severe.

Coronary Thrombosis.—This condition with abdominal pain may simulate the condition. The epigastric pain, however, frequently radiates to the lower mid-sternal regions. The change in character of the pulse, the leaky skin, cyanosis or ashen pallor, the sudden drop in blood pressure, the presence of a Cheyne-Stokes respiratory rhythm, the finding of edema of the lower lobes of the lungs, and a little later the development of a pericardial friction rub suggest coronary occlusion. The relief of pain by amyl nitrite or nitroglycerine and the absence of board-like rigidity would strongly suggest the attack to be of cardiac origin.

Renal Colic.—The patient is restless and is not in the fixed motionless state of perforation. The unilateral, cutting, knife-like pain with its characteristic radiation differs markedly from the agonizing pain of perforation.

Gall Stone Colic.—The suffering is intense and epigastric; the patient is restless and moves about, may walk the floor, and get down on the hands and knees. There is no shock, and the attack as a rule will cease abruptly with morphine within a short time. There is never board-like rigidity present.

Acute Hemorrhagic Pancreatitis.—This produces early shock and agonizing pain. To quote Moynihan, "Of all the pain the human body can suffer this is the worst." The patient early is in a state of collapse, the skin is leaky, the pulse thready (in perforated ulcer the skin is closed, the pulse is strong and slow), the face is ashen. In pancreatitis, vomiting is an early and persistent symptom. There is tenderness in the epigastrium or between the ensiform and the navel, but there is not the abdominal rigidity and the immovability and fixation of the patient.

Acute Mesenteric Vascular Occlusion.—The pain is intense and severe, attended by early symptoms of col-

lapse. The patient is apt to be obese and show evidence of cardiac disease, or one who might have had an injury, an infection, or an operation. A small amount of blood in the stool, with the symptoms described, is very suggestive.

Acute Intestinal Obstruction.—The pain is intermittent, recurs at definite intervals early in the attack and is attended by intestinal patterns, and signs of trapped gas and fluids giving the characteristic pathognomonic sounds on auscultation. There is neither the intense rigidity or fixation nor the early shock from the unbearable pain.

Appendicitis.—If there is any question between appendicitis and acute perforation of duodenal ulcer, a right rectus incision instead of a McBurney incision should be made.

Dr. Guthrie stressed the jackknifed, immobile position of the patient and the resentment about being straightened out for an examination of the abdomen. The pain of acute mesenteric vascular occlusion and that of hemorrhagic pancreatitis may be sudden, severe, and shocking in its effect, but the patient willingly consents to being stretched out full length on his back, and submits to the examination of his abdomen willingly.

TREATMENT

The treatment of acute perforated duodenal ulcer should consist of immediate surgical consultation, no liquids or medicines by mouth, and the use of morphine only after the diagnosis has been made or strongly suspected and the seriousness of the situation explained to the patient and the family.

The operation should be performed at the earliest possible moment, and the subject of the anesthetic is very important. It should be administered by a skillful anesthetist if an inhalation form of anesthesia is used. The conservative school of surgeons believes in doing as little as possible (simple closure of the ulcer and the abdomen), with or without drainage, and performing a gastro-enterostomy later should the patient develop interference with the emptying power of the stomach. In other words, they treat the case as an emergency and do as little as possible to control the emergency. The radical school believes that gastro-enterostomy should be performed in all cases after closure of the perforation or resection of the ulcer and some type of pyloroplasty. A recent more radical school of foreign origin recommends that resection—partial gastrectomy—is necessary to reduce the morbidity and mortality.

At the Guthrie Clinic the following procedure has been the policy in the 71 cases which form the basis of this report:

Simple closure of the perforation was made, with gastro-enterostomy being performed at a later date only if obstruction developed. The ulcer was closed by thorough and through interrupted sutures of intestinal chromic catgut and inverted by a second row of catgut or a purse string of linen, the defect being protected by a tab of omentum.

Excluding 6 patients, who entered the hospital in a moribund condition and died without operation, 15 patients succumbed, giving an operative mortality of 23 per cent for the series. Necropsies on the latter group did not reveal a single instance of reperforation or leakage of the ulcer, or perforation of a second ulcer. It is difficult, therefore, to see how a more radical procedure, such as gastro-enterostomy or partial gastrectomy could reduce this primary mortality. Three patients in this series received a primary gastro-enter-

ostomy because closure of the ulcer was impossible without almost complete obliteration of the duodenal lumen. Of these 3, 2 died, a mortality of 66 $\frac{2}{3}$ per cent. Three patients coming to surgery within 5 hours after perforation died of bowel obstruction at the site of drainage tubes.

It was formerly the custom at the Guthrie Clinic to drain the pelvis and upper abdomen in all cases, but recently cases of less than 6 to 8 hours' duration have been closed without drainage with apparent safety and they have largely discarded the drain in the pelvis.

One patient died of hemorrhage and shock, the abdomen being filled with blood at the operation, and one died with a bilateral parotitis on the fifth day. Wound disruption was the cause of death in one patient, following the removal by mistake of both dermal and the silkworm retention sutures on the seventh postoperative day. Seven patients died of abdominal sepsis and 2 of lobar pneumonia.

Fifty patients recovered from the original operation, the one primary gastro-enterostomy remaining symptom-free. Eleven of the 49 patients with simple closure developed duodenal obstruction within a few months, necessitating gastro-enterostomy. No deaths occurred in this group and 8 of the 11 examined recently were perfectly well except one who suffered from mild gastric symptoms controlled by diet.

A careful follow-up investigation, usually including roentgen-ray examination, was recently made on 34 of the remaining 38 simple closure cases and all were symptom-free to the present time or until their death from unrelated causes except one, whose mild symptoms were also controlled by diet.

The following tentative conclusions may be drawn of the 71 cases of acute perforated duodenal ulcers:

1. The importance of correct diagnosis and immediate surgical management are stressed because in no other acute abdominal emergency is the time factor of greater importance.
2. Necropsy gave no indication that primary gastro-enterostomy or partial gastrectomy would reduce the operative mortality of 23 per cent. This mortality is not high if one considers the fact that the average age in this series was 44 whereas the average age in cases collected from the literature was 36.
3. Drainage of the abdomen introduces the hazard of bowel obstruction and may well be omitted in cases less than 8 hours old. Less than one case of simple closure in 4 will require a later gastro-enterostomy for obstruction, and the obstruction will develop within a few months.
4. Delayed gastro-enterostomy may be performed with little danger to the patient and with an excellent prospect of complete cure.
5. The vast majority of simple closure cases which do not develop obstruction will remain well, the perforation perhaps destroying the ulcer site to a degree approaching that of the cautery.
6. They are unconvinced of the advantages of the more radical procedures in acute perforated duodenal ulcer as it is seen in the Guthrie Clinic.

WILHELMINA SCOTT, *Reporter*.

LUZERNE (HAZLETON BRANCH)

June 19, 1935

The meeting was held at the Valley Country Club, near Hazleton. Following the scientific program the annual banquet was held. The principal speaker was

Attorney Roger J. Devers, counsel for the United Mine Workers of America. He spoke on "Medicolegal Problems Confronting the General Practitioner in Compensation Work."

After reviewing the history of workmen's compensation, Mr. Devers emphasized certain aspects of the present law in Pennsylvania. He stressed the point that injury need not cause a disease, but may aggravate it or cause an exacerbation and thus entitle the individual to compensation. He mentioned numerous cases illustrative of this point.

The necessary or rather desirable changes in the compensation law in Pennsylvania were briefly outlined. A plea was made for more generous remuneration for all miners who become disabled, in view of the fact that they have chosen such a dangerous occupation. More liberal compensation awards will not mean economic hardship to the coal companies, for the extra cost will be passed on to the consumer.

Mr. Devers favors legislation which will permit the injured man to select the doctor who cares for him. He intimated that the lack of this right of selection in the original law was due to lobbying efforts of committees of the State Medical Society at the time the law was passed. He predicted that Pennsylvania will have legislation more favorable to the miners, but that it will take a very long time. JOHN M. DYSON, *Reporter*.

LYCOMING

June 7, 1935

The meeting was held in the Lycoming Hotel, Williamsport, at 1:30 p.m., with H. P. Haskin in the chair. It was devoted entirely to medical economics with particular reference to medical relief work.

Harold A. Miller, medical director of the State Emergency Relief Board, and George L. Laverty, chairman of the State Society's Medical Advisory Committee, were the speakers.

Dr. Miller read a paper covering the progress of emergency medical relief from its inception and mentioned the advantages and disadvantages of the present set-up. A summary follows:

On Jan. 1, 1935 there were 2,000,000 persons on relief in Pennsylvania. In the first year of operation more than \$1,000,000 was spent for medical relief in this state; 74 cents per patient was paid to physicians, 15 cents to dentists, 7 cents to pharmacists, and 4 cents to nurses. Ninety-five per cent of monies paid for medical relief reached the patient, only 5 per cent being expended on the overhead.

The medical profession will be called upon soon to make a decision on security or insecurity covering their professional status. Only 50 per cent of the population generally remain as private pay patients. The problem in the future will be to determine eligibility for relief, the distribution of the patients to the doctors, and how to return those patients now on relief to the physicians as private patients when they are again wage earners.

The Emergency Relief Board in administering emergency relief last year to patients at home saved the hospitals of Pennsylvania 700,000 hospital days. It is hoped that the hospitals will realize this in the future and assist the Emergency Relief Board in standardizing diabetics in the acute or more serious stages, in the study and care of pernicious anemia patients, and in other cases outside the jurisdiction of relief.

Dr. Miller compared the set-up in Pennsylvania with

that in New York City. In the beginning there were 3000 physicians on the panel in New York. At the present time only 700 odd physicians participate in this work, which is so regulated that the doctor must report back after he has made one visit and ask permission to make a second or a third visit. If there are 3 consecutive visits the patient is taken from the family doctor and sent to a hospital. Dr. Miller believes that our present organization, with its local county advisory committees doing a good share of the paper work, has saved 13 or 14 per cent in overhead, thus making returns to the doctors that much greater, with practically all eligible physicians participating. He mentioned the various schemes for socializing medicine, which include contract group practice, the panel system, and others, gave a review of socialized medicine as it was started in Germany 50 years ago by Bismark, and followed it through to the present time. The average length of illness in Germany has increased from 5½ days to 28 days per year.

There are 3 main groups of patients: (1) Those in the comfort level, in which medical remuneration goes to the faddist; (2) the low income group, which is the group from which physicians derive their regular income; and (3) the indigent. It is in the second and third groups that decisions will have to be reached regarding medical care. In the United States there are approximately 20,500,000 on the relief rolls.

George L. Lavery spoke on emergency medical relief work from the standpoint of the State Advisory Committee. His criticisms of the present plan were included under 3 general headings: (1) Deficiency of funds available; (2) physicians have faced an exacting public; and (3) instances in which physicians commercialized the work.

The committee studying the cost of medical care handed down a report which quoted \$36 per year as the average cost of medical care per person. During the first year of emergency relief \$1.09 per person was expended and probably more would have been had it not been for lack of funds. Approximately 50,000 medical orders per month are sent in. With the clerical staff at hand it would be impossible to answer individually every doctor whose bills are reduced, explaining why.

Among the things to be considered are included: (1) Glasses for school children unable to pay; (2) that fewer patients be taken care of in dispensaries and more be referred to private practitioners; (3) that physicians on the staffs of hospitals be paid something for the services rendered there; (4) that syphilis and gonorrhea be included in the list of diseases treated.

The \$50,000,000 appropriated for health does not all go to the hospitals, thereby decreasing their efficiency. There is an increase in insanity of 1200 to 1500 cases per year. From 1000 to 1500 active tuberculosis patients are on the waiting list. There is a wide variation in the amount of appropriation to various hospitals throughout the state. Dr. Lavery questions the advisability of leaving the matter of appropriations to the Department of Welfare; he recommends that it be taken out of politics or placed with the Department of Health and that these funds be paid to the several hospitals in proportion to the amount of free work done.

He discussed the question of medical relief being withdrawn after the depression. This question must be faced within a year, and he advises every county medical society to give the matter thought and give constructive assistance to the state advisory committee.

The remainder of the program was given over to

questions and answers by the 2 speakers. Dr. Miller outlined the requirements for a complete obstetric case. Regarding syphilis in pregnant women, Dr. Miller stated that the figures in Lycoming County are very much lower than in other counties, being less than 2 per cent. About 14 per cent of colored pregnant women have syphilis and 8 per cent of white women, with an average of about 10 per cent. Provision is to be made for anti-syphilitic treatment of these patients, but treatment of syphilitics in general will not be provided. They are being referred to the regular state clinics. The Emergency Relief Department will pay for one diagnostic visit of any venereal infection.

The distribution of nursing care has been fair in urban communities but quite inadequate in suburban communities. It seems likely that a reasonable amount of funds will be available next year for this purpose. A plan worked out on geographical lines is to be offered for nursing care in suburban districts.

Provisions are being made for a general nutritional study beginning July 1. The nutritionists will instruct diabetics in the preparation of proper diets in the purchase of the food. Additional diets for this purpose will be granted. There are 20,000 diabetics in Pennsylvania. The Emergency Relief Board cannot afford insulin for all these cases. It will furnish insulin in cases in which the hospital will standardize the patient. It will also allow 2 doctor's visits per month, the nutritionist to assist in figuring out the diet.

All miscarriage cases delivering after 8 months will be considered full time; prior to that, a miscarriage.

Additional prescriptions (more than 3) will require authorization by the local advisory committee.

Under the new Federal Works Program, the care of the injured will probably be taken care of by some set-up other than the State Emergency Relief Board.

By original intent neurasthenics with no organic disease are not included in the present plan. However, any condition threatening life will be given care. It was stated that proportionately twice as many medical orders issued are to the unemployed on food and cash relief as to those on work relief.

There are no provisions to date for laboratory work. It is hoped some day to have a central station for such activities. Again regarding insulin, it will be provided for those in coma but not for others.

Regarding pernicious anemia, there are no provisions for liver extract.

Regarding fracture cases, the question was raised about lump sum payment. Dr. Lavery doubts the advisability of this and believes that some provision will be made in the near future for roentgen-ray studies.

Epilepsy is not included in emergency medical relief, but injuries to epileptics and other eligible conditions are included.

No satisfactory arrangement has as yet been effected regarding mileage to rural physicians.

Dr. Miller admits the inadequacy of funds but believes that allocation is the better plan inasmuch as more money can thus be requested for heavier months.

Regarding typhoid fever, whooping cough, fractures, etc., commonly called acute cases but covering more than the 2 weeks' period, this can be circumvented by asking the local advisory committee for additional orders.

In closing, Dr. Miller stated that he believes Pennsylvania has as satisfactory a set-up as any state in the Union. In Massachusetts, Delaware, Nevada, and California, physicians receive no help in this respect. A few others have had and rejected it.

LARUE M. HOFFMAN, Reporter.

NORTHAMPTON

May 24, 1935

The meeting was held at the Hotel Bethlehem, May 24. In place of the regular order of business a program of the Pennsylvania Cancer Commission was heard.

Stanley P. Reimann, of Philadelphia, discussed the "Chemical Differentiation of Tumor Cells." He referred to a case in which the presence of an embryoma of the testis was predicated because of a positive Aschheim-Zondek test of the patient's urine. In another case the presence of a periductile fibroma in a woman, age 60, led to the predication that the patient had an ovarian cystoma. Malignant tumors do not respond to the organizing efforts of the rest of the body. Practically all benign tumors do respond to these activities. Something therefore must be wrong with the inside of the malignant tumor cell.

Robert H. Ivy, of Philadelphia, discoursed on "Cancer of the Mouth." Leukoplakia of the mouth, often an antecedent to cancer, is found chiefly in users of tobacco. Jagged roots of teeth, ill-fitting dentures, and salivary calculi may predispose to the formation of ulcers which may be cancerous. These possible causes of cancer should be cured by proper dentistry, the discontinuance of the use of such irritants as tobacco, and the frequent use of alkaline mouth washes. If these measures produce no improvement in a reasonable time, or if, in spite of these, there is increasing induration, the lesion should be excised or removed with a cautery. Radium should be used sparingly on these lesions because it may produce cancerous breakdown of some of the irritated tissues.

In cases presenting an ulcerated mouth lesion and a positive serum test for syphilis, too much time should not be lost by allowing the patient to have a long series of antisiphilic treatments. The lesions should be excised and carefully examined. This does no harm to the syphilis and may affect favorably an early carcinoma.

In discussion George E. Pfahler, of Philadelphia, said that biopsy of suspicious mouth lesions should be done after at least an erythema dose of roentgen ray. Tuberculous ulcers of the mouth are usually associated with pulmonary tuberculosis. Patients should not be told that operation is the only treatment of cancer of the mouth because they fear operations. At present the percentage of cures in this disease is 30 per cent but it could be increased to 70 per cent. R. P. Batchelor, of Palmerton, said that treatment of cancer of the mouth should be a coöperative effort of the surgeon and the roentgenologist. The latter should see the cases early. Loose teeth are frequently associated with malignant disease of the mouth.

In the general discussion that followed the morning's papers, Dr. Reimann said that it is not necessary to sterilize patients who have periductile fibromas. Leukoplakia is a general disease and affects many parts of the body at the same time. Twenty-five per cent of the cases respond to vitamin-A therapy. Very heavy growths of leukoplakia are resistant to this therapy, however. These cases deserve special study and differentiation. Dr. Pfahler emphasized the importance of subjecting to biopsy mouth ulcers found in conjunction with syphilis.

Lunch was served.

The afternoon session was opened by a paper on "Cancer of the Bladder," by George E. Pfahler. He spoke of the value of pneumocystograms which often present more data than can be obtained by cystoscopy. The technic of pneumocystography is as follows:

1. A soft rubber catheter large enough to fill the urethra completely is inserted into the bladder and the urine is drawn off.

2. Enough air is injected into the bladder through an atomizer bulb to make the patient state that he wants to urinate. The air is allowed to escape, and the bladder is filled again with air. This process is repeated 2 or 3 times to make sure that all the urine has been withdrawn. The bladder is then left filled with air; the catheter is clamped with a hemostat and fastened to the thigh by a bit of plaster.

3. A large catheter or rectal tube is inserted into the rectum to draw off any gas that has collected. If necessary the patient may have a cleansing enema.

4. The patient is placed supine over a Potter-Bucky diaphragm. Three or 4 exposures are made, each with somewhat different direction of the rays.

5. The patient is very carefully turned over to the prone position. Three or 4 exposures are again made, each with different direction of the rays.

6. The catheter is unclamped and the air released; the catheter is then removed.

There is no danger of an air embolus when this process is used. Opaque cystograms are valuable for revealing diverticulae of the bladder.

If a bladder is seen to distend smoothly, infiltrating cancer is not present. With the present knowledge of this subject, at least 50 per cent of bladder tumor patients should get well.

In discussion William H. Mackinney, of Philadelphia, said that an analysis of his last 50 cases of cancer of the bladder showed that the history of hematuria was about the same as it was 10 years ago. Therefore, patients are not being told the significance of hematuria. Cancer of the bladder is the third most frequent lesion seen by the urologist. From all practical standpoints all bladder tumors must be regarded as malignant. He is hopeful about bladder papillomata but not about infiltrating tumors. The former should be treated with deep penetrating roentgen rays and with endoscopic fulguration. He has seen very few patients cured by operations for cancer of the bladder. The point repeatedly to be emphasized is the significance of hematuria. Elmer Hess, of Erie, said that previous to 1926 he operated upon 80 bladder cancers and only 2 of the patients lived longer than 18 months. Of 250 cases since treated with roentgen-ray and cystoscopic therapy, 70 are living. Any person having a bladder tumor should have monthly cystoscopic examinations for 5 years. The scalpel is of no value in the treatment of bladder tumors. He has had 9 deaths in 9 cases of cystectomy. Physicians will never be successful in the matter of securing necropsies unless they are willing to have them performed on the members of their families and expect to have them done on themselves.

A paper on "Cancer of the Stomach" was read by Frank Lahey, of Boston, Mass. He reviewed 195 cases of cancer of the stomach which had been treated at the Lahey Clinic in the past 7 years. One of the factors producing the feeling of pessimism that prevails regarding the disease is its high operative mortality. Early diagnosis is the most important feature of the treatment. There are no characteristic early symptoms of cancer of the stomach. Any person, age 20 or older, who has indigestion is never free from the suspicion of having gastric malignancy. The duration of symptoms is not a good criterion of operability. A palpable mass is not necessarily a sign of inoperability. In the diagnosis of cancer of the stomach roentgen-ray films, fluoroscopy, and chemical studies have the chief place. In the present

series there was a diagnostic error of 4 per cent. The present plan of treatment is to do a subtotal gastrectomy if 2 to 3 weeks of strict medical care does not dissipate the roentgen-ray picture, the symptoms, or the presence of occult blood in the stools. All lesions of the greater curvature are considered malignant.

Spinal anesthesia should not be used for operations that will require longer than 1 hour. Intratracheal ethylene or cyclopropane plus local administration of neocaine is used for the longer procedure.

Lack of fixation rather than the size of the lesion is the main determinant of operability. Low operability is always associated with high mortality and low curability. Palliative gastro-enterostomy has been found hardly worth while.

George P. Müller, of Philadelphia, opened the discussion by stating that change in gastric consciousness is a very important early symptom of gastric cancer. He said that only 5 out of 100 patients who have the disease have a chance of living. There is therefore much room for improvement in our management of these cases.

Donald Guthrie, of Sayre, said that there is still a belief in many lay minds that cancer is incurable. This is due to the fact that so many late cases are subjected to operation. There is also the belief that cancer is a shameful and disgraceful disease to have. He thinks that we may get further if we refuse to operate on late cases and send them home as object lessons in the results of applying for treatment too late.

Harold L. Foss, of Danville, emphasized the fact that patients in rural areas come to hospitals much later in illness than patients in metropolitan areas. This is true in almost all diseases but especially in cancer. The rural group must be reached by more and better propaganda about cancer than it has received in the past.

Frank Adair, of New York City, read the final paper of the session. His subject was "Cancer of the Breast." He finds that cases of this disease are coming for examination earlier than they formerly did. Since the best treatment of cancer is a coöperative one, making use of the surgeon and the roentgenologist, it behooves each to realize the importance of the other.

In the differential diagnosis of cancer of the breast, traumatic fat necrosis and plasma cell mastitis may give some difficulty. The former occurs chiefly in fat women who have been subject to injury such as that due to blows or to hypodermoclysis. Plasma cell mastitis is the result of an old abscess that failed to open. The lump remains the same for several years.

In America about 35 per cent of breast cancer cases get 5-year cures. In the Memorial Hospital Clinic 41 per cent of 5-year cures are found. Surgical treatment is failing to cure 2 out of 3 cases of breast cancer. In a recent series of cases treated by preoperative irradiation at the Memorial Hospital, which were proven by aspiration biopsy to be breast carcinomas, a significant percentage failed to show the presence of any malignant areas when the breasts, later removed at operation, were carefully examined by the pathologist.

Breast cancer cases should be individualized before treatment is decided on. Scirrhus cancer in old people may sometimes be satisfactorily treated by local removal.

Of 168 cases reported a few years ago as having bleeding from the nipple, malignancy was found in 48 per cent.

The roentgen ray is very often satisfactory in the treatment of recurrences. In the management of metastatic lesions producing crushed vertebrae, the patient should be placed in hyperextension in a windowed cast

before radiation is applied. This prevents the permanent deformity that results from treatment while the vertebrae is collapsed.

Moses Behrend, of Philadelphia, discussing Dr. Adair's paper, said that the public and the profession must be further educated to earlier recognition of cancer. He has always believed in the value of roentgen radiation before and after mastectomy.

Edward J. Klopp, of Philadelphia, spoke about the value of a visit to the Tumor Clinic of the Memorial Hospital in New York City. That hospital, he said, has set a pace that the rest of the country is finding hard to follow. He feels that cancer patients should be seen by both roentgenologist and surgeon before operation is performed.

Samuel J. Waterworth, of Clearfield, said that the first time a patient visits a doctor he should have a thorough physical examination. Any operation for cancer should be a thorough one.

The papers were illustrated by many lantern slides. More than 150 physicians were present at the meeting. In the evening about 400 lay people were addressed at the Broughal High School by George E. Pfahler and Donald Guthrie. There was a question and answer discussion in which several members of the audience participated. A motion picture describing some of the important points in cancer prophylaxis was shown.

FREDERICK J. PEARSON, *Reporter.*

PHILADELPHIA

May 8, 1935

The first paper at this meeting, which was in the form of a symposium on anemia, was "The Architecture of the White cells with Special Reference to the Schilling Count," by Walter Crocker. The Schilling count was described in detail and illustrated by lantern slides. Every effort is being made to have this method employed routinely by reason of the universal satisfaction it gives. Schilling considers the segmentation of the fully matured polymorphonuclear cell to be an important change, and his analysis of these cells is called the nuclear index or the Schilling index. It is based on a ratio count of the cells, the proportion of "good fighters" to "poor fighters." Pathologic changes in neutrophils are a valuable index to the Schilling count. The hypersegmentation of the neutrophil has a certain clinical significance.

"The Blood as a Tissue with Special Reference to the Red Cell," was the title of a paper by Max Maurice Strumia. Introducing his paper with a few generalities as to the organic character of the blood, the essayist launched his principal theme of the blood as a respiratory organ. The fixed portion of the blood has 3 functions: Generative tendencies; storage of cells awaiting maturity; and as a system deeply concerned in the production of antibodies. The fixed portion of the blood may be divided into two as regards its morphology—the hemolytic centers, which are localized, and the differentiated portion. This last system is formed of a large number of cells capable of great polymorphonuclearism into a great variety of blood cells distributed widely in the blood system. The hemogenetic centers proper were considered. In the fetus, typical hemogenetic centers are found in the liver, spleen, and bone marrow. The marrow of the ribs, sternum, skull, *etc.*, is particularly active, but the activity of various portions of the bone marrow varies. Bone marrow is made up of stroma, undifferentiated cells, and cells resembling fat cells.

Both red and white cells are found in the bone marrow. In addition to the neutrophil system, there is a series of cells made up of mature monocytes or undifferentiated cells. The only blood cells repeated normally in bone marrow are the lymphocytes. There is a differentiation common to all cells present, the difference being that the undifferentiated immature cells are capable of multiplying and producing elements which remain in the bone marrow. This function of multiplying and maturing of the cells is invaluable from a clinical standpoint. In pernicious anemia, for instance, it is lost entirely. Megaloblastic cells are common in the fetus and absent in the adult except in severe anemias. Other differences were also cited. The author gave a very detailed account of the blood cells and their source as well as their variations in the presence of pathologic involvement, which was illustrated by lantern slides.

"The Anemias from a Clinical Standpoint," was the title of the paper read by Wm. Egbert Robertson. The essayist coordinated the laboratory observations of the previous speakers and showed the factors essential to the aberrant as well as the normal development of the blood cells. The life of the leukocyte is only a few days whereas that of the red cell may extend over a period of 120 days. It is probable that the successive deaths of these short-lived leukocytes may furnish a protein which provides the initial stimulus for the production of the variously sized and shaped blood cells. The subsequent developmental stages appear to be well-known to the hematologists. The romantic development of the knowledge of pernicious anemia was recited. The status of the erythroblasts was also mentioned. Slides illustrating various cell changes in anemia were shown.

"The Origin of Liver Disease" was discussed by H. Goldstein, of Canada.

May 22, 1935

The meeting was a symposium on "Maternal Mortality," and was arranged for the purpose of amplifying the facts presented in the latter part of the last academic year by the Committee on Maternal Mortality. The papers appeared in full in *The Weekly Roster and Medical Digest*.

"Hemorrhage" was the topic assigned to Newlin F. Paxson. This phase of maternal mortality was introduced by slides containing the statistics of the previous study in comparison with the results of subsequent studies. Abortion showed a slight increase as did sepsis. Accidents of labor showed a slight decrease as did also deaths from hemorrhage. In the period from 1931 to 1933, 77 women died from hemorrhage, whereas in 1934 there were 30 deaths from this cause. The incidence of placenta previa and premature separation of the placenta remains about the same. In 7 cases of premature separation of the placenta the clinical data were sufficiently complete to be shown on the screen. It would seem that toxemia was the factor that precipitated death in 3 of these cases definitely and possibly in 1 other case. Two of these patients had toxemia with previous pregnancies. The effect of the toxemia was very evident in those that died.

In the majority of these patients there had been adequate prenatal care, according to the standards now in vogue. It is gratifying to note that none of these deaths could be attributed to error on the part of the attending physician. Three deaths were definitely assigned to the failure of the patient to cooperate with the physician. The age of the patient does not appear to be a factor of importance.

Regarding the treatment of these 7 cases of premature

separation of the placenta, it was noted that 2 died in delivery, 2 had forceps delivery, and 1 had a cesarean operation. Only 2 of the fatal cases had transfusions; 3 had infusion, 1 of these having had 2. In 3 cases the uterus was packed. Placenta previa occurred in 114 hospital cases in Philadelphia in 1934; 7 of these died. About 50 per cent were under age 30. Multiparity seems to indicate an increased likelihood of this condition. Of 6 fatal cases 2 were admitted to the hospital in labor and shock; 1 had cesarean section, 3 were delivered by cervical dilatation and extraction. These died of shock and hemorrhage. Two received blood transfusions.

Postpartum hemorrhage caused the death of 16 patients in 1934. Seven of these were primiparae. Inversion of the uterus was present in 2 cases; and rupture of the uterus in 4; there were no records in 4. Each of these last 4 deaths followed some kind of obstetric operation. Thirteen patients were white, 3 negroes; 13 were foreign born, 3 native; 3 were under age 21, 12 between ages 21 and 35, and 1 over age 40; 4 were para I, 5 para II, 7 para III; 7 were delivered at home, and 9 in the hospital. In 1934 there were 29,485 deliveries in Philadelphia. Of these, 22,150 were delivered in hospitals, the remainder at home. The fatality in postpartum hemorrhage is $2\frac{1}{2}$ times greater in delivery at home than in the hospital. Five patients had had complications of previous hemorrhage. The incidence of induced labor in nonoperative delivery would seem to point towards the production of postpartum hemorrhage. There were 9 spontaneous deliveries, 3 forceps, 3 versions, and 1 cesarean operation. The treatment covered oxytocics in 11 cases, packing in 7, transfusion in 5, and infusion in 7. Some cases received no treatment of any kind at home. The responsibility was assigned to the physician in 8 cases and to the patient in 3; the result was considered unavoidable in 5. For the prevention of placenta previa it was suggested: That full time be allowed for the placenta to separate after the birth of the baby; careful watching of the patient for at least 2 hours after delivery; care in the selection of the operation to be performed and the time for its performance; and restoration by transfusion and infusion.

In discussion James F. Carrell elaborated upon the points stressed, especially as regards premature separation of the placenta. He emphasized the fact that all pregnant women suffering from toxemia are constantly exposed to the danger of premature separation of the placenta, and clinical findings do not seem to be a safe guide in any one instance. Vaginal bleeding in pregnancy always is a danger sign. Women in advanced pregnancy who are toxemic are not good surgical risks. Replacement of blood loss will do much to reduce morbidity and mortality. Intensive prenatal care was advised. Prompt emptying of the uterus and replacing of the blood loss are life-saving measures.

Jacob Walker confined his remarks to the subject of placenta previa. He advised prompt hospitalization as soon as possible after the diagnosis is made, with provision for immediate transfusion. The attending physician should be instructed to seek expert advice in these cases. The patient should be advised to rest until hospitalized since unwise packing may cause infection. The type of delivery varies. With the diagnosis made and transfusion arranged, cesarean operation is the procedure of choice. The advantage of this method lies in the speed of delivery being reduced to a minimum; the bleeding area is exposed and packing is more readily done, the danger of laceration is eliminated, and the child has a better chance to survive.

"Toxemia" was assigned to Robert A. Kimbrough. He stated that in 1934 there had been 33 deaths from this cause; in 20 of these it had been the chief cause of death and in 13 a contributory cause. Eclampsia was the principal manifestation. In only one-third of the cases was the prenatal care adequate. Fourteen of the patients had symptoms 3 weeks before death. All but 1 of the 33 patients were delivered in the hospital, but more than half of them had planned to be delivered at home. Forty-five babies were born alive. One cesarean survived of the 13 essentially hospital cases from the beginning, 13 were satisfactory, 9 inadequate in emergency, 1 inadequate, and 10 not recorded. In the treatment, 30 were deemed adequate under the circumstances, 3 questionable. The responsibility for death was assigned to the physician in 15 instances, to the patient in 9, and unavoidable in 1. In the cases assigned to the physician, 8 gave evidence of toxemia, 5 showed errors in technic, and 2 errors in judgment.

In discussion John C. Hirst referred to an experience of 6765 consecutive births in which there were 19 cases of eclampsia with no deaths, and stressed the value of intensive prenatal care in this condition.

"Puerperal Infections" was the subject of John M. Laferty. He showed that the survey of maternal mortality in Philadelphia in 1934 disclosed that 97 of the 164 deaths, or 59.1 per cent, were due to puerperal infections, either alone or with some contributory factor. There was a considerable drop in the incidence of this condition over that noted in the previous survey, attributed to the physicians in the organization and the improvement in prenatal care as well as to the education of the laity. Although deaths from this condition over a wide area remain about the same, easily 84 per cent could be considered preventable. In this series, the patient was held responsible in 61.9 per cent of the preventable deaths from sepsis. Education of both physician and the laity was urged.

In discussion Owen J. Toland referred to the high incidence of sepsis in induced abortion. This factor accounts for approximately 25 per cent of all maternal deaths. His remarks centered about the advisability of contraceptive instruction as a means of combating the menace of induced abortion. Dr. Laferty in closing the discussion on his paper emphasized the measures necessary for the reduction of the incidence of this condition, which for the most part consisted in better education of both physician and patient.

"Operative Deliveries and Accidents of Labor" was the topic of the paper prepared by J. Marsh Aylesbury, William C. Ely, and Harry J. Sangmeister. Of the 29,485 mothers delivered in 1934 in Philadelphia, 22,150 were delivered in hospitals. In these cases there were 6544 operations, 4893 of which were with forceps. There were 766 breech deliveries, 628 cesarean sections, and 244 versions. The figures for types of home deliveries were not available. There were 26 deaths among those upon whom forceps were used. The detailed analysis of this important phase of the symposium does not admit of abstracting, and the reader is referred to the complete paper now available in *The Weekly Roster and Medical Digest*. Although the number of forceps deaths has been decreased, the preventability factor of the 1934 deaths was error in judgment or technic on the part of the physician. All these preventable deaths might have been obviated if the physician in charge had consulted with a man of greater obstetric experience.

SAMUEL HORTON BROWN, *Reporter*.

WYOMING

July 10, 1935

The quarterly meeting was held at Tunkhannock.

It was decided to have the annual outing in the form of a clam bake, at the summer home of Van C. Decker, on the Tunkhannock Creek.

J. William White of Scranton gave a comprehensive summary of "Breast Tumors." He drew upon the work of the late Jonathan M. Wainwright and stressed the removal of nearly every mass in the breast as the safest way to control cancer of the breast.

ARTHUR B. DAVENPORT, *Reporter*.

YORK

June 19, 1935

James F. Wood, president *pro tem*, presided.

David A. Cooper, Philadelphia, gave an address on "Pneumothorax in Pulmonary Disease." He said in part:

Pneumothorax is mostly used in pulmonary tuberculosis. Its use may be considered the greatest advance in treating that disease in the past 50 years. It is also applied to other pulmonary diseases: Bronchiectasis, lung abscess, lobar pneumonia, diagnostically in lung tumors, as a preliminary to chest surgery, to stop expectoration of blood (hemorrhage), to close cavities in lung, and to decrease blood circulation and lymphatic drainage in pulmonary disease.

The technic of introducing air into the interpleural space was demonstrated by the exhibition of the improved Robinson apparatus; the needles, the water pressure in the manometer, and the complications which should be considered when administering air were discussed. The initial treatment, the avoiding of pressure in the apparatus, and the use of 1 per cent novocain solution for anesthesia were all stressed. There should be a negative pressure of 4 mm. of water before giving treatment. The initial dose is 200 to 400 c.c. of air. Larger amounts predispose to effusion. The frequency of refills depends upon the type of the disease and the object to be attained.

Artificial pneumothorax is useful in 30 to 40 per cent of the cases of pulmonary tuberculosis. Following are some of the indications for its use: Advanced unilateral pulmonary tuberculosis with or without cavity (exudative pathologic lesion), repeated hemoptysis, unilateral disease with slight lesion in contralateral lung, and spontaneous ruptured lung. If there is a recurring pleural effusion, the air should be used after removal or to replace fluid. In bilateral disease, it should be used on the worst side first, then on the other side.

The duration of maintaining pneumothorax depends upon the extent and character of the disease; generally it is 2 or more years. The end results are difficult to evaluate although 70 to 80 per cent are successful if secured in time for effective collapse.

The use of pneumothorax in bronchiectasis is limited. Good results may be secured in early cases and in children, but it is not applicable to old cases. Pneumothorax is frequently not employed early enough. Rist (France) states that pneumothorax is effective in bronchiectasis if it is utilized early and coupled with postural and bronchoscopic drainage.

Pneumothorax has a definite place in pulmonary abscess. If the abscess is centrally located, pneumothorax

is good and will lead often to cure. It is of no value, however, if abscess is in the lower half of the lung. Hemorrhage in the abscess may be controlled.

Pneumothorax was first used in lobar pneumonia in 1931. It is of value in selected early cases and in cases in which the disease is unilateral; it stops pleural pain and lessens dyspnea. There is a mortality of 20 to 25 per cent, however, despite pneumothorax. The initial treatment is usually followed in 12 to 24 hours by a refill. Frequent small refills are most desirable. Pneumothorax is a rational form of therapy in some cases.

In intrathoracic tumors, pneumothorax is a diagnostic procedure to delineate the tumor.

Before such operations as pneumonectomy and lobectomy artificial pneumothorax is used.

Lantern slides were shown to illustrate the use of artificial pneumothorax in unilateral and bilateral pulmonary tuberculosis. There were cases showing the use of bilateral pneumothorax. Its use was demonstrated in lung abscess, pneumonia, and to delineate intrathoracic tumors.

In discussion George E. Holtzapple, York, asked if bed rest would be advocated first for the patient suffering with tuberculosis; if not, how soon after a diagnosis was made would pneumothorax be recommended. H. Malcolm Read, York, asked in what percentage of cases pleural effusion occurred and what drug was used. J. C. Atkins, Red Lion, asked why the speaker used calcium gluconate rather than any other drug.

Dr. Cooper, in closing, stated that the type of the disease determines how soon to use collapse therapy; he often uses pneumothorax as soon as diagnosis is

made. In tuberculous pneumonia he suggested that pneumothorax therapy be done at once. From 20 to 50 per cent of tuberculous cases develop effusion on collapse therapy; the technic of administration causes effusion mostly. Dr. Cooper prefers a small amount of air for refills repeatedly rather than large amounts infrequently. Calcium gluconate intramuscularly for complicating effusion has been recently advocated by English physicians to prevent exudative phenomena.

H. MALCOLM READ, *Reporter*.

WEST SECTION FIFTH COUNCILOR DISTRICT

The Twenty-ninth Annual Meeting of the West Section of the Fifth Councilor District was held on Thursday, July 18, 1935, at Piney Mountain Inn, Adams County. The attendance totalled 76, with many wives, daughters, and sisters of physicians present.

Two-minute reports were given by the district censors, after which the following subjects were presented: "Socialized Medicine," Clarence R. Phillips, Harrisburg, Trustee and Fifth District Councilor; "Emergency Medical Relief—A Coördinate Project," George L. Laverty, Harrisburg, chairman, State Society Medical Advisory Committee to the State Emergency Relief Board; "Clinical Allergy," Richard Kern, Philadelphia; "Prenatal and Maternal Care," Ruth Hartley Weaver, Philadelphia. All of these presentations were enthusiastically received.

Following the program dinner was served, and golf and cards were available for those who wished to play.

The Woman's Auxiliary to The Medical Society of the State of Pennsylvania

MRS. GEORGE C. YEAGER, *Editor*, 1419 E. Susquehanna Ave., Philadelphia, Pa.

INVITATION TO CONVENTION

The eleventh annual meeting of the Woman's Auxiliary to The Medical Society of the State of Pennsylvania will be held in Harrisburg Sept. 30 to Oct. 3, 1935.

We extend to all the members of the Auxiliary a cordial invitation to attend this convention. Will you kindly see that notices of this annual meeting appear in your bulletins or in the publications of your county society? Please stress the dates, Sept. 30 to Oct. 3, and urge all members and friends to be present.

Harrisburg is honored in having this convention and is anxious indeed to reciprocate the kindnesses of others who have entertained us. Let us honor our state president, Mrs. Laurrie D. Sargent, by our attendance, thereby strengthening the organization of which we are so proud to be a part,

May I suggest that you make your hotel reservations early. Mrs. Josiah F. Reed, 508 North Second Street, Chairman of Hotels, will be happy to assist you.

EUNICE E. (MRS. JOSEPH W.) SHAFFER,
Convention Chairman.

THE STATE CONVENTION IN HARRISBURG

September 30 to October 3, 1935

One of the events planned by the Woman's Auxiliary to the Dauphin County Medical Society for the entertainment of their guests at the State Convention to be held in Harrisburg is a trip to the town of Hershey, which was laid out and built in 1902 by M. S. Hershey, for whom it is named. It is chocolate town, and

one may choose to live on Chocolate Avenue or Cocoa Avenue or other streets with intriguing names.

Hershey is probably the most unique town in the United States. The factory is a going concern that supports the community, and there is no unemployment. From the profits of this vast business Mr. Hershey has established an industrial school for orphan boys. There are homes, farms, and schools. The new high school is the latest word in beauty, equipment, and resources.

Not only orphan boys share Mr. Hershey's wealth. On July 4 he gave to the 5 churches of the town \$100,000 as an "Independence Day gift to free them of indebtedness that they might begin the fiscal year with renewed vigor." This gift was made to all the churches with no distinction between the 5 denominations.

There is a beautiful public park and zoo, a community house with a theater and with every facility for recreation. The town is beautiful. To crown this enterprise, when nothing else remained to be done for the town, Mr. Hershey built on a hill that overlooks the town and the encircling valley a magnificent hotel. No money was spared in its construction or furnishing. To this hotel we shall go for luncheon on the last day of the convention after touring Hershey and possibly the factory, which is always open to visitors, should any of the guests be interested in seeing the "Bars" and "Buds" made.

Harrisburg has another place of interest to all Pennsylvanians. It is the Forum of the State Education Building, where the auxiliary is invited to attend one meeting. This Forum was completed in 1931 and has been called the most beautiful auditorium in America. We can well believe this statement when we consider that it cost approximately \$5,500,000 to build this edifice. The whole interior is constructed of marble brought from Germany, Italy, Belgium, and Africa, as well as from Vermont and Tennessee. In the ceiling of the Forum more than 1000 stars are represented; 365 are of crystal glass and can be illuminated with some gradation of brilliancy according to the stars' magnitude.

Need I say more to urge you to come to the convention?

Harrisburg as the State Capital belongs to all Pennsylvanians, and we who live in Dauphin County will be waiting to welcome you when you come to Harrisburg in October.

MYRNA MILLER (MRS. GEO. H.) SEAKS,
President, Dauphin County Auxiliary.

TENTATIVE PROGRAM

THE WOMAN'S AUXILIARY TO THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

Eleventh Annual Session, Harrisburg

September 30-October 3, 1935

Headquarters: Penn-Harris Hotel

Monday, September 30

- 1:00 p.m. Luncheon at Colonial Country Club. Followed by golf and bridge tournaments. Make reservations with Mrs. George F. Gracey, River Road, Harrisburg, by September 24.
Luncheon 75c. Tournament \$1.00.
- 6:30 p.m. Executive Board Dinner. Board meeting to follow.
Civic Club, Front Street, Harrisburg. Make reservations with Mrs. John H. Fager, Jr., 1952 High Street, Camp Hill, by September 24.
Dinner, \$1.75 per plate.

Tuesday, October 1

- 9:00 a.m. General Meeting, Mrs. Laurrie D. Sargent presiding.
Parlor A.
Singing "America."
Invocation, Dr. Chester S. Simonton.
In Memoriam, Mrs. Clarence R. Phillips, past president.
Greetings, Mrs. George H. Seaks.
Response, Mrs. Charles H. Smith, past president.
Report of Registration Committee, Mrs. Carson Coover.
Minutes, Mrs. Frances P. Dwyer.
Report of National Convention, Mrs. Cecil F. Freed.
Announcement of Nominating Committee, Mrs. Edward Lyon, past president.
Roll call of counties.
Report of officers.
Corresponding Secretary, Mrs. J. H. Corwin.
Recording Secretary, Mrs. F. P. Dwyer.
Treasurer, Mrs. E. Kirby Lawson.
Auditor's Report.
- 12:15 p.m. Auxiliary Luncheon. Ballroom.
Make reservations with Mrs. E. Kirby Lawson, 2533 Walnut Street, Harrisburg, by September 24.
Luncheon \$1.25.
Mrs. George H. Seaks presiding.
Speakers: Dr. Alexander H. Colwell, Dr. Moses Behrend, Dr. Walter F. Donaldson, Dr. Henry R. Douglas.
Guests: Dr. Edith MacBride-Dexter, Dr. Clarence R. Phillips, Dr. William E. Parke, Dr. Walter S. Brenholtz, Dr. Lewis T. Buckman, Dr. Arthur Gross, Dr. Frank C. Hammond, Mr. Lester H. Perry, Miss Ida L. Little.
- 2:30 p.m. General Meeting, Mrs. Sargent presiding.
Minutes.
Unfinished business.
New business.

Reports of standing committees (3-minute limit).

Election of delegates to National Convention.

Adjournment.

7:00 p. m. Dinner in honor of past presidents. Ballroom.

Dinner \$2.00 per plate.

Mrs. Clarence R. Phillips, chairman.

9:00 p. m. Entertainment to follow, Mrs. W. Minster Kunkel, chairman.

Wednesday, October 2

9:00 a. m. General Meeting, Mrs. Sargent presiding. Minutes.

Unfinished business.

New business.

Reports of counties (3-minute limit).

Address, Dr. Emlyn Jones, director, Bureau of Vital Statistics, "Infant and Maternal Mortality in Pennsylvania."

Report of Committee on Resolutions, Mrs. Frederick J. Bishop.

Report of Credentials Committee, Mrs. Carson Coover.

Address of President, Mrs. Laurie D. Sargent.

Report of Nominating Committee, Mrs. Edward Lyon.

Election and installation.

Adjournment.

1:30 p. m. The Dauphin County Auxiliary will entertain the visiting members of the State Auxiliary in honor of Mrs. Laurie D. Sargent, retiring State President, at a luncheon at the Hershey Hotel. Buses leaving the Penn-Harris Hotel at 12:30 p. m.

Transportation 60 cents.

Mrs. David I. Miller, chairman.

8:00 p. m. Public Meeting in Forum of Educational Building, followed by President's Reception and Ball, Penn-Harris Ballroom.

Thursday, October 3

10:00 a. m. Post-Convention Executive Board Meeting, Mrs. W. Burrill Odenatt presiding. Parlor A.

11:00 a. m. General Meeting.

Outline of policies, 1935-1936.

Announcement of committee appointments.

Final report of Committee on Credentials and Registration, Mrs. Carson Coover. Adjournment.

REPORT OF THE ATLANTIC CITY MEETING

The annual session of the Woman's Auxiliary to the American Medical Association held in Atlantic City, June 10 to 14, was one of the most successful conventions in its history. The registration was 1849. With Delaware and Pennsylvania acting as hostesses with New Jersey, there was a variety of entertainment—din-

ners, luncheons, and teas, all with splendid musical programs. The musicale and tea given Tuesday afternoon by the Philadelphia ladies was a very colorful and lovely affair. I have been asked by the Atlantic City chairman and her committee to extend their appreciation and thanks to the Pennsylvania ladies for their effort and coöperation in making it possible to carry out their program.

The general meetings were interesting, with good attendance at all sessions. Thirty-three state reports were read, showing an increase in educational programs and philanthropic work. The exhibit was one of the high lights, with 28 states sending exhibits.

Mrs. Robert W. Tomlinson closed her year with the same enthusiasm with which she began, saying, "If your ideals are true to our men and if your sincerity of purpose is strong enough and your application to your plans faithful enough, we shall go far and in the right way."

As Mrs. Roger N. Herbert accepted the gavel, she won the hearts of all by her faith in the Auxiliary, stating that our greatest opportunity was in the interpretation of the medical profession to the public.

The annual session of 1935 closed with an enthusiasm that could not be denied, giving to all who were present an inspiration to carry on to higher ideals and results in the coming year.

NAOMI L. (MRS. LAURIE D.) SARGENT,
President.

MINUTES OF THE TENTH ANNUAL CONVENTION OF THE WOMAN'S AUXILIARY TO THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA

Tuesday Morning, Oct. 2, 1934

The opening meeting was called to order at the First Presbyterian Church House, Wilkes-Barre, at 9:00 a. m., with Mrs. Edward Lyon, president, in the chair.

After the singing of "America," the invocation was given by Rev. Paul S. Heath, D.D., of Wilkes-Barre.

An impressive "In Memoriam Service" was held, with Mrs. J. Newton Hunsberger presiding. A list of deceased members was read. The audience stood for a moment of reverent silence in tribute to their memory.

Dr. E. W. Bixby, president of the Luzerne County Medical Society, gave the address of welcome. Mrs. Clarence R. Phillips, past president, State Auxiliary, responded on behalf of the auxiliary.

There being the requisite number of delegates present, the president announced the convention open for business.

It was moved by Mrs. Hunsberger, duly seconded and carried, that as the minutes of the Ninth Annual Meeting had been printed in the JOURNAL, the reading thereof be dispensed with.

Announcements concerning convention arrangements

were made by Mrs. Charles H. Miner, convention chairman.

The report of the Committee on Credentials and Registration was made by Mrs. Stanley L. Freeman as follows: Executive board members, 27; delegates, 47; alternates, 11; guests, 17; auxiliary members, 144; total, 246.

Mrs. David W. Thomas, chairman, Nominating Committee, announced that the ballot was posted in the rear of the room.

Upon motion the meeting adjourned at 9:35 a. m. to permit attendance at the opening meeting of the State Medical Society.

Tuesday Afternoon, Oct. 2, 1934

Following a luncheon at the Irem Temple Country Club, given by the Luzerne County Auxiliary in honor of Mrs. Edward Lyon, State President, and attended by over 450 auxiliary members and guests, the second general meeting was called to order by the president, Mrs. Edward Lyon, at 3:30 p. m., at the club.

The address of welcome was given by Mrs. C. W. Prevost, president, Luzerne County Auxiliary. Mrs. J. F. McCullough, past State Auxiliary president, responded.

Upon motion by Mrs. David W. Thomas, seconded by Mrs. Brallier and carried, reading of the minutes of the previous meeting was dispensed with.

Reports were read by Mrs. Edward Lyon, president, Mrs. J. H. Burrows, corresponding secretary, and Mrs. J. W. Shaffer, treasurer.

A motion was made by Mrs. S. A. E. Brallier, seconded by Mrs. Brenholtz, that these reports be accepted with thanks and filed. Motion carried.

A report of the National Convention at Cleveland, June 11 to 14, was given by Mrs. Laurie D. Sargent, president-elect, State Auxiliary.

A communication from the president of the National Auxiliary, Mrs. Robert W. Tomlinson, who was unable to attend this convention, was read by Mrs. Burrows.

The auditor's report was read by the corresponding secretary, Mrs. Burrows.

A motion was made by Mrs. Wilkinson, seconded by Mrs. Stark, that the auditor's report be accepted. Motion carried.

Reports were made by the following committee chairmen: Archives, Mrs. David B. Ludwig; By-laws, Mrs. Walter S. Brenholtz; District Councilor, Mrs. Andrew L. Benson; *Hygeia*, Mrs. Wm. Powell; Nomination, Mrs. David W. Thomas; Periodic Health Examination and Public Health Education, Mrs. E. Kirby Lawson; Public Relations, Mrs. Robert H. Jeffrey; Publicity, Mrs. Wilmer Krusen.

Reports of Mrs. John F. McCullough, budget chairman, and Mrs. Augustus S. Kech, legislative chairman, were postponed until Wednesday morning.

A motion was made by Mrs. J. Newton Hunsberger, seconded by Mrs. Francis P. Dwyer, that the reports be accepted with thanks and filed. Motion carried.

There being no further business, the meeting was adjourned at 4:40 p. m.

Wednesday Morning, Oct. 3, 1934

The meeting was called to order by the president, Mrs. Edward Lyon, at the First Presbyterian Church House, at 9:00 a. m.

It was moved by Mrs. David W. Thomas, seconded

by Mrs. Brallier and carried, that the reading of the minutes of the previous meeting be dispensed with.

Mrs. J. F. McCullough, chairman of the Budget Committee, presented a recommended budget for the year 1934-35. A motion was made by Mrs. Bulford and seconded by Mrs. Brenholtz that the budget be accepted. Motion carried.

Reports were made by the following counties: Allegheny, Berks, Blair, Bucks, Cambria, Chester, Clinton, Cameron, Dauphin, Delaware, Elk, Erie, Fayette, Franklin, Huntingdon, Indiana, Lackawanna, Lancaster, Lebanon, Lehigh, Luzerne, Lycoming, Mifflin, Montgomery, Montour, Monroe, Mercer, Northampton, Philadelphia, Somerset, Tioga, Westmoreland, Washington, and York.

Mrs. Burrows, corresponding secretary, reported that she had filed all reports received by mail.

The following counties did not report: Beaver, Bradford, Butler, Carbon, Center, Clarion, Clearfield, Greene, Lawrence, Northumberland, Snyder, Potter, Schuylkill, Warren, and Wyoming.

The legislative report deferred from Tuesday afternoon's meeting was presented by Mrs. Augustus S. Kech, chairman.

The report of the Resolution Committee was read by Mrs. Brenholtz, chairman. It was moved by Mrs. Brenholtz, seconded by Mrs. Kech, that the resolution be adopted. Motion carried.

The election of delegates to the National Convention followed.

Mrs. Lyon appointed Mrs. R. Powers Wilkinson, Mrs. V. P. Edwards, Mrs. Cecil Freed, and Mrs. L. E. Wurster as tellers of election.

Mrs. Lyon stated, "According to the Constitution and By-Laws and the paid-up membership, 7 delegates to the National Convention are to be elected at this time."

The following were nominated: Mrs. James H. Burrows, Lycoming County; Mrs. R. R. Schultz, Lackawanna County; Mrs. Frank R. Nothnagle, Delaware County; Mrs. R. Powers Wilkinson, Philadelphia County; Mrs. William F. Krick, Berks County; Mrs. Chas. J. Swalm, Philadelphia County; Mrs. C. W. Prevost, Luzerne County.

It was moved by Mrs. Hager, seconded by Mrs. Dwyer and carried, that the nominations be closed.

Inasmuch as 7 were to be elected and only 7 had been nominated, it was moved by Mrs. Wilmer Krusen, seconded by Mrs. Charles Smith and carried, that they be declared elected by acclamation. A rising vote was given and the 7 nominated as delegates were declared elected.

Mrs. Stanley W. Freeman, chairman of the committee on Credentials and Registration, reported a registration of 472.

Announcements were made by the Convention Chairman, Mrs. Charles H. Miner.

The report of the Nominating Committee was given by the chairman, Mrs. David W. Thomas, submitting the following names:

President-elect—Mrs. W. Burrill Odenatt, Philadelphia. A motion was made by Mrs. Wilkinson, seconded by Mrs. Brallier, that nominations be closed. Motion carried.

First Vice-president—Mrs. Michael J. Noone, Scranton. A motion was made by Mrs. Wilkinson, seconded by Mrs. John A. Campbell, that nominations be closed. Motion carried.

Second Vice-president—Mrs. Walter S. Brenholtz, Williamsport. A motion was made by Mrs. J. Newton Hunsberger, seconded by Mrs. Francis P. Dwyer, that nominations be closed. Motion carried.

Third Vice-president—Mrs. Moses Behrend, Philadelphia. A motion was made by Mrs. Augustus S. Kech, seconded by Mrs. S. A. E. Brallier, that nominations be closed. Motion carried.

Recording Secretary—Mrs. Francis P. Dwyer, Renovo. A motion was made by Mrs. Page, seconded by Mrs. Henry Hager, that nominations be closed. Motion carried.

Treasurer—Mrs. E. Kirby Lawson, Harrisburg. A motion was made by Mrs. Schultz, seconded by Mrs. Whitney, that nominations be closed. Motion carried.

Directors—Two Years: Mrs. Edward Lyon, Williamsport; Mrs. Charles H. Miner, Wilkes-Barre; and Mrs. W. D. Griesemer, Reading. A motion was made by Mrs. J. F. McCullough, seconded by Mrs. Walter S. Breiholtz, that nominations be closed. Motion carried.

Motion was made by Mrs. Prevost, seconded by Mrs. Bulford, that the secretary cast the ballot for the above officers, and that they be declared elected. The motion was carried, and the secretary cast the ballot as ordered.

The newly elected officers and directors were introduced and installed by Mrs. Edward Lyon.

Mrs. Lyon, retiring state president, presented the gavel to Mrs. Laurie D. Sargent, the incoming president, with best wishes for a successful year.

Mrs. Sargent gave a brief outline of her plans for the coming year.

There being no further business, the meeting adjourned at 11:40 a.m.

Respectfully submitted,

FLORENCE (MRS. EDWARD) LYON, *Pres.*,

ELEANOR (MRS. JAMES) BURROWS, *Sec.*

Executive Board Meeting, Oct. 4, 1934

The meeting at the First Presbyterian Church House, 9:00 a.m., was called to order by Mrs. Sargent with prayer.

It was moved and seconded that the minutes be dispensed with. Motion carried.

Mrs. Sargent presented the following chairmen of committees: Archives, Mrs. David B. Ludwig, Allegheny County; Budget, Mrs. John F. McCullough, Allegheny County; By-Laws, Mrs. William A. LaRoss, Washington County; District Councilor, Mrs. David W. Thomas, Clinton County; *Hygeia*, Mrs. Wm. H. Howell, Blair County; Legislative, Mrs. Augustus S. Kech, Blair County; Nomination, Mrs. Joseph W. Shaffer, Dauphin County; Public Health Education, Mrs. John R. Davies, Tioga County; Public Relations, Mrs. Daniel N. Bulford, Allegheny County; Publicity, Mrs. George C. Yeager, Philadelphia County.

The president asked the sentiment of the board concerning the midyear board meeting in February.

Following discussion in which all seemed to favor holding the meeting, it was moved by Mrs. Edward Lyon that the midyear board meeting be held at Harrisburg, in February. Motion seconded by Mrs. Dwyer, and carried.

Mrs. Sargent then outlined her policies for 1935.

Mrs. Sargent announced as parliamentarian Mrs. Charles Long of Luzerne County. The board meeting adjourned.

The president then presented Miss Katherine Toohey, dean of girls at the Coughlin High School, Wilkes-Barre, who spoke on "The Coöperation of the Medical Department in the Schools."

Mrs. Stanley S. Freeman presented the final report of the Committee on Credentials and Registration as follows:

Total registration, 425; delegates, 65; alternates, 25; guests, 56; auxiliary members, 253; executive board, 26; also 3 guests, one each from California, Michigan, and New York.

There being no further business, upon motion by Mrs. Lyon, seconded by Mrs. Dwyer and carried, the meeting adjourned at 10:55 a.m., subject to call.

Respectfully submitted,

NAOMI (MRS. LAURIE D.) SARGENT, *Pres.*,

MARY (MRS. FRANCIS P.) DWYER, *Sec.*

COUNTY AUXILIARY REPORTS

Allegheny.—(Public Relations Report) Medical auxiliary work in general may be divided into 3 phases; namely, social, educational, and philanthropic. The scope of Public Relations Committee activities, however, is distinctly educational and restricted to the field of health. To do effective work requires a knowledge not only of the aims and purposes of our own state and national auxiliaries and medical societies, but a broad vision of the work of other health groups in our own state and county. To achieve this end, we compiled last year a book which we called our "Health Summary," which contained sufficient literature from 22 organizations as to give a fair picture of health activity in Allegheny County. This year the book has been revised and brought up to date that it may adequately serve next year's committee by Mrs. George Leibold as her special committee task. We feel that this book serves a double purpose, that of showing which phases of health work have been stressed and those which have been given little or no consideration, and also as a reference book to contact executives and board members of the different groups.

There are 2 distinct phases of Public Relations Committee work. The first is that of educating and informing the auxiliary membership. To this end the following work has been done by our committee:

1. An article was prepared for the *Pittsburgh Medical Bulletin*, giving a review of the convention of the State Medical Auxiliary.
2. Four other articles were prepared for publication during the year.
3. A conference was held with Dr. Alexander H. Colwell, a member of the Advisory Committee to the Woman's Auxiliary, October 16, to outline various future projects.
4. Five hundred invitations were distributed for the "Health Day" program of the Medical Society. Announcement of this meeting was also made before 7 different groups.

The second phase of our work, and the most important and far-reaching, is that of coöperation between our auxiliary and other health agencies. We feel that the work of our committee this year has greatly strengthened this tie through the following activities:

1. A committee of 16 was formed to assist last summer in the work of the Emergency Child Health Committee.
2. The radio broadcast November 20, arranged by the committee at which time Dr. H. G. Schleiter spoke, brought favorable response.
3. The first Health Program Conference of its kind to be called in Allegheny County was held October 25, and was attended by 35 representatives from various clubs, parent-teacher associations, and church groups.

The purpose of the conference was 3-fold: (1) To assist these groups in planning health programs; (2) to give them helpful authentic materials approved by the State Medical Society; and (3) to try to centralize the efforts of many groups upon a few urgent health projects. The speakers were Dr. H. J. Benz, Pittsburgh Department of Health, Mr. George Taylor, Pittsburgh District Dairy Council, and Dr. R. R. Jones, General Health Council.

4. Our committee made a study of the consumption of milk in our county during the "food order" period of procedure, and then when on cash relief. Finding a great reduction in milk consumption since cash relief went into effect, our committee worked with Dr. R. R. Jones, president of the General Health Council, in an effort to remedy the condition, which is felt to endanger the health of the children.

5. Our committee was represented at all sessions of the "Crime Conference," January 29 to February 1.

6. The second Health Program Conference was held April 2; 17 different groups were present, making a total of 50 different groups contacted at both conferences. The 2 phases of health stressed at this meeting were community health and mental hygiene. Dr. William W. McFarland and Dr. Charles H. Henninger were the speakers. Mrs. Frank E. Gray acted as secretary at both conferences.

7. Talks have been given by the chairman before 3 club groups and 5 parent-teacher associations in Allegheny County during the year.

8. The committee served in carrying on the work of "Tag Day" for the Children's Hospital, being assigned Kaufmann's Store. Twenty girls served during the day from 8:15 a. m. to 5:30 p. m. in 4 groups. Mrs. H. Stanley Wallace secured the first group, Mrs. George C. Seitz the second, Mrs. Charles G. Eicher the third, and Mrs. George Leibold and Mrs. Vernon D. Thomas the fourth.

9. On May 15, your chairman addressed the Woman's Auxiliary of the Odontological Society of Western Pennsylvania in the Keystone Building of Pittsburgh.

These contacts have served a double purpose, that of helpfulness and, what is infinitely more important, to give the real interpretation of the interests and the high ideals for which our Medical Society stands.

A Public Relations Committee is the beacon, lighting the various paths the auxiliary must follow to broaden and make more effective its lines of endeavor. Only when the beacon is brightest can it fulfill its real mission. In the years to come, may it shed its rays ever higher and dispel any shadows which may make less effective our work or that of the Medical Society we strive to serve.

Public Relations Committee,

MRS. GEORGE LEIBOLD,
MRS. FRANK E. GRAY,
MRS. THEODORE BAKER,
MRS. CLARENCE KETTERER,
MRS. GEORGE C. SEITZ,
MRS. H. STANLEY WALLACE,
MRS. D. N. BULFORD, *Chairman.*

Bucks.—The auxiliary met at the Fountain House, Doylestown, May 8. A short business session preceded the dinner with the members of the Medical Society, after which the ladies joined the doctors at the Court House to listen to an address by Dr. Arthur Christie, Washington, D. C., on "The Doctor and Social Insurance."

Medical News

Births

TO DR. AND MRS. WILFRED W. WILCON, of Montoursville, a daughter, June 16.

TO DR. AND MRS. FREDERICK SANFORD, of Jersey Shore, a daughter, June 23.

Engagements

MISS MARY SHUE, of Mt. Union, and Dr. Charles K. Fetterhoff, chief resident physician of the Harrisburg Hospital.

MISS LOUISE WILSON SINCLAIR, daughter of Dr. and Mrs. John F. Sinclair, and Mr. Wilson Woelpper, Jr., both of Philadelphia.

MISS MILDRED CRAWFORD GRAY, daughter of Dr. and Mrs. Henry W. Gray, of Philadelphia, and Mr. Norman Alexander C. Senior, of Beverly Hills, Calif.

Marriages

MRS. ELSIE FINN to Dr. Reuben M. Lewis, both of Philadelphia, May 21.

MISS HELEN GRACE YOUNG to Dr. Robert Bell Walker, both of Philadelphia, June 8.

MISS DOROTHY SHOWALTER, of Mifflinburg, to Dr. Charles F. Straub of Middleburg, June 19.

MISS MARY ELIZABETH LANKIN PULLMAN, Bridgeport, Conn., to Dr. DeWitt Dominick, of Philadelphia, July 13.

Deaths

JOSEPH R. BECKLEY, Lebanon; University of Pennsylvania School of Medicine, 1885; aged 76; died recently. Dr. Beckley was a member of his county and State medical societies and the A. M. A.

LEE MCKINSTRY BRYAN, Philadelphia; Georgetown University School of Medicine, Washington, D. C., 1921; aged 43; died suddenly from heart disease, July 11. He served his internship in the Misericordia Hospital, Philadelphia, and later became a member of the staff, also serving on the staffs of St. Vincent's Hospital and the Delaware County Hospital. During the World War, Dr. Bryan served in the Navy. He was a member of McCall Post, American Legion, and a former captain in the National Guard. He was a member of his county and State medical societies and the A.M.A. A wife and 2 daughters survive.

LOWRY N. BURCHINAL, Point Marion; University of Maryland School of Medicine and College of Physicians and Surgeons, Baltimore, 1886; aged 72; died June 11. Dr. Burchinal was a member of his county and State medical societies and the A.M.A.

JOHN SEPTIMUS CADWALADER, Meadville; Western Pennsylvania Medical College, Pittsburgh, 1901; aged 69; died May 7, of heart disease. Dr. Cadwalader was a former member of the Allegheny County Medical Society.

ALLAN B. DALTON, Media; Hahnemann Medical College and Hospital of Philadelphia, 1921; aged 43; was found dead in a swimming pool, July 11. It is believed that he was stricken with a heart attack.

MRS. IZORA HUNTER DAVIS, wife of Dr. J. Leslie Davis, of Philadelphia, June 11.

FRANK H. FREDERICK, Pittsburgh; University of Pittsburgh School of Medicine, 1897; aged 65; died June 21. Dr. Frederick was a member of his county and State medical societies and the A. M. A.

WILLIAM DUNN GATES, Indiana; Hahnemann Medical College and Hospital of Philadelphia, 1898; aged

70; died June 25. Dr. Gates was a member of his county and State medical societies and a Fellow of the A. M. A.

JOSEPH M. HARRIGAN, Wilkes-Barre; Temple University School of Medicine, Philadelphia, 1928; aged 33; died June 15. Dr. Harrigan was a member of his county and State medical societies and the A. M. A.

ALLEN LEWIS KREPPS, Pittsburgh; University of Pittsburgh School of Medicine, 1897; aged 63; died June 24. Dr. Krepps was a member of his county and State medical societies and the A. M. A.

CARLTON S. L. McCULLOUGH, Steubenville, Ohio; aged 41; died June 18, of coronary thrombosis after a short illness. He was graduated from the University of West Virginia with the degree of Bachelor of Science, and from the School of Medicine of the University of Maryland. He was a veteran of the World War and a member of the Ohio State Medical Association.

Dr. McCullough is a son of Dr. Samuel Logan McCullough, of Oakdale, Pa., and a brother of Drs. William J. L. McCullough and Clarence McCullough, of Washington, Pa., and Dr. Charles L. McCullough, of Pittsburgh. Dr. George A. Perkins, of Washington, Pa., is a brother-in-law.

JACOB L. MOWERY, Strasburg; Jefferson Medical College, 1878; aged 80; died July 4. Dr. Mowery was born in West Lanpter Township, Lancaster County, the son of the late Jacob and Emma Lefever Mowery. He attended the public schools of Strasburg and was graduated from the Millersville Normal School after which he taught school in West Lanpter Township for 3 years. In 1875 he took a 2-year apprenticeship with Dr. I. H. Mayer of Pittsburgh. Upon graduation he began practice in Conestoga Center where he remained for 6 years; he also practiced at Masonville and Letort before going to Strasburg. He was a member of his county and State medical societies and of the A. M. A. He is survived by his wife, a daughter, and 2 sons.

GEORGE L. RICE, McSherrystown; Washington University School of Medicine, Baltimore, 1872; aged 85; died July 15. Dr. Rice served as coroner of Adams County from 1878 to 1882, and was a member of the State Legislature for one 2-year term. For 36 years he served as justice of the peace in McSherrystown and was active in all of the town's affairs. Two daughters and 3 sons survive.

JOSEPH WELLINGTON SCHOFFSTALL, Sunbury; Jefferson Medical College, 1902; aged 55; died June 23. He was senior surgeon at the Mary M. Packer Hospital, Sunbury. He was a member of his county and State medical societies and a Fellow of the A. M. A. During the World War he served as captain of the Medical Corps of the United States Army in Camp Beauregarde, La., also overseas. He was a member of American Legion Post 201.

P. T. BARNUM SHAFFER, Elizabeth; Western Reserve University School of Medicine, Cleveland, Ohio, 1877; aged 85; died June 25. Dr. Shaffer was a member of his county and State medical societies and the A. M. A.

GEORGE GUY SNYDER, Harrisburg; Medico-Chirurgical College of Philadelphia, 1899; aged 59; died July 13. Dr. Snyder was a graduate of the Lock Haven State Teachers College, was Dauphin County Prison physician since 1920, and was a member of his county and State medical societies and the A. M. A.

HARRY HARTSOCK THOMPSON, Philipsburg; Jefferson Medical College, 1889; aged 68; died July 3 after a long illness. He was a member of the Philipsburg State Hospital staff. He served as a major of the Medical Corps of the United States Army during the World War, having been assigned to overseas service.

He was a member of his county and State medical societies and a member of the A. M. A.

MRS. KATHERINE O. TULLIDGE, Philadelphia, wife of the late Dr. George Tullidge, died June 22 in the Georgetown University Hospital, Washington, D. C. She was the city's first woman school director and served in a West Philadelphia sectional board from 1902 to 1910. She is survived by 2 daughters and 2 sons, one of whom is Dr. E. Kilbourne Tullidge, of Miami, Florida.

Miscellaneous

DR. FLOYD G. SCHULER, of Warren, is convalescing from an attack of pneumonia.

A SCHOLARSHIP for study in Paris has been awarded to Dr. M. N. Brody of the Warren State Hospital, Warren.

THE LEHIGH VALLEY County Medical Society joined the Allentown Medical Club in a summer outing that was held at Shawnee-on-the-Delaware, June 26.

DR. HIRAM B. RUSSELL of Sheffield, Warren County, is recovering from a severe shock received in an automobile collision.

THE AMERICAN PSYCHIATRIC ASSOCIATION announces the removal of its offices to the New York Academy of Medicine, 2 East 103d St., New York City.

DR. VICTOR J. BALUTA, Shamokin, was appointed by the State Department of Health as county medical director for Northumberland County, June 24.

DR. FRANK J. CONAHAN, of Bethlehem, has been appointed medical director of Northampton County to succeed the late Dr. Edgar M. Green, Easton.

DR. FRANCIS R. PACKARD, of Philadelphia, was elected president of the American Otological Society, at the 86th annual meeting held in Toronto, May 29.

THE FINANCIAL NEEDS FOR 1935 of the 52 hospitals participating in the United Hospital Fund, New York City, were estimated June 17, at \$9,440,000.

DR. HERBERT B. CARPENTER and his sister, Miss Anna Childs Carpenter, of Philadelphia, sailed July 3 on the *Conte Grande* for a cruise of the Black Sea. They will return Sept. 1.

DR. C. HOWARD MARCY, president of the Pennsylvania Tuberculosis Society and medical director of the Tuberculosis League of Pittsburgh, recently was installed as president of the Pittsburgh Academy of Medicine.

DR. ALFRED N. RICHARDS, professor of pharmacology in the School of Medicine of the University of Pennsylvania, received the honorary degree of Doctor of Laws at the University of Edinburgh on July 17.

BRIG. GEN. MATTHEW A. DELANEY, commandant of the Medical Field Service School, U. S. Army, Carlisle Barracks, received the honorary degree of Doctor of Science at the annual commencement of Dickinson College, Carlisle, June 10.

DR. FRANCIS JOSEPH DEVER, for the past 15 years chief internist at St. Luke's Hospital, South Bethlehem, Pa., tendered his resignation on June 17, because of pressure of private practice. Dr. Dever was appointed internist emeritus.

DR. ROYAL H. MCCUTCHEON, medical director of the state tuberculosis sanatorium at Mont Alto since October, 1921, has resigned to engage in private practice at Bethlehem. Dr. Charles C. Custer, assistant director, was appointed to succeed Dr. McCutcheon.

AT THE COMMENCEMENT EXERCISES of Ursinus College, Collegeville, Pa., on June 10, the honorary degree of Doctor of Laws was conferred on Dr. Ross V. Patterson, dean, and Sutherland M. Prevost, professor of therapeutics, Jefferson Medical College.

THE BOARD OF TRUSTEES of the American Hospital Association has approved a plan to publish a monthly journal to be called *American Hospitals*, which will replace the present official bulletin of the association. The first issue will appear January 1, 1936.

THE FOLLOWING APPOINTMENTS have been made on the staff of the Williamsport Hospital: Drs. LaRue M. Hoffman and Charles L. Youngman, associates in abdominal surgery; Dr. Marc Bodine, chief of Bronchoscopic Service; Dr. Henry B. Mussina, artist.

THE AMERICAN HOSPITAL ASSOCIATION will hold its 37th annual convention in St. Louis, Sept. 30 to Oct. 4. The Board of Trustees selected St. Louis because of its central location, unexcelled transportation facilities, and superior advantages for staging what is confidently expected to be the largest convention in the history of the association.

DR. WILLIAM S. MIDDLETON, professor of medicine at the University of Wisconsin Medical School, was appointed dean to succeed Dr. Charles R. Bardeen, who died June 12. Dr. Middleton, who is a native of Norristown, Pa., and a graduate of the University of Pennsylvania Medical School, 1911, becomes the second dean of the University of Wisconsin Medical School.

DR. BOWMAN C. CROWELL, of Chicago, was elected to succeed Admiral Cary T. Grayson as president of the Gorgas Memorial Institute, June 15. Dr. Crowell is the author of many publications on tropical diseases and other scientific subjects. Admiral Grayson will continue his association with the institute as chairman of the board.

DR. ESMOND R. LONG has been appointed director of the Henry Phipps Institute for the Study, Treatment, and Prevention of Tuberculosis, Philadelphia. In 1932, Dr. Long was awarded the Trudeau medal of the National Tuberculosis Association. Dr. Charles J. Hatfield, the former director of the Institute, will remain as chairman of the board of directors in charge of administration.

DR. HERBERT SPENCER GASSER, director of the Physiological Laboratories of Cornell University Medical School, has been appointed director of the Rockefeller Institute for Medical Research to succeed Dr. Simon Flexner, who is retiring. Dr. Flexner will devote himself to writing a biography of the late Dr. William H. Welch, who was chairman of the Institute's board of scientific directors until a year before his death in 1934.

THE PARLIAMENT OF FRANCE has passed a law requiring that all physicians and dentists practicing in France shall be French citizens. An amendment deferring enforcement of the law until 1940 was added in the senate. It was pointed out that the decree will probably result in the abandonment of the American Hospital at Neuilly. During discussion of the bill it was brought out that the University of Paris Faculty of Medicine granted degrees last year to 585 Frenchmen and 237 foreigners.

MODERN MEDICINE BARRED IN LIBERIA.—According to *Associated Press News*, July 11, Dr. Paul F. Mitchell, 33-year-old Negro, returned to Boston, Mass., as a stowaway from Liberia after an unsuccessful attempt to establish a practice in the Negro republic. He spent 4 years in Liberia in an effort to bring modern medical methods to members of his race, but reported he was unable to beat down the ancient superstitions there.

AT THE ANNUAL COMMENCEMENT of the Philadelphia College of Pharmacy and Science held June 5, 1935, there were 47 graduates in the department of pharmacy. The honorary degree of Doctor of Pharmacy was conferred upon Dr. William A. Pearson, dean of the Hahnemann Medical College, Philadelphia.

MAYOR LA GUARDIA, of New York City, laid the cornerstone, June 17, for a district health center in the Bronx, the first of 30 similar buildings to be erected throughout the city in the administration's program of preventive medicine. Declaring the city was engaged in a great campaign to combat infectious diseases by health education, the Mayor asserted that the district centers were comparable in importance to the city's model housing program.

MRS. J. NORMAN HENRY, wife of the Director of Public Health of Philadelphia, and her daughter, Miss Josephine DeN. Henry, left the latter part of June for British Columbia. They will visit Mt. Mary Henry, named for Mrs. Henry by the British Columbian government. Mrs. Henry, who is widely known as a horticulturist and who has made this trip 10 times previously, will make collections of dried plants for the Royal Botanic Garden of Edinburgh, the Academy of Natural Sciences, Philadelphia, and the Arnold Arboretum, Jamaica Plain, Mass.

THE MUNICIPAL ISOLATION HOSPITAL at Johnstown, Pa., was dedicated on June 14. So far as can be learned this institution is the only isolation hospital in the United States that is supervised, staffed, and managed by a county medical society and owned by a city.

A bronze tablet was presented by the board of directors and the medical staff to Henry W. Salus, M.D., in recognition of his untiring efforts in creation of the new Municipal Isolation Hospital. Dr. Salus has been medical director for 8 years and chief of the staff for the past 2 years.

DR. FRANK H. KRUSEN, of Philadelphia, has terminated his associations as associate dean of the Temple University School of Medicine; head of the Department of Physical Therapy, Temple University Hospital; and head of the Department of Physical Therapy, Jewish Hospital. Dr. Krusen has been appointed head of the Department of Physical Therapy at the Mayo Clinic, Rochester, Minn., and will report for duty in August. Dr. Krusen is associate editor of the *PENNSYLVANIA MEDICAL JOURNAL*, having charge of the Department of Physical Therapy. He was elected president of the American Academy of Physical Therapy at the annual meeting held in June.

FIRST PRIZE in the annual intern case-report contest conducted by the Allegheny County Medical Society was won by Dr. John Leo Gedgoud, intern at the St. Margaret Memorial Hospital, with a paper entitled "Scorbutus in Pittsburgh, An Accident." Dr. Harry Fisher, intern at the Allegheny General Hospital, won second prize with a report on "Paraplegic Tetanus Involving Both Lower Extremities." The papers were presented at a meeting of the society, May 21, at which Dr. Francis F. Borzell, Philadelphia, gave an address entitled, "What Does the Future Hold for the Medical Graduate?" and Dr. Bertram J. Miles, "A Study of Equilibrium of the Deaf."

THE DEPARTMENT OF PUBLIC INSTRUCTION, Harrisburg, Pa., has submitted the following results of legal action by its Bureau of Law Enforcement for April, May, and June, 1935, for the illegal practice of the healing art: Theodore R. Anderson, Philadelphia, 1 to 5 years' imprisonment; G. V. Broadwater, Chambersburg, sentence suspended pending appeal; Morain Ali, McKeesport, committed to jail pending deportation proceedings; M. C. Mollier, Trappe, true bill; H. L. Weikel, Royersford, true bill; Eugene Harsch, Pittsburgh, fined \$100 and costs; M. E. Guertin, Forest County, held for court; M. E. Guertin, Venango County, held for court; Chief Running Deer, Wyoming County, held for court; Mrs. H. C. Claycomb, Bedford, dismissed.

A REPORT DENYING contentions of some scientists that mental illness is greater among Jews than among non-Jews was read to delegates to the National Conference

of Jewish Social Service and allied groups at Lake Placid, June 17, by Dr. Benjamin Malzberg of the State Department of Mental Hygiene.

He offered statistics from studies he has conducted recently to show that in certain serious types of mental illness the Gentile rate exceeded that for Jews. Among these types of insanity are those caused by alcoholism and venereal disease. He declared that the low percentage of mental illness from these causes among Jews was traceable to the tradition of family life fostered among European Jews and carried forward by many American Jews.

Coördination of Jewish community life and effort in various fields, including social service and case work, and broader social tasks involving the entire Jewish community were the principal topics at morning sessions.—*N. Y. Times*, June 18, 1935.

WORKMEN'S COMPENSATION INSURANCE IN NEW YORK STATE.—For the first time in the history of Workmen's Compensation insurance in New York State—a matter of 24 years—injured employees are now to have the opportunity of having the physician of their choice. This enables the workman to obtain his own family physician to attend him if he is hurt. The new amendments to the law, which became effective July 1, include this feature and a number of others designed to improve conditions.

Physicians who are to practice compensation medicine must be registered with their county medical societies, and approved by the State Industrial Commissioner. The qualifications of each physician are approved by these societies, and the commission may remove his name from the list authorized to practice this type of medicine if he "exceeds the limits of his qualifications." Both the physicians of the state and the insurance companies are looking forward to an improvement in the care given injured workmen as a result of the new law, and are coöperating fully in the detailed plans to make it operate smoothly from the day it goes into effect.

Dr. Frederic E. Sondern, president of the Medical Society of the State of New York, says: "We expect that most of the serious abuses which have grown up in this type of medical care in the past will be effectively eliminated by the new law, which is aimed to make the patients' well-being the first consideration."

UNITED STATES CIVIL SERVICE EXAMINATIONS

The United States Civil Service Commission has announced open competitive examinations as follows:

MATERNAL AND CHILD HEALTH SPECIALISTS

Applications for a number of specialist positions in maternal and child health work must be on file with the United States Civil Service Commission, Washington, D. C., not later than August 19, 1935.

The employment will be in the Children's Bureau, Department of Labor. Optional subjects are: Pediatrics, obstetrics, orthopedics, and general (maternal and child health). The entrance salaries range from \$2600 a year to \$5600 a year, less a deduction of 3½ per cent toward a retirement annuity.

Applicants must have been graduated from a medical school of recognized standing with the degree of M.D. and must have served one year of internship. In addition, certain experience is required.

The Commission also announces an open competitive examination for the position of Area Medical Director in the Indian Service, Department of the Interior, at \$5600 a year. Applications must be on file with the United States Civil Service Commission at Washington, D. C., not later than August 26, 1935.

Full information may be obtained from the secretary of the United States Civil Service Board of Examiners at the post office or customhouse in any city which has a post office of the first or the second class, or from the United States Civil Service Commission, Washington, D. C.

MEDICAL SCHOOLS OF PENNSYLVANIA University of Pennsylvania School of Medicine

Dr. Edmund B. Piper, professor of obstetrics, died Jan. 14, 1935; Dr. Edward A. Shuman, associate professor in obstetrics, has been advanced to professor of obstetrics to fill the vacancy. Drs. Richard A. Kern, T. Grier Miller, and Charles C. Wolferth were promoted to professors of clinical medicine and Dr. Truman G. Schnabel to associate professor of medicine. Dr. James A. Babbitt, who was connected with the school for 35 years and who for several years was acting head of the Department of Otolaryngology, has been made emeritus professor of clinical otolaryngology.

Plans are being studied for a new hospital building to house obstetric and gynecologic cases. This is made possible through the bequest of the Baroness Fontana. It is proposed to utilize the present Maternity Hospital for neurologic cases. The proposed new Obstetric-Gynecologic Hospital is to be a memorial to William H. Dulles, who lost his life on the Titanic.

At the commencement held June 19, 1935, there were 134 graduates.

The registration of the incoming first-year class has been reduced to the former limit of 120.

Jefferson Medical College

The 110th annual commencement was held on June 7, 1935. The valedictory address was delivered by Dr. Homer P. Rainey, president, Bucknell University. The subject of the address was "The Relations of General and Medical Education."

The graduating class numbered 142, bringing the total number of graduates to 16,042. The graduates originated in 20 different states. Sixty-three members were commissioned as first lieutenants in the Medical Officers' Reserve Corps of the United States Army.

The annual alumni dinner was held on June 6, with 500 alumni in attendance. Dr. John B. Lowman, Johnstown, Pa., president of the Alumni Association, presided. A portrait of Dr. Nathan L. Hatfield, a member of the first graduating class of Jefferson Medical College, and 2 diplomas, one belonging to Dr. Nathan L. Hatfield, class of 1826, and that of his son, Dr. Nathan Hatfield, class of 1865, were presented to the College by Dean Ross V. Patterson on behalf of Mr. Henry R. Hatfield, son of Dr. Nathan L. Hatfield.

Alumni Day and Ex-internes' Day clinics were held on June 6 and 7, in the clinical amphitheater of the Jefferson Hospital.

During the year the following deaths occurred: Mr. Alba B. Johnson, president of the Board of Trustees; Dr. James C. Wilson, emeritus professor of practice of medicine and clinical medicine; Dr. Howard F. Hansell, emeritus professor of ophthalmology; Dr. Harvey M. Righter, demonstrator of clinical surgery, and Dr. Thomas Cook Stellwagen, professor of genito-urinary surgery.

The graduating class of 1935 presented a portrait of the late Dr. Thomas Cook Stellwagen, professor of genito-urinary surgery, 1930-1935, to the College on April 4, 1935.

The following promotions and appointments in the

teaching corps have been made during the past session: Drs. Warren B. Davis, clinical professor of oral surgery; Edward F. Corson, associate professor of dermatology; Benjamin P. Weiss, associate professor of neurology; Clifford B. Lull, Harry Stuckert, and Thaddeus L. Montgomery, assistant professors of obstetrics; John T. Farrell, Jr., assistant professor of roentgenology, and roentgenologist to the Department of Anatomy; Henry B. Decker, assistant professor of dermatology; J. Bernard Bernstine, associate in obstetrics; Garfield G. Duncan and Abraham Cantarow, associates in medicine; C. Fred Becker, associate in nervous and mental diseases; James F. Carroll, associate in obstetrics; Baldwin L. Keyes, associate in psychopediatrics.

University of Pittsburgh School of Medicine

There was a graduating class of 65 for 1935.

Dr. Stanley S. Smith has been made professor of ophthalmology, to succeed Dr. William W. Blair, who had occupied this position for many years.

Dr. George W. Wright has been appointed professor of neurology. This position was held by Dr. Thomas M. T. McKennan, who died on Feb. 16, 1935. Dr. McKennan had been a member of the faculty of the Medical School since its organization in 1887.

The incoming freshman class has been reduced from 67 to 55, on the recommendations of the members of the Committee on Reexamination of Medical Schools.

Temple University Medical School

The degree of Doctor of Medicine was conferred upon 100 members of the senior class at Temple University at the commencement exercises, June 13. The honorary degree of Doctor of Science was conferred upon Dr. Edward Martin, emeritus professor of surgery at the University of Pennsylvania.

An alumni luncheon and business meeting were held June 13. Dr. S. Bruce Greenway, Philadelphia, was reflected president and Dr. Reuben Friedman, Philadelphia, secretary-treasurer. Dr. Charles Q. DeLuca, Philadelphia, was elected first vice-president and Dr. E. Kirby Lawson, Harrisburg, Pa., second vice-president.

Announcement was made by Dean Parkinson at the annual alumni banquet and dance, of the appointment of Dr. Charles Leonard Brown as professor and head of the Department of Medicine. Dr. Brown was formerly associate professor of medicine at the University of Michigan. Dr. John Lansbury, formerly of the Mayo Clinic and now associate to Dr. Leonard G. Rowntree at the Philadelphia Research Institute, was appointed associate professor of medicine.

Additional appointments included Dr. Louis Fletcher, assistant in anatomy, and Dr. Joseph Lomax, clinical assistant in obstetrics. Promotions were given to Drs. Gerald H. J. Pearson, from associate to assistant professor of pediatrics; Pascal F. Lucchesi, from instructor to associate in pediatrics; J. A. Bowman, from demonstrator to lecturer on pediatrics; and Bradford Green, from instructor to demonstrator in obstetrics.

On June 6, La Salle College, Philadelphia, conferred the honorary degree of Doctor of Science, and on June 11, St. Joseph's College, Philadelphia, conferred the honorary degree of Doctor of Humane Letters in recognition and appreciation of Dr. John A. Kolmer's achievements and contributions to medical science with special reference to his work on immunization against acute anterior poliomyelitis. On June 15, Dr. Kolmer was also awarded the annual Ward Burdick Memorial

gold medal of the American Society of Clinical Pathologists.

Woman's Medical College

The following new appointments to the faculty for the session of 1935-36 have been made: Dr. Esther M. Greisheimer, formerly of the faculty of the University of Minnesota School of Medicine, has been appointed professor of physiology; Dr. Ben King Harned, formerly of the faculty of the University of Tennessee School of Medicine, has been appointed professor of pharmacology; and Dr. Hartwig Kuhlenbeck has been appointed acting professor of anatomy for the coming year; Dr. Marie Andersch, assistant professor of physiological chemistry; Dr. F. Marian Williams, instructor in clinical obstetrics; Dr. Marion West, instructor in physical diagnosis and assistant instructor in clinical medicine; Dr. Ruth O. Crouse, assistant instructor in clinical obstetrics; Dr. Ralph E. Bell, assistant in clinical cardiology; Dr. Sara D. Schweinsberg, assistant in clinical ophthalmology; Dr. Virginia G. Rheuby, assistant in clinical gynecology; Dr. Pauline Coonel, assistant in clinical otolaryngology; Dr. Lewis Clarence Manges, assistant in clinical surgery; and Dr. Joseph D. Brown, assistant in clinical surgery.

The following promotions have been made for the session 1935-36: Dr. Ann Catherine Arthurs, clinical professor of otolaryngology; Dr. Jean Crump, assistant professor of pediatrics; Dr. Elizabeth Kirk-Rose, associate in pediatrics; Dr. Rachel Ash, associate in pediatrics; Dr. Jean Gowing, associate in clinical pediatrics; Dr. Constance G. Volk, instructor in clinical pediatrics; Dr. Albert A. Lucine, instructor in clinical surgery; Dr. Helen M. Angelucci, instructor in clinical gynecology; Dr. James A. Lehman, instructor in clinical surgery; Dr. Mary K. Bazemore, instructor in clinical pediatrics; Dr. Janet Anderson, instructor in clinical gynecology; Dr. Alma D. Morani, instructor in clinical surgery and operative surgery; Dr. Ruth E. Miller, instructor in bacteriology; and Dr. Ruth Stephenson, assistant instructor in clinical pediatrics.

Book Review

From a reviewer we expect information and advice which will guide us safely and to our profit, warning us of the poor, the mediocre, the commonplace, and inviting our attention to merit.

NEW AND NONOFFICIAL REMEDIES, 1935.

Containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1935. Cloth. Price, \$1.50. Pp. 510. Chicago: American Medical Association, 1935.

In this book the Council on Pharmacy and Chemistry lists and describes the medicinal preparations that it has found acceptable for general use by the medical profession. A glance at the list of the Council members and the long list of consultants appearing in the first part of the book gives ample warrant for the authority of the Council's selections.

Physicians who wish to know why a given proprietary is not described in New and Nonofficial Remedies will find the "Bibliographical Index to Proprietary and Unofficial Articles not Included in N. N. R." of much value. In this section (in the back of the book) are given references to published articles dealing with preparations that have not been accepted. These include references to the reports of the Council, to reports of the A. M. A. chemical laboratory, and to articles that have appeared in the *Journal of the A. M. A.*

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DEFORMING SCARS*†

Their Causes, Prevention, and Treatment

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Scars occur in all parts of the body, in the internal organs as well as on the exterior, but it is the external scarring that causes visible deformity which will be discussed. Any scar, no matter how small, may be considered a deformity, because it is an abnormal condition. The prevention and treatment of cicatricial deformities should be of interest not only to the plastic surgeon but also to the general surgeon and those engaged in the various specialties of surgery.

We should be mindful of the mental attitude of those persons who bear deforming scars and attempt to leave our patients with as little disfigurement as possible, for these deformities may cause mental anguish, inferiority complexes, and reduced social activities. As Shakespeare says in *Romeo and Juliet*, "He jests at scars that never felt a wound." We, who are not "gashed with honorable scars," should realize how these patients feel and do all we can to prevent their sinking into the rut of mirror-gazing, feeling unhappiness with their lot, and continually wishing their features might be normal. Especially repulsive and affecting the actions of the bearer are those dishonorable scars which stand out as reminders of past misdeeds. A patient who had been unfaithful to his wife was slashed with a razor by his secretary. The scar would probably have meant comparatively little to him had it occurred in some accident, but his attention outside his family became widely known and the scar was a symbol of his unfaithfulness. Mental imbalance and suicide eventually resulted. In contrast to this is the native of the African jun-

gle and the Heidelberg duelist, whose scars are deliberately made and whose attitude towards them is one of pride.

There are certain scars of identification which the surgeon has no business to improve if an individual is known to be evading the clutches of the law. The willful aiding and abetting of the escape of criminals in this manner cannot be condemned too strongly.

The effect deforming scars have in the gaining of a livelihood must also be considered—the girl seeking marriage, the singer and actress with their audiences, and the young business man with his contacts—all these are less able to better their position because of the effect their appearance has upon others. Scars often limit the function of the limbs and body, and hinder their bearers in the performance of work and play. They are, thus, potent factors in the curtailment of economic and social activities.

The surgeon should be interested in but not directly responsible for the making of laws to safeguard humanity from accidents—to keep inflammable toys from the nursery, to provide safety devices in factories, and to protect those traveling by land, sea, and air. It is the surgeon's duty, however, to know how to heal wounds of disease or accident so that the best possible function and appearance may be obtained. He should also know how to close operative wounds with the slightest deformity resulting.

The patient may forget the pain of an acute appendix or the size of a thyroid or parotid tumor, but he will remember the surgeon by the scar which he sees daily. If these scars, which are caused by operation, can be made less noticeable, especially if located in an exposed position, the patient will be much gratified.

* Read before the Section on Surgery of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 2, 1934.

† From the Department of Surgery, College of Physicians and Surgeons, Columbia University and the Presbyterian Hospital, New York.

Man has had scars ever since the earliest ages. We read of the first operation in the Bible, when "the Lord God caused a deep sleep to fall upon Adam and he slept, and He took one of his ribs instead thereof" to make Eve, but we read nothing of the scar which was left and we would expect that no visible deformity resulted. Our original ancestors were undoubtedly subject to many of the diseases with which we are afflicted to-day. Prehistoric man's wounds from encounters with the animals and with one another, his accidental wounds in roaming the wilds, and his diseases produced scars; but in those early ages the resulting scars, although possibly more important to him from a functional standpoint than they would be to us to-day, were not of as great importance cosmetically then as they are now, when appearance means so much to the individual.

Throughout the recorded past there are accounts of attempts to improve the appearance of scars. In the papyrus Ebers, the Ayurveda of Sushruta, and the works of Hippocrates, Celsus, Galen, Paul of Ægina, Avicenna, Guy de Chauliac, Abroise Paré, and latter-day surgeons, there are accounts of these methods. Some of the medicines used would be considered ridiculous to-day; for example, the Egyptian recipe for the ostrich egg ground down with tortoise shell. Others were quite commendable; for example, the lint and melted butter of the

•Hindus, and the emollient medicines of the Greeks, which "make the cicatrices fair." Protuberant and depressed scars were excised and allowed to heal again, and elevated scars were also reduced by the application of corrosive medicines.

Scars may be of congenital or of acquired origin. Congenital scars result from intra-uterine maldevelopment and may be very slight or quite marked (Fig. 1).

Modern investigators, performing surgery on embryos of lower animals, are beginning to shed light on the causes of congenital malformations. With an improvement in the technic of microscopic surgery by the use of vital stains of various colored dyes on the blastoderm cells, by the excision of certain cells here and the transplantation of others there in the early developing embryo, it is possible to learn something of the manner in which individual cells divide to form more complex structures. Double-headed and acephalous monsters can be produced at will and other congenital anomalies found in animals and in man are beginning to be reproduced experimentally.

In the manufacture of an automobile we expect to have, for various reasons, the production of a few imperfect parts. These parts can be discarded and replaced before the automobile leaves the factory. It is not to be wondered at, in the formation of the human body with its billions of cells, that occasional abnormalities of growth arise during the process of cell division. These imperfections cannot be noted or adjusted during intra-uterine life but persist until birth takes place; then the surgeon is called upon to rectify as best he can the deformities produced by maldevelopment in the factory of life.

After birth has occurred, numerous organisms, such as bacteria, fungi, and protozoa, attack the body and produce diseases causing destructive lesions, which eventually heal with cicatrices. Trauma, as well as disease, is a great factor in the production of acquired scars. This trauma may occur by accident or by design, as from the hands of surgeons.

Wounds from various causes and burns from heat, chemicals, electricity, or irradiation injure or destroy tissue so that deforming scars result. If to traumatic wounds there is superimposed the further destructive process of disease, the cicatrix resulting is bound to be more deforming. Surface tissue may be injured in varying degrees, both in extent and in depth. The amount of deformity depends largely upon these 2 factors and also upon the location of the lesion. A scar over that part of the body which is nor-



FIG. 1. Congenital scars forming tight rings about fingers. There was also a constricting ring on the upper arm and moderate degree of talipes.

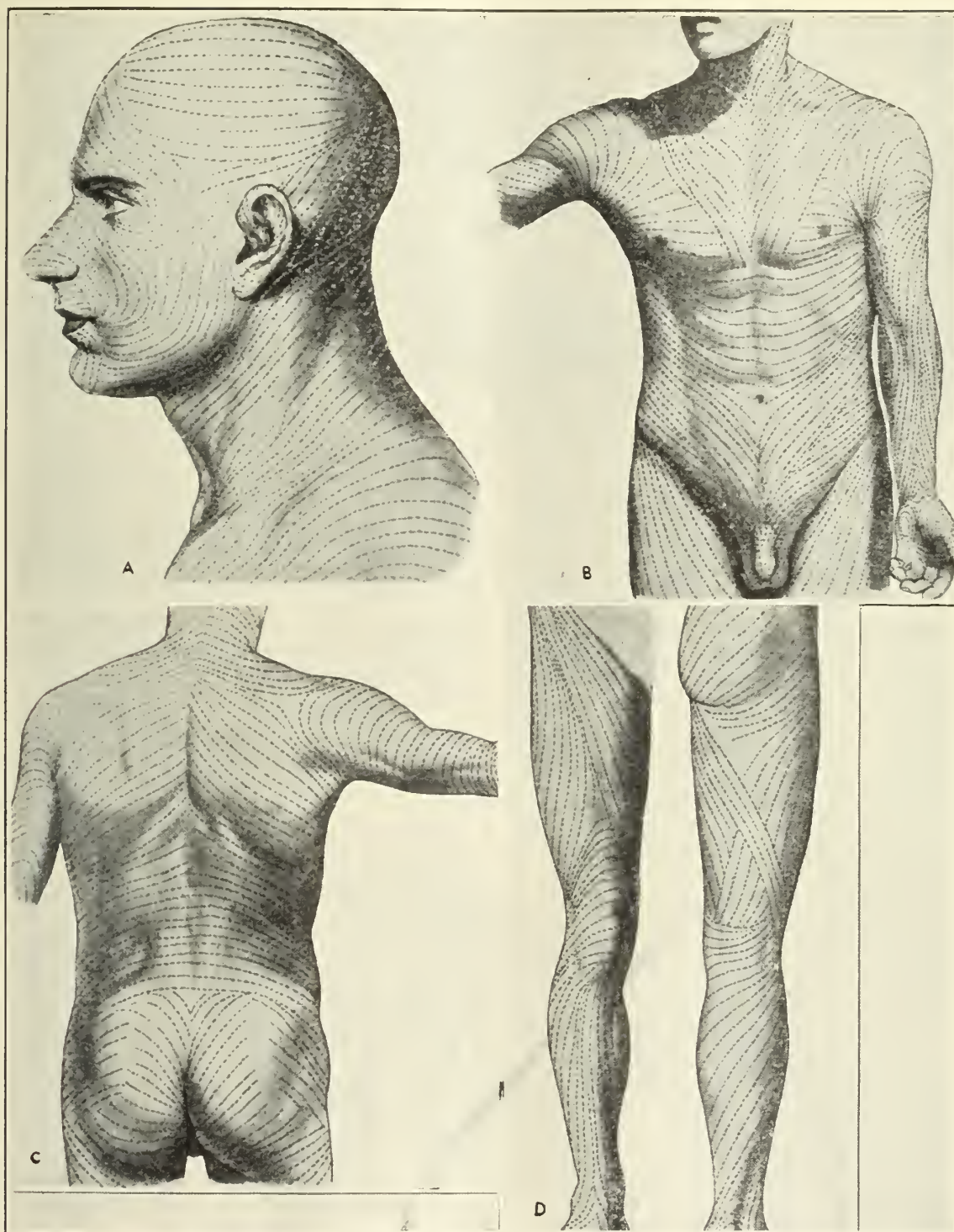


FIG. 2. The lines of Langer of normal tension of the skin (redrawn for J. S. Davis and Edward A. Kitlowski, "The Immediate Contraction of Cutaneous Grafts and Its Cause," *Archives of Surgery*, 1931, 23: 957, from Kirschner and Schubert).

mally covered by clothing is naturally less noticeable than one over the exposed parts. Some scars about the eye or lip may produce much more deformity than if, with the same area and depth, they had occurred over the forehead, on the cheek, or under the chin. The contracting

scars of the eyes and lids may produce a horrible ectropion by the rolling back of these structures because there is no preventive force of counter-traction.

The healing process of wounds caused by disease or trauma is common knowledge. If a



FIG. 4. A deformity resulting from incised wounds of face was increased by large catgut sutures used to approximate the skin edges. (A) Six days after suturing and 2 days after removal of sutures. (B) Result—weeks after accident, showing hypertrophic scars of the sutures increasing the disfigurement. Irradiation helps to reduce such disfiguring scars as these.

suprasternal incision leaves a scar which can hardly be seen in after years. What is there inherent in the skin or the underlying structures that regulates whether the scar from a linear wound will spread when closed and be disfiguring, or will remain linear and inconspicuous?

Daniel Frederik E. Eschricht of Denmark, in 1837, and Christian August Voigt of Vienna, in 1857, plotted the direction of the hairs over the human skin showing how they fell into patterns, some of which end in whorls and spirals. K. Langer, a Viennese anatomist, in 1861 examined cadavers to find the direction of the tension lines of the skin. He made holes in the skin with an awl, studied them under a magnifying glass, and found that these openings elongated in various directions depending upon the location of the hole upon the body. These individual puncture slits as a rule fell into rows indicating essentially the direction of the netlike connective tissue strands of the derma. A few sections of the skin did not split sharply; they all produced torn triangular wounds, or the puncture slits did not fall into rows but into confused groups. A plot of these skin tension lines (Fig. 2) coincided partially with those lines of the directions of the hair. Theodore Kocher, of Berne, modified Langer's lines by making incisions in the skin and seeing in which direction the least separation of skin edges occurred (Fig. 3). Even Kocher made errors of direction in his lines. He stated for one thing that any midline incision was always in the direction of choice if made in that locality. Clinically I have found this to be incorrect frequently. Occasionally in a thickened seborrhoeic skin these tension lines may be observed in the elongated pitmarks of healed acne pustules.

The simplest rule for making incisions in the most favorable direction is to follow the natural wrinkle lines. These are usually recognizable on the face, the neck, at the wrist, the axilla, the groin, or back of the knee.

Incisions for abscesses of the neck, for ligating the carotid vessels, or for performing a tracheotomy—unless perhaps the last is an emergency procedure—should follow these more or less transverse skin tension lines. Incisions made on the chest should generally follow the ribs, while on the back the nerves may serve as guides. The skin tension lines of the abdomen are roughly fan-shaped radiating inward from each flank. The oblique subcostal approach to the gallbladder, for instance, follows the direction of these tension lines. This incision not only gives good exposure, severs but few nerves, and is unlikely to be disrupted and followed by herniation, but it also leaves more generally a narrower scar than is usually obtained with the right rectus incision.

I recently saw a vertical stab wound made across the tension lines for drainage behind the axilla in a case of radical mastectomy. To the normal skin tension was added the greater tension of a tight skin closure. The lips of the stab wound had separated so that the opening was nearly as long across the wound as it was in its original direction. Drainage through this wound was desired for only a few days, but healing will consume weeks and a wide scar will result. Had the drainage wound been made in the opposite direction, there would have been rapid healing and slight deformity.

One should not make operative incisions across these skin tension lines without good reason if the least deformity is to be obtained in the

resulting scar. There are structures lying beneath the skin which must be reached at operation and which influence the choice of direction of incision; but it is frequently possible to make an incision in one direction through the skin and subcutaneous tissue, retract the wound, and approach these structures through an incision in another direction. It is in elective trauma that intelligence and knowledge on the part of the surgeon can minimize deformity.

There are other factors which tend to lessen or increase the deformity of operative or accidental wounds. One of these factors is the method of wound closure. The skin is a delicate fabric which does not stand gross handling without reaction. Small needles and fine suture



FIG. 5. Scar of palm and thumb, producing limitation of motion by contraction.

material, such as fine silk, horse hair, or dermal should be used.

I recently saw a child whose face had been slashed in 2 places. The local surgeon had very carefully closed the wounds with heavy catgut sutures to the skin and had left these sutures in to dissolve (Fig. 4). Occasionally these large suture wounds may form scarcely visible scars, but all too frequently they fill with scar tissue and produce a caterpillar-track appearance. This greatly increases the deformity of the original wound and renders more difficult and sometimes impossible a satisfactory plastic repair. It would have been far better in this case to have closed the skin edges as well as possible by strapping the wound with narrow transverse strips of sterile adhesive tape or by other conglutinating substances than to have added to the original linear scars the deformity of a double row of prominent suture marks on either side. Heavy suture material in the skin,

whether of catgut, silkworm gut, or silk, tends to leave permanent scars, especially if tied tightly and left in for a long time. To this deformity may be added the further destruction of infection following pressure necrosis.

Skin sutures should be tied with just sufficient tension to approximate the skin edges but not to cut into the skin. I recall seeing a foreign surgeon who performs many plastic operations close a simple linear wound with a continuous lockstitch suture to the skin. After each stitch the heavy suture was pulled upon with great force until the skin was completely blanched. There can be but one result from this procedure, namely, necrosis with deforming scars.

The early removal of skin sutures is also important to prevent permanent marking. Sutures buried in the deep tissues, especially in fascia planes, in the immediate subcutaneous tissue, or even in the lower derma, will reduce the tension on the skin edges so that the sutures in the skin can often be removed in 48 to 72 hours. Nonabsorbable buried sutures in clean wounds will have a more permanent effect in preventing subsequent spread of a scar than if absorbable material is used. This careful closure in layers increases the time of operation but is well worth while from the patient's standpoint. These sutures buried beneath the skin also help to prevent a rolling in of the skin edges and a subsequent depression of the scars. Moreover they tend to obliterate dead spaces which might otherwise be filled with air, blood, or serum and therefore be more liable to infection, and they also tend to prevent disruption of the wounds.

The contraction of linear scars in the soft tissues, especially over the flexor surfaces of joints, often limits motion through its bow-stringing effect if the scars lie longitudinally (Fig. 5). This contraction may often be relieved and function of the part improved by excising the scar and making a Z incision with the formation of flaps. These flaps are then raised and transposed so that the major line of incision is transverse to the original line. The original scar is thus doubled in length and relaxation is produced by an accordion-pleated effect.

Some fairly broad scars can be reduced by a partial gradual excision in 2 or more stages, which allows the surrounding parts to stretch during the period between operations.

Powder granules, particles of dirt, and other dark-colored foreign bodies imbedded in the skin show up as bluish marks. The separate foreign body granules should all be meticulously removed immediately after the accident has oc-

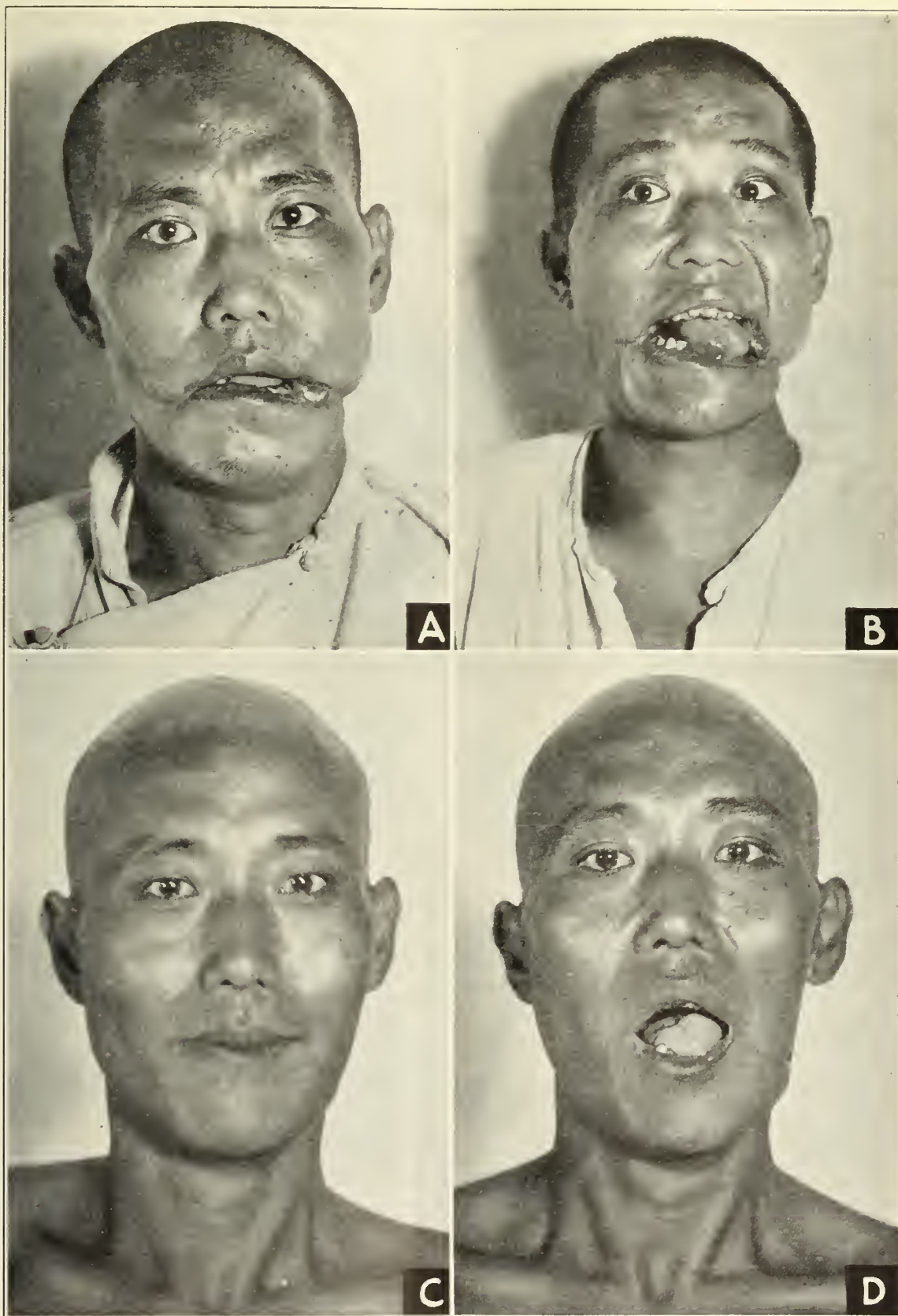


FIG. 6. Simple closure of cleaver wound of cheeks and mouth with replacement of displaced lip. (A) Before operation: note the depression of the scar and displacement of the left border of the lower lip. (B) The same with mouth open, showing the middle of the lower lip attached to the upper posterior edge of the cleft in the mouth. (C) Condition after replacement and closure, mouth closed. (D) The same with mouth open.

curred, but if they have been allowed to heal in the tissues, the scar may frequently be excised and closure then made. Should these blue scars involve only the upper layers of the skin, they may be shaved off, as in the removal of Ollier-Thiersch grafts, and marked improvement will result.

In many wounds the lacerations occur in the skin and deeper structures in such a way that it is difficult to say where the parts originally belonged. It is important in closing these wounds to replace the parts in their normal positions as nearly as possible. If healing has already taken place in malposition, later adjustments may be made (Fig. 6).

If soft parts are completely destroyed with loss of substance from disease or from trauma, replacement must be made either from adjacent tissue or from a distance. Sliding flaps or pedicle flaps can be used to advantage.

With wide destruction of skin, granulation tissue in these open wounds should be stimulated until a satisfactory bed is obtained. Excessive granulations should be reduced by corrosives, such as silver nitrate, or by excision. Free skin grafts should be applied to these granulating wounds at the earliest possible moment. This not only speeds recovery but prevents the growth of a dense layer of scar tissue, which might markedly limit the function of the part. If a thick layer of connective tissue has formed beneath these granulations, it may be necessary to excise this layer before grafting. Small deep grafts may be placed over these granulations, but the use of a thick-splint Thiersch graft will speed the healing process and give a more pleasing result.

If a flexor or extensor surface is covered by a granulating wound which must remain open for days or weeks, the part should be maintained in hyperflexion or hyperextension, as the case may be, to prevent subsequent limitation of motion. Grafts should be applied with the part in this stretched position.

The wide contractures about joints are particularly serious from a functional standpoint as they limit motion. Occasionally these contractures may be repaired by incisions and sliding flaps. Excision of the scar and replacement by sliding or pedicle flaps, or by thick-split Ollier-Thiersch or whole-thickness free grafts may be made. Frequently tendon lengthening must be done to allow the contracted muscles to permit normal extension and flexion (Fig. 7). If scar tissue is attached to tendons, motion can be improved by excising the scar tissue and inter-

posing adipose tissue either by a free graft or by a flap. If tendon shortening is present, these tendons may be lengthened by one of the usual methods. Occasionally tendons which have been destroyed must be replaced by other tendons or by fascia strips.

Scar tissue contractures may limit the growth of bone if present in the growing child. The forces of development are restrained by these nonelastic bands, and atrophy of disuse adds to the deformity. It is essential for normal growth that these contractures in growing children be released as early as possible. A poorly-developed mandible, for instance, may result from contracting scars about the neck. The relief of the contraction by incision or excision with the interposition of flap grafts improves the appearance and function, and releases the check on the forces of development. The building-up of the undeveloped part with subcutaneous fat or free grafts of fat, bone, or cartilage may give the appearance of prominence where normal prominence is lacking (Fig. 7).

In the disease known as *ainhum*, in which contracting scars about the first phalanx of the little or other toes cause progressive spontaneous amputation of the toes, surgical amputation is indicated. I have had 5 of these unusual cases in New York in 4 years.

Thickened scar tissue of many years' duration over the body or extremities may break down at frequent intervals and ulcerate. These ulcers are also subject to epitheliomatous changes, and the ulcerated areas, whether benign or malignant, should be widely excised and the area grafted. The scars resulting from overdosage of irradiation frequently become malignant and in any case require especial ability to treat. Diseases such as syphilis, tuberculosis, *kala-azar*, streptococcic and other infections may produce loss of substance of the part affected and require transplantation.

Malignant disease often requires wide excision of the affected parts, and after assured elimination of the disease replacement may be made. *Fistulae*, such as from the outside into the mouth or nose, require closure with epithelium on both sides. Double-faced pedicle skin flaps may be used to line both sides of these fistulous deformities.

Hypertrophic scars and keloids are troublesome both to the patient and to the surgeon from the standpoint of appearance and therapy. The hypertrophic scars are usually found over more or less wide areas, often resulting from slowly healing open wounds with an overgrowth

of granulation tissue, which heaps up and is eventually covered with epithelium. Linear scars, however, also hypertrophy to leave elevated ridges. These hypertrophic scars are composed of small collagen fibrils. They differ in their microscopic appearance from the true keloids which have very large collagen fibrils.

Alibert, in 1806 and in subsequent publications, claimed to be the first to describe keloids. Retz, however, in 1790 preceded him. Alibert divided the true from the false keloids and claimed that the spontaneous or idiopathic ke-

loids were true keloids, whereas the others which resulted from trauma and disease were false keloids. We now distinguish the true from the false by microscopic differences.

In the Edwin Smith papyrus of about 1500 B. C. there is described a case (No. 45) of bulging tumors on the breast, which was very probably a condition of true keloid. Keloids occasionally appear across the sternum from no apparent cause, but almost invariably there has been a small furuncle in this region which has been squeezed and which has then become a



FIG. 7. (A and B) Contracture of forearm in adult, following burn in infancy; hyperextension of hand upon forearm so that the distal end of the fifth metacarpal lies over the ulna. The contracture caused lack of development of the ulna and subluxated the radius at the radiohumeral joint.

(C) Roentgen ray of forearm and hand to show distortion from contracture. Note the atrophied distal end of the ulna.

(D) Roentgen ray of radius showing pleating after excising 4 cm. of the radius to rectify the shortening of the ulna.

(E) Pedicle flap from abdomen after excising the scar tissue to the wrist and hand, after lengthening the extensor tendons and tendon to the flexor carpi ulnaris, and after excising 4 cm. of the radius.

(F) Hand in extension after division and revision of pedicle flap.

thickened keloid spread transversely across the sternum. The scars become more and more raised and usually cause an itching sensation. Excision of these keloids is followed by a further return of the condition, usually with an increase in size. These keloids are frequently seen in the ears of negro women following the piercing of the lobes for earrings. A patient described in John Staige Davis's book on plastic surgery was in the Johns Hopkins Hospital during my service as assistant resident. This patient showed a return with marked enlargement following each excision.

Both the hypertrophic scar and the keloid respond to irradiation. It is possible in many cases of the hypertrophic scar to relieve the condition without operative interference. In the case of the keloid, however, it is usually necessary to combine surgery with irradiation. One should not attempt to excise these lesions without being assured that the patient will return faithfully for a sufficient number of irradiation treatments to insure permanent relief.

A nicety of judgment as to the type of operation is required in each case. One may employ partial gradual excision, complete excision with sutured or grafted closure, or excision of the upper layer down to the skin level and Ollier-Thiersch grafting. In every case courses of irradiation therapy should follow operation. At the Presbyterian Hospital we usually give 2 pre-operative irradiation treatments at intervals of 2 weeks and, following excision, 1 treatment every 2 weeks for a course of 4 treatments, followed by 1 month of rest. Subsequent courses may have to be prescribed. Roentgen ray is almost always used rather than radium. The dosage of each treatment amounts to one-half an erythema dose. An apertured lead shield is placed about the keloid, and a 3 mm. aluminum filter is used at a distance of 10 inches with medium voltage (125 to 135 kilovolts) for a duration of 5 minutes. This is equal to 20 milliamperes minutes. The average case requires from 10 to 12 treatments. The treatments should be started at an early date after operation, usually as soon as epithelialization has taken place. Just as it is easier to strangle a newly hatched chick than to throttle a full-grown rooster, so it is easier with irradiation to reduce the actively growing embryonic connective tissue than the inactive adult tissue.

It should be emphasized that the prevention and treatment of all cicatricial deformities should be carried out with the greatest knowledge, intel-

ligence, and judgment in order not to add insult to injury in these patients.

A child was brought to me some time ago, who had been burned about the neck and chest. She had been treated as a private patient in a hospital for more than a year until the parents' finances were completely reduced. The first procedure was to remove small deep grafts from the mother to use as isografts on the granulating surfaces. As almost invariably happens, these grafts all became necrotic. Ollier-Thiersch grafts were then removed from scattered areas over both thighs in such a way as to leave thickened scars and render these parts practically useless for further donor areas. These grafts also failed to take. Small deep grafts were then removed from the lower abdomen and pubic region, even down to the mons veneris, and were applied to the granulating surface of the neck. Many of these grafts took and now, 4 years later, coarse hairs are beginning to appear on the neck and chest. A tubed pedicle flap was then attempted over the left scapular region, which sloughed in the middle, and had to be discarded with deforming scars resulting. When the parents were financially reduced, they were advised not to have any further surgical treatment for 4 years. During these years the child has grown, the corners of the mouth are beginning to draw down, and the continual tension on the chin has affected the normal development of the mandible. All of these plastic procedures were performed by a surgeon who was lacking in sufficient experience and knowledge to handle this case intelligently. He should have refused to accept such patients until he had learned the principles of plastic surgery under supervision.

SUMMARY

Every wound, whether acquired by disease or by accidental or operative trauma, is a potential deformity of a greater or lesser degree when eventually healed by the formation of scar tissue. This deformity may have a functional as well as a cosmetic effect and may alter mental, economic, and social conditions.

It is a surgeon's duty to know how to prevent these wounds from producing more than a minimum of cicatricial deformity, to make operative incisions that will result in the least scar disfigurement, and to be able to treat intelligently those scars which have already formed.

LIGHTNING AND ELECTRIC CATARACT*

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Electric cataracts, though not common, have been reported both as the result of lightning and injury by high tension currents, the latter being more common. With the ever-increasing use of electricity and the advent of industrial medicine, in which the question of compensation is involved, the presentation of the salient factors of this type of injury is justified.

Two types of lightning cataract are recognized: The first, in which the cataract is noticed very shortly after the injury, which is regarded as due to a concussion effect, with minute tears of the lens capsule, and corresponding to the ordinary traumatic cataract; the other, the type to be presented in this article, in which the cataract does not develop for a period varying from 1 to 24 months and is characteristic of injury by high tension currents as well as lightning. The latter may be associated with iritis, iridocyclitis, retinal hemorrhage and detachment, and various ocular paralyses. Electric shock may also cause changes in other structures of the eye without lenticular changes.

The case of a female, age 21, being struck by lightning while working at a telegraph instrument was reported by Brixia in 1897 and cited in the excellent article by Franklin and Cordes, from which I have drawn freely for this report. She was unconscious for several hours and had severe burns of the nose and the left foot. Two months after the accident there were fine granular opacities in the capsule and subcapsular portion of both lenses. In addition, there were fundus changes.

The case of a boy, age 19 months, who was struck by lightning while sitting on his nurse's knee in the hall of a one-storied house under or near a hanging lamp, was reported by Coppinger. The nurse was killed immediately, the whole of her right side being burned, but the child, who was apparently sitting on her left knee, escaped, being flung on the floor unconscious. The hair over his right eyebrow and the skin of his face, especially that of the right eyelid, were slightly burned. He remained unconscious for several hours and could not open the right eye because of inflammation, which lasted for one month. Two and one-half months after the injury the lower half of the lens of the right eye had become opaque. The left eye was not affected.

On Dec. 7, 1932, E. B., female, consulted me, complaining of slight blurring of the left eye for the pre-

ceding month. The following history was given: On July 31, 1932, while walking with a companion in a large field, she was struck by lightning. The companion, who was on her right, was killed, and the patient was rendered unconscious for about 4 hours. Burns of the left upper eyelid, the right side of chest just above the breast, the left ear, and the right elbow occurred. A scar remains above the right breast, but the left ear, left upper eyelid, and right elbow do not show any evidence of the burns. The external auditory canal of the left ear presents a slight discharge. She was in good physical condition, and her health had always been good. In infancy she had eczema, gastro-enteritis, chickenpox, measles, and whooping cough, and diphtheria when age 11. Menstruation began at age 13 and has always been regular.

Examination showed a well-nourished young adult female, age 20, weight 128 pounds, height 5 feet, 4 inches. The general physical examination was negative. Blood sugar (97 mg. per 100 c.c.), blood urea (10.8 mg. per 100 c.c.), creatinine (1.8 mg. per 100 c.c.), and nonprotein nitrogen 21.6 mg. per 100 c.c.) were within normal limits. Blood Wassermann reaction (Kolmer and Kahn) negative. Blood pressure 118/80. Urine examination negative. Pupils equal and reacted to light and accommodation. External appearance negative. No evidence of burn of left upper lid. Palpebral conjunctiva slightly injected. The vision of the right eye was 6/4 and that of the left or effected eye 6/5. Media clear except ring arrangement of dot-like opacities of the posterior cortex of the left lens. Papilla of each eye well-defined though not sharp, and temporal one-half pale. Lamina visible. Jan. 19, 1933, V.O.D. 6/4, V.O.S. 6/6. Left lens presented larger white flakes of posterior cortex inside of ring of dot-like opacities. Discharge from the left ear had not been present for 2 weeks. Jan. 28, 1933, V.O.D. 6/4, V.O.S. 6/7½. Mar. 24, 1933, V.O.D. 6/4, V.O.S. 6/10. May 8, 1933, V.O.D. 6/4, V.O.S. 6/12. Feb. 12, 1934, V.O.D. 6/4, V.O.S. 6/15. Left lens presented flake-like opacities in anterior and posterior cortex. Apr. 19, 1934, V.O.D. 6/4, V.O.S. 6/15. With slit lamp, flake-like opacities could be seen throughout left lens. Right lens apparently not involved. Sept. 29, 1934, V.O.D. 6/4, V.O.S. 6/15. Slit lamp showed flake-like opacities throughout left lens. Right lens not involved.

According to Franklin and Cordes, the typical changes are fine grayish dots in the cortex with subepithelial opacities appearing more or less flakey in most instances. Hess found that as the result of an electric discharge there occurred a destruction of the capsular epithelium with the accumulation of fluid between the capsule and lens fibers. The opacity may first appear either in the anterior or posterior part of the lens, and may remain partial or may go on to complete opacification of lens. In Holloway's report of a case of electric cataract in 1929, he states that the opacities probably begin anteriorly most frequently and mentions the cases observed by Ellett, Frese, Posey, Lauder, Franklin and Cordes, and Camison, in which the opacities were anterior

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and described as subcapsular or cortical, and the cases recorded by Gowland and Lowenstein in which the opacities were in the posterior layers. Kobi refers to Koeppe's observations with the slit lamp, in which in one instance bulbous protuberance of the epithelium of the capsule was observed, and in the other instance a rosette was present in the posterior layers. The opacities were subcapsular in the cases reported by Gjessing. The opacities were in the posterior layers in my case when first observed.

In electric cataract one or both eyes may be involved. As a rule the history of an electric burn of the face is obtained. The eye nearest the burn usually shows the most marked cataractous change, but this is not always true. In the case of Franklin and Cordes both eyes were involved. The left, on the side of the injury, showed the greatest changes. They mention the case of Desbrieres and Bargy, in which the burn occurred on the right side of the face, and the right eye was the only one involved; one of Robinson's patients who had a right-sided burn with both eyes involved but the right more than the left, and a second in which the burn was on the right side of the face and only the right eye was affected; Ellett's case, in which the burn occurred on the left side of the face and only the right eye was involved. Holloway's patient was burned about the neck and both eyes were affected. In the case observed by the writer the left upper lid was burned and only the left eye became cataractous.

The time of the appearance of a cataract following an electric burn of the face varies a great deal, and therefore the prognosis following an injury of this type must be guarded. The possibility of the development of an electric cataract must be considered for at least a period of 2 years after injury. This is particularly true in industrial cases where compensation is involved. The case of Franklin and Cordes showed no evidence of cataract 7 months after the burn, but in 11 months there were lenticular changes. They also record the series of Strebel, in which the earliest evidence of lenticular changes occurred 3 weeks following the burn and the latest after a period of 2 years; the series of cases reported by Robinson, in which the time varied from 1 to 18 months; Ellett's case, which showed no changes for 3 months; and Komoto's case, which showed no changes for 6 months. Holloway's patient complained of defective vision 19 months after shock. The patient observed by the author noticed a change in the vision of the left eye 4 months after the burn.

The voltage of the electric current causing

electric cataracts may range from 220 to 50,000 volts. The case of Horton and the case of Franklin and Cordes developed a cataract after a burn of 220 volts. The latter report the cases of Ellett, Bistis, and Robinson following a burn of 500 volts; Komoto's, 11,000 volts; Davies, 11,500 volts; Desbrieres and Bargy's, 20,000 volts; Dalen's, 21,000 volts; Robinson's second patient, 26,000 volts; Stillsen's, 30,000 volts; and Gjessing's, 50,000 volts. The case reported by Holloway received 2200 volts; that recorded by Swab, 13,200 volts.

Cases have been reported with very good vision following the removal of the cataract. Both eyes were operated upon in Holloway's case and one eye in the case of Horton with very satisfactory vision resulting.

CONCLUSIONS

1. The opacities may be in the anterior or posterior portion of the lens, but are more often anterior.
2. One or both eyes may be involved.
3. Cataracts due to lightning or electric current may not appear for some time after the burn. In industrial cases of persons injured by electric shock, particularly if compensation is involved, the possibility of the development of electric cataract must be considered for a period of 2 years after the burn.
4. Electric cataract may be caused by voltage varying from 220 to 50,000.

Miners Bank Building.

ABSTRACT OF DISCUSSION

WARREN S. REESE (Philadelphia): Judging from the literature, Dr. Connole's case is quite evidently one of lightning cataract. I have seen only one case in which a similar etiology was considered but finally rejected—a boy at the Pennsylvania Hospital some years ago. He had been struck by lightning, and my attention was attracted to him particularly by a peculiar scar or marking below the left eye. This marking had an arborescent appearance such as occurs following lightning stroke. If I recall correctly, the possibility of lightning cataract was ruled out because of the length of time that elapsed after the stroke and the fact that the lens was not completely opaque.

Hess concluded from his experiments on rabbits that these cataracts result from the power possessed by electricity to kill living cells without the development of heat. This sounds very plausible for those cataracts which develop soon after the lightning stroke but not for those developing 2 years later. In Posey's first case, rupture of the lens capsule was undoubtedly the cause. Another factor which should receive consideration is concussion, especially since so many of these cases exhibit commotio retinae. Uveal trauma may also play a part; some reported cases have had an iritis.

According to DaCosta there are enormous differences in individual resistance and susceptibility to electric currents, and such differences may determine the way in

which an eye is affected by a powerful current. This is illustrated by 2 cases reported by the late Dr. Posey. In one of these a cataract began to develop immediately, whereas in the other it did not develop at all although both eyes were affected in the latter case and the primary symptoms were as severe and as typical as in the first case.

Dr. Edward A. Spitzka performed a number of necropsies on electrocuted criminals, but evidently none of these developed any lens change such as was noted in Dr. Posey's case.

In a personal communication Dr. D. B. Kirby, who has done a great deal of work on the etiology of cataract, writes as follows:

"There is no question of the incidence of cataract in those who survive the stroke by lightning or the shock of electric current of great voltage. Sufficient cases have been reported of cataract developing rapidly if the contact has been made near the eye, or coming on as late as 2 years afterwards if the shock has been general.

"The type of cataract usually has been found to be of the anterior and posterior subcapsular variety, beginning with vacuoles or globules in the epithelial layer. This is supposed to be due to death of the lens epithelium. Progress in opacity usually is rapid, and the cortex becomes water-logged, swollen, and bluish in color. Except when the eye itself is injured, the cataract is uncomplicated, and its removal may be accomplished with good prognosis for useful vision.

"In industrial accidents involving such a condition, compensation should be awarded (1) for the loss of time incident to the development of the cataracts; (2) for the loss of accommodation if operation completely restores vision; (3) for the percentage loss of vision if operation is a partial or complete failure.

"In giving the prognosis in case of survival after stroke of lightning or shock by electric current of high voltage, the possibility and even probability of later development of cataract must be borne in mind."

May I ask Dr. Connole whether he has any information as to the immediate symptoms in this case. Loss of vision, miosis, blepharospasm, photophobia, and commotio retinae seem to be the common findings.

FRANK C. PARKER (Norristown): In cases of cataracts produced by lightning or other electric currents, the thought arises whether or not the patient actually was contacted by the current or whether the electrical discharge passed by in more or less proximity but without direct contact with the individual affected. In other words, was the ensuing cataract produced by the traumatism, be it heat, shock, disruption of tissues, or sudden and violent contraction of muscular tissues induced by the actual transmission of the current through the patient's body, or were the lenticular changes brought about by the ultraviolet or infra-red rays emanating from the flash itself?

All the cases cited by Dr. Connole gave evidence of direct contact with the current, as shown by the accompanying burn. It naturally follows that direct contact with a current of sufficient voltage and amperage would cause severe damage to the delicate intra-ocular structures by the sudden and severe contracture of the lids, the extra-ocular and the ciliary muscles. There is also the possibility of damage done by the excessive heat developed within the tissues as the current passes through the head and eyes.

Considering the extreme contraction of a muscle by currents of comparatively weak strength, it is not difficult to visualize just what might take place when a

current such as a lightning flash passes through or near a person's head or body. Violent contraction of the muscles, extra- and intra-ocular, could produce intra-ocular damage very easily, to say nothing of the actual disruption of tissue by the current itself.

The far-reaching effects of these electric flashes in cases in which actual contact with the current is absent is well illustrated by a patient whom I saw about 15 years ago. Both eyes were markedly injected, the bulbar conjunctivae resembling a full-fledged conjunctivitis of several days' standing minus the secretion. Intense photophobia and profuse lachrimation were present. The accident had occurred only about 10 hours before. The patient was standing on the street when an electric car passed over a bridge on the opposite side, some 60 feet away, and the contact shoe slipped off the third rail with a blinding flash. The patient's symptoms came on a short time after. As the distance from the flash to the patient was at least 60 feet, no physical contact was possible. There were no lenticular changes in this case, and it is cited simply to show at what a distance these actinic rays will act.

The various writers reporting these electric injuries seem to state only the voltage or velocity of the current and make no mention of the amperage or quantity of the current. For instance, the high frequency currents used in our offices daily may be of voltages high up in the thousands, but the amperage is so low that no harmful effects are produced. On the other hand, a low-voltage current with a high amperage may be capable of destructive results. Consequently, it would be wise to state the amperage as well as the voltage if possible.

EDWARD B. HECKEL (Pittsburgh): I desire to add one case to those reported.

D. R. W. consulted me on Feb. 13, 1928, on account of some loss of vision. He stated that on Sept. 6, 1926, he was burned by an electric flash. The face was burned, and the eyelashes and eyebrows were carbonized. Vision began to fail about 6 months after the electric flash. Examination at that time showed: R. V.=15/200, L. V.=20/200.

The opacities were especially in the anterior segment of the lens. By May, 1928, or 3 months later, the lenses of both eyes were completely opaque.

On July 2, 1928, a simple extraction of the right lens was done. The eye made an uneventful recovery, but the vitreous seemed more or less opaque. The best vision obtainable was 20/100; w + 11.00 D. S. Atropine and dionin were ordered, and on Oct. 13, 1928, the vision of the eye operated upon was improved to 20/50; with + 11.00 D. S. $\ominus$ + 1.50 D. C. ax. 90°. On Jan. 18, 1929, the vision of the eye had risen to 20/30, and he read Jaeger No. 1. On Apr. 26, 1930, the lens of the left eye was extracted, and the eye made an uneventful recovery. On May 22, 1930, the vision was 20/70; w + 11.00 D. S. $\ominus$ + 1.50 D. C. ax. 180°. On July 3, 1930, L. V. w correcting lens = 20/70. There was some secondary cataract in the posterior capsule, which was needled on Sept. 9, 1930. In October, 1930, with correction, the vision of the left eye had improved to 20/30. The vision with both eyes was 20/20, and he read Jaeger No. 1.

This case shows the length of time after the original exposure to injury that opacities may develop.

WILLIAM ZENTMAYER (Philadelphia): These cases have some similarity to radiation cataract occurring after the use of radium or roentgen ray in the treatment of growths in and about the eye. There is the same

long interval between the exposure to the ray and the appearance of the opacity. Two of my cases in which radiation cataract developed gave a history of almost 3 years in one case and 2 years in the second case. The opacity has the same localization—the subcapsular portion. After radiation, more often the posterior layers are involved. There is no unanimity of opinion in regard to the pathogenesis of these opacities. Some believe that the changes are the result of destruction of the epithelium, and others believe that the changes are in the capillaries of the ciliary body, resulting in a disturbance of the nutrition of the lens.

DR. CONNOLLE (in closing): This patient so far as I know from the history and examination of eyegrounds did not have traumatism of the retina or photophobia.

The only history given was that the burn was very slight, not enough to send the patient to the hospital.

In answer to Dr. Parker's discussion, it would be very important to include the amperage as a part of the electric current.

Most of these cases, as Dr. Heckel stated, have been found several months after the time of the burn by electric current or by lightning.

Regarding Dr. Zentmayer's discussion, while in England about a year ago I saw just such a case. This patient had been treated for a malignant growth in the right antrum. The entire antrum had been curetted. An opening was made through the mouth, and by means of a plate radium was held in the antrum. The radiations from the antrum caused a cataract of the right eye.

THE TREATMENT OF FRACTURES OF THE PELVIS AND THEIR COMPLICATIONS*

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This discussion will be confined to factors pertaining to and having a definite relationship to the treatment of fractures of the pelvis and their complications.

A comprehensive study of 228 cases treated since 1916 has afforded ample opportunity for study of the important phases of treatment.

The increase in number occasioned by new methods of transportation and other new industrial developments no longer places this type of injury in a position considered among the rarer fractures. The latest census shows its percentage as constituting 2 per cent of all skeletal fractures.

The amazingly high mortality rate of 12 to 30 per cent should attract the attention of the entire medical profession.

Interest in the treatment of this fracture is undoubtedly increasing. This is shown by E. P. Quain in his review of the literature in 1916, wherein he reports that prior to 1890 there existed a mortality rate of 86.7 per cent, from 1890 to 1905 a mortality of 48 per cent, and from 1905 to 1916 a mortality of 38 per cent. There has been a consistent improvement, undoubtedly the result of the concentrated efforts of physicians and surgeons towards an earlier recognition of such fractures and the establishment of better surgical care. The awakening interest occasioned by the efforts and work of such institutions as the Fracture Committee of the American College of Surgeons has been quite stimulating in standardizing the treatment of this type of fracture.

In order to appreciate the importance of fractures of the pelvis, one needs only to consider

the pelvis with reference to its various functions and the essential position which it occupies in the human body.

The pelvis is composed of the innominate bones on either side with the sacrum and coccyx posteriorly. It serves the very important task of protection and support of the abdominal and pelvic viscera; it also serves as the connection between the trunk and lower limbs.

It is divided into 2 chambers, the false pelvis above the iliopectineal line and the true pelvis below.

It serves as a weight bearer between the trunk and the lower limbs in addition to supplying means for locomotion; it also affords points for the attachment of the many muscles and ligaments governing the movements of the lower limbs which, under normal conditions, maintain proper balance and equilibrium of the body.

The pelvis supports the trunk in 2 postures, standing and sitting. In the standing posture the weight is transmitted through the acetabulum and in the sitting posture through the tuberosities of the ischium.

As pointed out by Henry Morris, the bony pelvis is composed of 2 arches. The 2 main arches are the femorosacral and the ischiosacral. These arches are further strengthened and anchored by 2 subsidiary arches, which join the extremities of the main arches.

The configuration of the pelvic ring presents points of special weakness, which are situated as follows: (1) A trifle external to both sacroiliac joints; (2) at the symphysis pubis; (3) midway between the symphysis pubis and the acetabulum. These are the areas most likely to become fractured under trauma.

* Read before the Section on Surgery of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 4, 1934.

It is by virtue of experience from year to year, by knowledge obtained from the literature, and by contact with others that improvement is attained in the treatment of such major injuries as fractures of the pelvis. Only by the constant effort of the surgeon and well-organized associates can there be hope for a reduction in the permanent disabilities and mortalities in fractures of the pelvis.

A recent study and analysis of our cases since 1916 discloses some very interesting facts concerning the care and management of fractures of the pelvis. The initial step in the treatment of fractures of the pelvis takes place with the first aid rendered. The balance between death and recovery frequently depends upon the ability of the attending physician to recognize immediately a surgical problem and refer the patient to a hospital for immediate care. Delay in apparently innocent and simple cases frequently has permitted shock, ileus, and abdominal, perivesical, and urethral injuries and infections to develop so rapidly that many cases are hopeless upon admission to the hospital.

Within the past 10 years an organized effort among the local physicians of the Pittsburgh Coal Company has been made to facilitate proper first-aid attention at the place of injury. Patients are immediately fixed to an improvised cushioned rectangular body splint for transportation and are well protected by blankets. Such splints and other first-aid equipment are available every 1000 feet throughout each mine. Upon the arrival at the entry to the mine, the patient is placed in a warm first-aid room for observation. Such further temporary attention is rendered by the local physician as he may deem wise for safe transportation to the hospital. The dangerous complications which may be avoided by the institution of such methods can be readily appreciated. Upon arrival at the hospital the patient commands the immediate attention of one of our service.

A careful preliminary examination is made to ascertain the nature of the injury, the degree of shock, the blood pressure, and associated injuries.

If the fracture proves to be of a simple character and confined to the pelvis without complications, a roentgenogram is taken immediately without removing the patient from the carriage. He is thereafter placed cautiously upon a firm flat bed so as to reduce further trauma to a minimum. An extension apparatus is applied to both limbs carrying the desired amount of weight. The patient is suspended upon a hammock, cushioned with lamb's wool and controlled by weights

and pulleys, so adjusted by a spreader as to regulate lateral compression. A pelvic adhesive support is applied according to the findings of the individual case.

It has been our practice to anticipate the development of intestinal ileus. The routine orders, unless especially contraindicated, are immediately recorded as follows: The administration of cascara pills, 15 grains t. i. d., followed by an enema consisting of soapsuds, glycerin, and sodium bicarbonate, the restriction of fluids by mouth, and sedatives at night for rest. This treatment is usually sufficient for the mild forms of ileus. In the more severe cases, particularly those which persist for more than 24 hours and continuously progress, we resort immediately to turpentine stupes, surgical pituitrin, and physostigmine, followed by enemas at the appropriate time. All fluids by mouth are restricted to avoid aggravating an already disturbed gastro-intestinal tract. Dehydration and the loss of chlorides are balanced by careful intravenous and subcutaneous administration of dextrose solution and saline in quantities to meet the demand. Frequent gastric lavage or the retained duodenal tube is occasionally resorted to and at times serves a valuable purpose. It has been necessary in certain cases to resort to intraspinal and paravertebral injections of novocaine.

The establishment of such prophylactic therapy for presupposed ileus has reduced this complication within recent years to a minimum, and as a result there have been no fatalities from this complication since 1926. The application of body casts as described by some workers has been entirely discarded, particularly in acute cases, because it is a decidedly disturbing factor in the control of ileus.

The complications of fractures of the pelvis as well as the concomitant injuries are usually severe. They play an important rôle in the high mortality rate and constitute emergency surgical problems, demanding the immediate attention of an experienced surgeon. Delay and inexperience are followed by tragic results.

The most frequent and important complications which merit a brief discussion are as follows: Shock, ileus, hemorrhage, rupture of the rectum, and urogenital injuries.

Shock is one of the primary and major complications in all fractures of the pelvis. This factor comprises the highest figures in the actual cause of death in this series—38 per cent. Shock in simple uncomplicated pelvic fractures does exist, but it is usually mild and easy to control. When it is present in a severe form, it is usually associated with severe complications or concomi-

tant injuries such as crushes of the thigh, vertebrae, chest, etc. We are ever mindful of this condition and attempt to establish the degree of shock upon first observation. The patient is handled with the utmost care and is immediately placed in bed with intensive treatment for shock. Upon recovery from the shock, the patient is given further surgical care without delay.

Ileus, which was discussed above, was noted in various degrees in the majority of cases. Certain patients presented a delayed form of ileus, which appeared 2 to 4 days after injury. This type may become extremely severe and very embarrassing to the patient. Occasionally, a recurrent form appears, demanding return to the primary treatment.

A wide review of the literature shows but little reference to ileus as an important complication and practically no mention is made of its mechanism of development as the result of trauma. Irritation of the autonomic nervous mechanism is a major factor in the induction of ileus. In this series 28 per cent of the deaths were the result of ileus. Since 1926 improved first-aid methods, better coöperation by the mine physician, and the presumption of possible development have prevented any deaths as the result of ileus.

Injuries to the urogenital tract constitute the chief surgical complication. In such cases success or failure depends upon the time of recognition. If extravasation of blood and urine in the traumatized pelvic tissues continues for more than 6 or 8 hours without detection, a chemical cellulitis develops with a subsequent bacterial invasion and extreme toxemia. Peritonitis develops rapidly in delayed conditions of intraperitoneal rupture of the bladder. These complications can be avoided by early recognition of the condition and the proper institution of surgical measures if the problem of shock does not prevent it.

The appearance of blood at the urethral orifice is sufficient warning of mucosal damage. Investigation by catheter is performed under strict asepsis and with caution to avoid further trauma. If simple laceration exists with little or no periurethral or perineal extravasation, an indwelling catheter is usually sufficient.

If obstruction is encountered, a retrograde catheterization with suprapubic cystostomy is the method of choice for repair of the ruptured urethra. The suprapubic incision into the bladder is made high so as to avoid a permanent urinary fistula. The urethral catheter, which extends throughout the entire channel from penis to suprapubic opening, is not fenestrated for

drainage of urine but serves as a scaffold for the restoration of the urethra. Complete through and through drainage of the space of Retzius is thoroughly established to avoid infection of pelvic tissues. The bladder is drained independently by a Petzer catheter so as to relieve urethral tenesmus and avoid soiling of the surrounding surface of the suprapubic wound. The drainage in the space of Retzius is retained from 8 to 14 days. The urethral catheter may be safely removed in 2 or 3 weeks if a silk guide suture is left throughout the urethral passage for the subsequent introduction of sounds. Following the reestablishment of urethral function, the suprapubic opening heals rapidly. The periodic passage of sounds to avoid stricture is highly essential at a later date. It is impossible to overemphasize the importance of aseptic technic in this procedure to guard against the development of infection.

The first laparotomy for the repair of a rupture of the bladder was performed a short distance from the site of the present Mercy Hospital, Pittsburgh, Pa., by Dr. Albert G. Walter on Jan. 12, 1859. The report of this case is published in the *Medical and Surgical Reporter* of Philadelphia, Nov. 16, 1861. Dr. Robert W. Stewart, formerly professor of surgery, University of Pittsburgh, did much to popularize and improve the technic of the retrograde catheterization method.

Extraperitoneal rupture of the bladder is approached and repaired by suprapubic cystostomy with adequate drainage. The removal or replacement of protruding sharp spicules within the bladder is often necessary and should be done cautiously before the ruptured area is closed.

Intraperitoneal rupture of the bladder requires, as a matter of safety, a preliminary laparotomy for removal of the free urine. The surgical repair of the lacerated bladder may be accomplished either by intraperitoneal approach or during the routine suprapubic cystostomy for drainage.

These cases require careful postoperative care in order that local as well as ascending kidney infection be avoided. The individual should return monthly during the following year in order that patency of the urethra may be maintained and the development of stricture prevented.

The development of vesical calculi following these injuries is occasionally disturbing and should receive early attention. However, this condition frequently can be avoided by careful attention to the bladder during the postoperative period. The bladder seldom requires attention unless gross infection has occurred.

Injury to the rectum should not be overlooked. A routine examination will show the presence or absence of sharp fragments, which occasionally protrude through the rectal wall. Gentle finger pressure is often sufficient to reduce the fragment a safe distance.

Severe hemorrhage of the iliac vessels is rare but does occur. Excessive extravasation of blood about the iliac vessels may play a rôle in the development of edema of the lower limbs, which was observed in a few cases.

Pertaining to the convalescent care of the pelvis and the adjoining soft structures, it is essential to immobilize the pelvis with properly applied extensions. The limbs are maintained in a posture of approximately 15° abduction in order to avoid contracture of the adductor muscles. With certain modifications the hammock suspension, as originally introduced by H. E. Conwell, has proved ideal for comfort, sanitation, protection, and ease of manipulation of the patient.

All patients, except those with very minor fractures such as simple fractures of the ilium, are confined to bed at total rest for a period of 8 or 10 weeks. Following this the patient is confined to a wheel chair for a period of 2 weeks before the body weight is superimposed upon the pelvis in the erect position.

Physical therapy including infra-red rays, massage, interrupted galvanism, and diathermy is instituted the first or second week following admission. This is continued throughout the confinement of the patient to the hospital.

Complete roentgen-ray studies are essential to determine the progress of reduction, the development of unusual deformities, and the condition of the pelvic structure upon the discharge of the patient.

There are certain other sequelae of fractures of the pelvis which deserve consideration.

Malunion of the fractured bones of the pelvis with deformation and deficiencies of locomotion and support do occur rather infrequently. At times sufficient firm fibrous union occurs with total absence of one side of the pubic bone, yet the counter arch is so firmly united by fibrous union as to permit the patient to engage in the work of a miner with fair earning capacity.

In one patient marked separation of the symphysis with total loss of lifting power persisted. The counter or subsidiary arch was effectively tied by a subsequent bone graft, which still remains viable after 2 years. Complete restoration of strength and function was afforded to the pelvic structure.

Urethritis, cystitis, prostatitis, seminal vesiculitis, pyelitis, pyelonephritis, and pyonephrosis,

which result from ascending infection and which frequently prove serious, can often be avoided by early operation and adequate drainage. The treatment of these cases, however, demands the attention of one well trained in genito-urinary problems.

In our experience persistent urinary fistula has never occurred in any cases of urogenital complications repaired by the retrograde catheterization method. The bladder incision should always be made high in the fundus of the bladder in order to avoid urinary fistula.

Adductor disabilities can be greatly reduced by maintaining the lower limbs in a position of abduction during confinement to bed, assisted by physical therapy.

Foot drop, which occurred in 2 cases of this series, may assume the proportions of a permanent disability. Fixation of the foot in dorsal flexion with a removable splint, accompanied by infra-red treatment and massage during confinement to bed, the subsequent wearing of a specially devised shoe traction apparatus, and continued physical therapy when the patient is ambulatory, has resulted in very favorable results.

Lumbar myalgia at times is persistent and difficult to obviate, yet the number of these cases has been consistently reduced following the practice of total confinement to bed for 8 weeks or longer.

Impotency represents a sequela which should not be overlooked. It is infrequent in our experience, occurring chiefly in those cases associated with ruptured urethra and periurethral damage. Delayed function occurred in 2 cases. Abbott in his discussion on ruptured urethra is one of the few who attempts an explanation. He attributes the condition to a tearing of the greater and lesser cavernous nerves which supply the corpora cavernosa.

Fractures of the superior margin of the acetabulum with associated dislocation of the head of the femur are quite rare but very disabling if not corrected. In 3 of this series an associated dislocation of the femoral head occurred in addition to displacement of the acetabular fragment. One was reduced by a lateral exposure, the other 2 by the Smith-Peterson approach, which simplified the operative technic considerably. In all 3 cases there was a full return of function of the hip joint.

A review of our mortality list keeps us ever mindful of the interest and desire for future improvement in the care and management of these cases. Certain of the deaths were associated with severe concomitant injuries which, in themselves, were the actual cause of death.

A summary of the cases follows:

Total number of cases treated since 1916	228
Average days of disability	148.2
Total number of deaths	28
Percentage of deaths	12.2%

The causes of death were as follows:

Shock	11 or 38.5%
Ileus	8 or 28 %
Pelvic cellulitis including one gas bacillus infection	3 or 10.5%
Ascending urinary infection	3 or 10.5%
Cardiac failure	2 or 7 %
Meningitis	1 or 3.5%

COMMENT

1. Fractures of the pelvis are major surgical problems and should be hospitalized.

2. The treatment has its origin with the first aid established.

3. Sufficient period of immobilization at total rest with early physical therapy will prevent or reduce permanent disabilities.

4. Complications should be regarded as emergencies.

5. Early recognition by the physician and surgeon is most essential.

6. A well-experienced surgeon should assume personal care of all complications.

Mercy Hospital.

ABSTRACT OF DISCUSSION

ARTHUR G. DAVIS (Erie): In discussing these cases of fractures of the pelvis, we must realize that they are from the heavy industries and are therefore much more severely traumatized. Allowance must be made for the factor of mutilation characteristic of the cases from the

heavy industries as compared to the very simple fractures resulting from automobile accidents.

The authors refer to the decreasing mortality incident to a better understanding of treatment. A mortality of 12 per cent is indeed impressive.

Ordinary fractured pelvis as represented by uncomplicated fractures of the rami, sacrum, and ilium are probably among the simplest types of fracture to treat. Recumbency in a suspension sling such as the authors describe, or a suspension such as Dr. H. E. Conwell of Birmingham, Ala., suggested for a period of 5 to 6 weeks, seems entirely adequate. Cases of bladder, urethral, and rectal ruptures complicating pelvic fractures present an entirely different problem. Bladder rupture means extravasated urine. Although it is difficult to understand why extravasated urine causes severe reactions, experience teaches that such patients are usually badly shocked and develop infection in the infiltrated areas. When this complication exists competent urologic surgery is usually immediately indicated. Every fractured pelvis should be considered as a potential surgical emergency because of the possibility of a ruptured viscus and an attempt made to locate the point of rupture. A dribble of blood from the urethra is fairly pathognomonic of urethral rupture; free bloody urine in considerable amount points to the kidney; signs of peritonitis indicate intraperitoneal extravasation; shock, extreme pain, and a mass in the pubic region with a clear urethra indicate the usual extraperitoneal rupture. With the signs pointing to any of these, a surgical emergency is at hand.

Fractures into the sacro-iliac joint and spondylolisthesis represent 2 complications which indicate special treatment. A fractured sacro-iliac joint frequently fuses itself, but if there is a persistence of sacrosciatic symptoms after conservative measures have failed fusion of the sacro-iliac joint is indicated.

Spondylolisthesis should be mentioned because there are more cases of it as the result of severe accidents involving the spine and pelvis. Hence, there are increasing reasons for lumbosacral fusion in cases in which the fifth lumbar vertebra is shown to be definitely forward in relation to the sacrum.

THE TREATMENT OF PHARYNGEAL DIVERTICULA BY THE COMBINED ONE-STAGE CLOSED METHOD*

THOMAS A. SHALLOW, M.D., PHILADELPHIA

The old classification of pulsion esophageal diverticula has received so much criticism within recent years that now it has no place in the nomenclature of surgery or medicine.

Esophageal diverticula do exist in the thoracic portion of the esophagus. They are never pulsion in origin but are always the result of a periesophageal inflammatory condition which draws the esophagus into a pouch and produces a traction diverticulum. It has not been generally accepted that traction diverticula of the esophagus hold any place in the surgical treatment of the disorder.

The esophagoscopist, the anatomist, and the operative surgeon have definitely proved that pouches arising in the neck are pharyngeal in origin. Although some of these pouches are of the traction variety, the majority are produced by an increase in intrapharyngeal pressure. It has been definitely decided that the pulsion diverticula are pharyngeal in origin, but the exact location of this origin is still a question of dispute. It is the purpose of this presentation to show the various sites of origin of these pouches (Fig. 1). It has been our experience that pharyngeal pouches seldom, if ever, originate in Laimer's triangular area.

* Read before the Section on Surgery of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 3, 1934.

ETIOLOGY AND SITE OF ORIGIN

Pharyngeal pouches arise as a result of intra-pharyngeal pressure, possibly due to some disturbance of the neuromuscular mechanism of deglutition in individuals who eat rapidly and bolt their food. Age is undoubtedly a factor in this neuromuscular disturbance, since most of these diverticula occur at a late period in life.

Most authorities agree on Laimer's triangular area as the site of origin of these pouches. Some have even gone so far as to show how to repair a defect in this area. Lord Moynihan states that the pouches do not arise in this area. Our observations and conclusions are in accord with Lord Moynihan's views—that no pharyngeal pouch arises in Laimer's triangular area. It is our belief that most herniations occur where a branch of the inferior thyroid artery penetrates the musculature of the pharynx above the cricopharyngeus (Fig. 1), in order to supply nutrition to that structure. However, an occasional pouch arises where a branch of a recurrent nerve penetrates the pharynx. This is below the cricopharyngeal muscle. Jamison and Moynihan described this area in the *Lancet*, May 21, 1927, and stated it was a possible site of origin for pharyngeal diverticula.

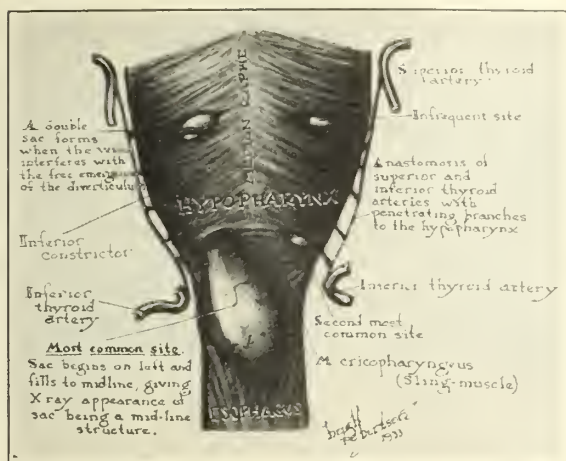


FIG. 1. External manifestations of the various locations of pouch.

The combined one-stage operative procedure had its inception with W. Joseph Hearn, who performed the first deliberately planned excision of the sac of a diverticulum in the United States. Hearn performed this operation at the Jefferson Medical College Hospital, July 1, 1896, using an acorn-tipped bougie for the purpose of identifying the sac. The sac was separated and cut off from the pharynx, and the defect in the pharynx closed in layers, the innermost suture being catgut and the remaining sutures fine silk. This case healed by primary union, and the patient was discharged from the hospital in 13 days. This was the first case of its kind in this country to heal by first intention. It was the first one-stage open operation performed in the United States with the aid of a guide.

The procedure was modified in 1915, when Gaub and Jackson substituted the esophagoscope for the acorn-tipped bougie. The technic followed by these authors was in no way different from that utilized by Hearn except that it added the safeguard of the esophagoscope to the operation. This is a distinct advantage. After the sac is amputated, the esophagoscope is passed into the esophagus below the origin of the diverticulum, thus preventing the operator from narrowing the pharynx and producing an atresia. Gaub and Jackson performed 2 operations upon which they based their article. The large diverticulum was repaired in the same manner as that utilized by Hearn.

The earlier plan of treating the neck of the sac by opening it and then closing it with sutures carried with it a certain amount of risk of mediastinitis. Now the neck of the sac is never opened, and mediastinitis is not a complication of the operation.



FIG. 2. Right-sided diverticulum, indicating that all diverticula do not spring from the left side as is commonly indicated by most authorities.



FIG. 3. A large diverticulum measuring 7x5½ cms.

SYMPTOMS

1. Dysphagia is the most common symptom of diverticula of the pharynx. The dysphagia varies from absolute inability to swallow liquids or solids to a relatively slight degree of inconvenience in swallowing. In the beginning, when the pouch is small, the individual is able to swallow after the pouch is filled; but, as the pouch increases in size, it frequently assumes a position between the esophagus and the vertebral column, so that, when the pouch is filled, it presses on the lumen of the esophagus to such a degree as to render swallowing utterly impossible.

2. Regurgitation of food from the sac is a frequent and annoying symptom. This varies from immediate regurgitation, as soon as the sac is partially filled, to regurgitation a number of hours after eating. Stagnated food, regurgitated at night, may be aspirated and often produces chronic bronchitis. In fact, one of the first symptoms complained of by the patient is regurgitation of undigested food mixed with saliva.

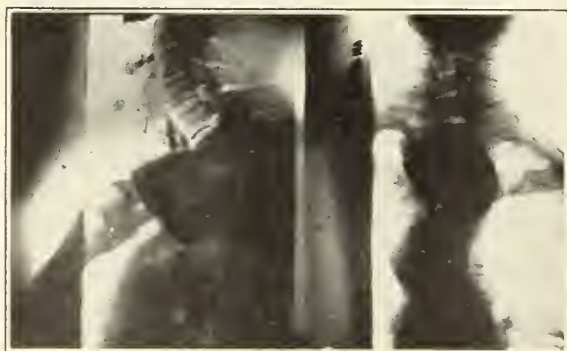


FIG. 4. Diverticulum removed from patient, age 75. Patient made an uneventful recovery and was discharged, cured, from the hospital 21 days after operation.

3. Many patients complain of noisy deglutition. This symptom is commonly so annoying as to cause the patient to eat alone. A number of patients of the writer never ate in the presence of others or in public. One patient waited to eat until the rest of the family had dined.

4. Hoarseness is not an uncommon symptom. Nine patients in this series complained chiefly of hoarseness.

5. A tumor in the neck may be palpated occasionally. This sign was present in 5 patients of this series. Invariably a gurgling sensation could be detected beneath the fingers when the patient swallowed.

DIAGNOSIS

The diagnosis is made from the symptoms and roentgen-ray findings (Figs. 3, 4, 5, 6, and 7), and confirmed by esophagoscopy examination.

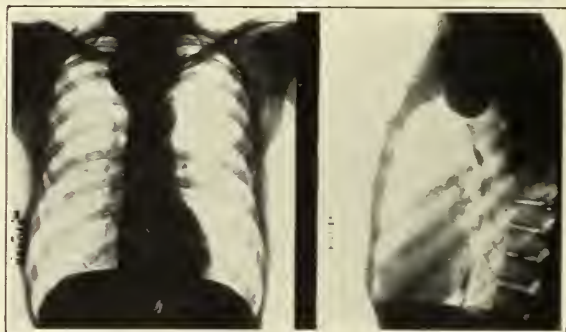


FIG. 5. Showing the sac extending into the mediastinum.

PROGNOSIS

The question of mortality in diverticulum of the pharynx has undergone a revision in recent years. Now diverticula of the pharynx are recognized early. The sac does not reach the dimensions that were observed in our early series of cases; consequently, now, the patient's physical condition when operation takes place is much better than formerly. It was not unusual in our early cases to resort to gastrostomy preceding the operation for diverticulum. In a series of 76 cases, there have been no operative deaths. Two patients died—one of lung complications and one of uremia. One patient complained of hoarseness for 3 weeks following the operation. In this case, the sac arose below the cricopharyngeal muscle where a branch of the recurrent nerve penetrated the pharynx—the Jamison-Moynihan area. Mediastinitis did not complicate any of these cases. Most of the incisions healed by primary union, the patients leaving the hospital within 21 days. Four cases



FIG. 6. Showing a large open mouth leading from the pouch into the pharynx.

had wound infection which did not complicate their recovery.

OPERATIVE TREATMENT

The incision is made on the side of origin of the pouch, usually the left side, since most diverticula originate on that side. It is important, therefore, that a thorough esophagoscopic examination be done preceding the operation in order to determine definitely the side of origin of the pouch. (Fig. 2 shows a right-sided diverticulum.) The incision is made parallel to the anterior border of the sternomastoid muscle, the omohyoid muscle divided or retracted, the carotid vessels retracted outward, and the thyroid gland exposed and retracted medially. When the fascia between the trachea and the esophagus is divided, the lower pharynx and the upper esophagus can be seen in the base of the incision. The esophagoscopist introduces the esophagoscope into the sac and transilluminates it. The sac is picked up close to its neck, an incision is made in the outer covering of the sac, and the remainder of the sac is delivered through this opening into the incision. The neck of the sac is carefully separated, reflecting backward the oblique fibers of the inferior constrictor muscles above and the cricopharyngeal below. Dissection is carried down to the submucous layer of the pharyngeal pouch.

The base of the sac is transfixed and the sac amputated. The stump is sterilized with carbolic acid and buried by means of Lembert's sutures. The cricopharyngeal muscle is sutured to the inferior constrictor muscle, care being exercised that the outer portion of the suture does not include a branch of the recurrent laryngeal nerve. The incision is closed. A small drain is placed in the lower portion of the wound below the deep fascia. No. 1 chromic catgut is used throughout the procedure.

The esophagoscopist introduces a feeding tube through the nose into the stomach which remains in situ for 18 days. The sutures are removed at the end of 10 days, and at this time the drain is removed. The patient is discharged at the end of the twenty-first day with instructions to eat slowly, masticate the food thoroughly, and live on semisolid food for at least 3 months.

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ABSTRACT OF DISCUSSION

LOUIS H. CLERF (Philadelphia): Apart from the value of the esophagoscope in diagnosis, it has a very definite place in aiding the surgeon if he is contemplating extirpation of the sac.

The importance of esophagoscopy in diagnosis should be emphasized. Patients with carcinoma of the esophagus, with a diverticulum complicated by carcinoma, or with a cicatricial stenosis of the esophagus have been referred for extirpation of a diverticulum. The diagnosis in these cases was based on roentgen-ray study alone. One of the functions of esophagoscopy is cleansing of the pouch. Prior to extirpation it is necessary to have the pouch cleansed and free from secretion, food, or barium left from a previous roentgen-ray study. Although it would seem difficult to sterilize the upper food passages, nevertheless with the aid of mercurochrome a fair degree of surgical cleanliness can be produced. This has been an aid in securing primary union.

Secondly, it is useful as a guide. As Dr. Shallow emphasized, W. Joseph Hearn pointed the way in 1896. This method has been improved upon by using the esophagoscope, which permits of transillumination. The neck of the pouch can be brought out so that the



FIG. 7. Indicating the beginning of a double diverticulum.

surgeon can orient himself and grasp that particular portion. Then he has no difficulty in securing the remainder of the diverticulum.

Were it not for the fact that 2 patients were sent to us for reestablishment of the esophagus after attempted extirpation elsewhere of a diverticulum, I would not be so positive about the importance of the esophagoscope in the repair of the esophagus. It was the intention of the surgeons in these cases to extirpate the diverticulum. Following the operations it was necessary to do gastrostomy. There was a total lack of normal physiologic

function in both cases. In one the sac had been extirpated together with 3 cm. of esophagus. In the other, the sac had not been removed, but the esophagus had been ligated and angulated. If the esophagoscope had been used, this could not have happened. The surgeons who do a 2-stage operation find it necessary to resort to postoperative bougienage, indicating that the lumen of the esophagus has probably been abnormally narrowed. In order to have normal anatomic relations and to reestablish normal physiologic function, it is very necessary to carry out that procedure.

BLOOD PICTURES IN INFECTIONS*

From the Standpoint of the General Practitioner

MAX M. STRUMIA, M.D., BRYN MAWR, PA.

No other laboratory determination is of such general importance in infectious diseases and toxemias as the study of the behavior of the circulating leukocytes. Although counting and classification of the cells have been done for a long time, it is only in relatively recent years that a better understanding of the value of the morphologic study of leukocytes has been reached. The first important step towards this newer view was a more correct classification of the various forms, especially the proper recognition of monocytic cells, and later the differentiation among the polymorphonuclear cells of the not perfectly mature or young cells.

This study, to which a large number of people have contributed, will recall to you the early studies of Arneth and later those of Schilling. The theory underlying the study of the nuclear variations of the neutrophils is very simple. In ordinary conditions the neutrophils enter the circulation either perfectly mature or nearly so, the percentage of young neutrophils present being between 1 and 3 per cent. This means a ratio between young and mature neutrophils in circulation of 1 to 15. This ratio remains constant in all ordinary conditions, but if an excessive demand upon the bone marrow is made, neutrophils will be poured into circulation before they are perfectly mature, thus increasing the percentage of these forms in the blood and making the ratio instead of 1 to 15, 1 to 10, 1 to 4, and sometimes even higher. These variations in the ratio are present regardless of the total number of leukocytes, which makes them of more universal application than the numeric count of leukocytes. In fact, whenever there is a large number of young cells and yet a total

low count there must either be very active destruction of the cells or an arrest of maturation, both indicating a severe toxemia. The application of the theory of the nuclear shift to the practice has proven of tremendous usefulness (Fig. 1). It allows us to differentiate the so-called physiologic leukocytosis from the true infectious or toxic leukocytosis, to estimate accurately the extension of the infectious process, to follow its course, and to forecast days ahead possible variations either for good or bad.

The tendency, however, has been to overemphasize its value and especially to use it for a purpose for which it is not intended. Thus, the nuclear shift has been used more and more for prognostic purposes in a variety of diseases. Although, in certain diseases which are very uniform in course such as pneumonia, considerable prognostic information is to be derived from the nuclear shift, generally speaking even accurate determinations of the nuclear shift are not altogether reliable for the prognosis. In other conditions, to avoid disappointment, the nuclear shift should be used more for diagnostic than prognostic purposes. This does not mean, however, that the morphologic blood study cannot offer a very accurate means of prognosis. This end, however, is better accomplished by a study of the state of preservation of the cells in general and especially of the neutrophils. In all toxemias and infections, the first thing that occurs is a destruction of a certain number of leukocytes with a short period of leukopenia. In certain diseases this leukopenia may continue much longer, but in the majority of infections the products of disintegration of the leukocytes, the toxins themselves, or both, will produce a continued stimulation of the bone marrow, which will determine a pouring into the circulation of

* Read before the Section on Medicine of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 2, 1934.

a large number of ready stored cells and an active production and/or maturation of new ones. This is revealed in the microscopic study of the circulating blood by an increase in the number of the young granulocytic forms. At the same time there will be a number of forms revealing the effect of the toxic agent.

They are of the greatest possible practical importance. They are very easily determined, and with a little practice estimation of their value is easy. The essentials for this determination are a very good smear and a very good stain. We have lately adopted a new modification of the Romanowsky stain which combines the properties of the May-Grünwald and the Giemsa stains in one solution and allows easy, rapid, constant staining of the smear with excellent differentiation of nuclei and granules. A hyperregenerative nuclear shift in an infection along with a rise in the total number of leukocytes must not be looked upon as an unfavorable sign, as is too commonly the case. A good increase of the young forms in early diseases only means that the organism is adequately responding to an emergency by calling forth all the reserves. So long as this process continues the balance between demand and supply is maintained and the infection successfully fought. These young cells must not be looked upon as inefficient fighters. Young cells are usually differentiated into 3 subgroups: The rod-nuclear, the metamyelocyte, and the myelocyte. The myelocytes are relatively rare, the metamyelocytes less so, but the most common are the rod-nuclear cells. They perform in vitro with respect to locomotion, phagocytosis, and proteolytic properties as well as the more highly segmented polymorphonuclear cells. For that reason they should be called young rather than immature. Their presence indicates that a reaction is taking place, but not the success of this reaction. The prognostic element is provided by the state of preservation of the cells.

The order of changes in the cells as they were observed in a case of very severe pneumonia at the height of the disease is as follows: First, there is hyperchromia of the neutrophilic granules. These appear larger, heavier, and polychromatic, having a tendency to stain a little more blue than ordinary. This differentiation of the granular changes is not usually possible with the ordinary Wright's stain, which has a tendency to over stain the neutrophilic granules or not stain them at all. With better stains, however, these granules are stained uniformly and delicately, differences in size, number, and staining properties being very easily detected. This change in the cell is very likely reversible

and probably represents only a stage of over-activity on the part of the cell rather than a true degenerative change. It is possible, therefore, for a cell of this type to perform the same function, perhaps even more aptly than an ordinary cell. The next thing noticed in a neutrophil undergoing degenerative changes is the swelling of the cytoplasm, the borders of the cell becoming somewhat less sharp, the granules being dispersed, and their staining quality slowly disappearing. Shortly after this the appearance of bald patches in the cytoplasm of these cells will be noticed; finally, large vacuoli will appear, indicating profound changes in the equilibrium of colloids in the cytoplasm. The third and final stage of this progressive degeneration (the

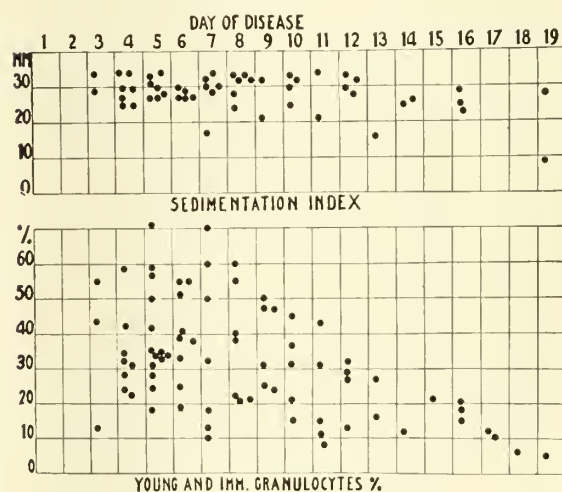


FIG. 1. A composite chart representing the course of 20 cases of lobar pneumonia followed with the nuclear shift.

one which must be considered as not reversible and representing, in fact, the death of the cell) is the nuclear changes. These consist of swelling of the nucleus with progressive loss of its structure. Whereas nuclear changes are always preceded by changes in the cytoplasm, milder forms of cytoplasmic and granular changes are not necessarily accompanied by changes in the nucleus. In this study an attempt was made to classify the changes of the granules of the cytoplasm and of the nucleus separately, whereas in practice the study can be limited to the severe changes of the cytoplasm with or without nuclear changes. The complete destruction of the cell may appear as a shadowy network faintly stained with the nuclear dyes. In the evaluation of these findings it must be remembered that not a single determination must be taken into consideration—rather the variation in successive determinations. Some patients with lobar pneumonia come into the hospital on the second or third day with a high hyperregenerative nuclear

shift and a large number of degenerated cells, and after a day or two the number of degenerated cells greatly diminish and the nuclear shift improves. These patients almost invariably recover. If in the course of an infection, however, regardless of the number of these degenerated cells in the beginning, their number steadily and severely increases, then the outlook is poor.

It is difficult, therefore, to give absolute figures but there should be not more than 1 per cent of these cells in normal blood. In a slight infection 5 to 10 per cent is a fair number; 20 to 25 per cent represents a severe infection. Above 30 per cent the prognosis should always be guarded. As a rule, above 50 per cent the prognosis is poor. One determination, however, cannot possibly assure a correct prognosis.

Another important consideration in the study of the blood is not to rely on a single type of change. In the classic instance of pneumonia, take into consideration the total number of cells, the total number of neutrophils, and the percentage of young and degenerated cells, but above all the number of monocytes and eosinophils. At each stage of the disease these cells play a different rôle. For instance, if there is a monocytosis early in the disease persisting in later days the prognosis is favorable. A monocytosis occurring on the fourth, fifth, or sixth day accompanied by a diminution in number of degenerated cells points to an impending crisis. This is usually accompanied by reappearance of eosinophils; these are always of good omen and followed by an increase in the lymphocytes, which are the forerunners of convalescence.

Another important consideration is the balance between production and destruction of leukocytes. Often these will give a correct indication as to when a certain suppurative lesion is beginning to taper off, therefore indicating the proper time for surgical intervention in a purulent collection such as an empyema. In addition to the changes of the neutrophils the appearance of other cells must also be taken into consideration in infection, that is, more immature forms of granulocytes, such as promyelocytes and the irritation cells.

A form of irritation cell that is rarely seen is the Rieder cell, which bears a very striking resemblance to a monocytic cell except for the common absence of granules and the great nuclear polymorphism. There are also the rather interesting but rare forms of polymorphonuclear cells, including gigantic forms occasionally seen in long-standing infections, very small polymorphonuclear cells, and finally polymorphonuclear

cells with poikilocytosis. Some of these forms seem to suggest an amytotic division of the nucleus.

Four cases of appendicitis with peritonitis are reported in order to show the value of the study of the degenerated cells in prognosis.

CASE REPORTS

CASE 1.—Charles R., male, age 50, was admitted to the Bryn Mawr Hospital on Mar. 24, 1934, with a history of abdominal pain dating back to Mar. 15. The patient was operated upon Mar. 26, when a pelvic periappendicular abscess was found.

In the first 5 days of the disease, the temperature was only slightly above normal with a slight rise occurring on Mar. 29. The total white blood cell count oscillated between 23,000 and 40,000 in the beginning, later dropping to 14,000. The number of young cells diminished considerably, whereas the number of mature cells increased, therefore giving an improvement in the nuclear shift. This would have pointed to a rather favorable outlook. However, 3 days before the rise in temperature, a sharp increase in the number of degenerated cells was found in circulation, from 5 to 37 per cent. The number of degenerated cells remained high thereafter. This suggested definitely an unfavorable outcome. The patient died on Apr. 12. This case points out the fact that the nuclear shift alone is not dependable in prognosis.

CASE 2.—Robert S., age 9, was admitted on Feb. 21 with a history of pain in the right lower quadrant, which began 3 days before. The temperature on admission was 102° F. The white blood cell count was 16,000 with a severe hyperregenerative shift. The number of degenerated cells was already high, 44 per cent. At operation a generalized peritonitis was found with a periappendicular abscess. The patient left the operating room apparently in fair condition. The day following operation the degenerated cells rose to 90 per cent and remained high, the patient dying 6 days after operation. It is to be noted that conditions did not become critical until some time after the operation, whereas the high number of degenerated cells along with the high shift had already forecast a poor prognosis.

CASE 3.—Isabel H., age 29, was admitted with a history of pain in the abdomen dating from the day before. On admission the patient had vomiting, tenderness and rigidity over the abdomen, and a temperature of 100° F. At the operation, performed on the day of admission, there was a gangrenous appendix with generalized peritonitis, the condition of the patient being serious. The blood picture was followed for only the first 5 days of the disease. While the total number of cells varied from 18,400 to 10,900, the number of cells increased from 18 to 30 per cent. This, with the temperature between 100 and 102° F, and the poor general condition of the patient, suggested a rather reserved or poor prognosis. However, the number of degenerated cells was always low, varying from 9 to 3 per cent. The patient made a complete recovery.

CASE 4.—Anthony K., age 40, was admitted to the hospital in grave condition with a high temperature, rigid abdomen, and vomiting. He was operated upon at once, and there was an acutely inflamed gangrenous perforated appendix with generalized peritonitis. The condition of the patient was critical following the oper-

ation. On the sixth day of the disease, 4 days after operation, there was a severe rise of temperature to 105° F. with a drop of the total leukocyte count to 6200 and a fairly high number of young neutrophils. These conditions alone would have pointed quite definitely to an unfavorable outcome. However, the number of degenerated cells had remained relatively low, that is between 14 and 15 per cent, and a favorable prognosis was suggested. The patient had a long, protracted fight but was eventually dismissed from the hospital in good condition.

Bryn Mawr Hospital.

ABSTRACT OF DISCUSSION

FREDERICK O. ZILLESSEN (Easton): Dr. Strumia stressed the important point of repeated studies of the blood film. One single slide does not disclose everything. So many factors influence the condition of the blood and the cells that repeated studies must be made. A single study of the temperature is not made in any case, nor should there be a single study of the blood count. Not only the studies are important but the types of studies, and they should be done at different

times of the day. The administration of drugs, food, etc., all influence the blood and must be properly accounted for. Study of the blood film will often reveal a marked change in the condition of the patient; this is useful both as a prognostic and diagnostic aid. Often a study of the blood film will disclose whether or not pus is present. In cases of osteomyelitis this is important. In appendicitis the total leukocyte count may be high or low, but there are several kinds of white blood cells, all of which should be carefully studied.

ROBERT T. DEVEREUX (West Chester): From 3 to 20 times as much marrow tissue is required to produce the granulocytes as the red blood cells, although there are many less circulating in the blood. This suggests the tremendous energy the bone marrow expends in the formation of granulocytes, which are very important in body resistance. A method of measuring the resistance of the sick has long been needed. The clinician will be greatly helped who takes time to study the interpretation of the differential blood counts, particularly the Schilling hemogram. Satisfactory clinical hematology is not beyond the facilities of a modest laboratory and not too time-consuming for practical purposes.

URETERAL STRICTURES AND THEIR TREATMENT*

BURTIS M. HANCE, M.D., EASTON, PA.

A ureteral stricture is that disease or condition characterized by inflammatory changes in the wall of the ureter which cause an encroachment upon the lumen of the ureter. This condition may be divided into the obstructive type and the nonobstructive type. It may also be classified as the focal infection type, the traumatic type, and the local inflammatory type. This last is by far the most common and is seen generally in women.

ETIOLOGY

The etiology of strictures of the ureter has caused much discussion in medical circles. Guy L. Hunner, of Baltimore, spent considerable time impressing upon the profession that a large percentage of ureteral strictures were caused by focal infection such as diseased teeth and tonsils, the infection being carried by way of the blood stream to the point of pathologic involvement under discussion. Pelvic inflammatory disease in women is by far the most common cause of ureteral strictures. The stricture in this instance is usually in the lower tenth of the ureter, is of the nonobstructive type, and is probably the hardest kind to dilate. The type which results from an incision for the removal of ureteral calculi is rare, and is the result of poor technic.

If the incision is made in the long axis there will be no constriction, but if the incision deviates from the long axis there will be a constriction in direct proportion to the deviation. Ureteral calculi passing down the ureter seldom cause strictures. Often in operating for a ureteral calculus a well-developed stricture may be found below the calculus, but undoubtedly the stricture was there before the calculus. When the ovarian artery is ligated, the ureter is occasionally included in the ligature, with subsequent stricture.

SYMPTOMS

Symptoms of ureteral strictures are a little vague and indefinite at times, but the large majority of such strictures are rather easy to diagnose, especially that type which is situated near the bladder. The keynote in the diagnosis is the fact that the patient has exaggerated vesicle symptoms such as nocturia and marked frequency associated with a negative urine. The symptoms are varied. Any patient with indefinite pain, located over the course of the ureters from the kidney down, which simulates various other diseases, such as gallbladder disease, appendicitis, and adnexal disease, but is variable enough to cause some doubt in the doctor's mind, should be cystoscoped and examined for ureteral strictures.

* Read before the Section on Urology of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 2, 1934.

DIAGNOSIS

In most instances the diagnosis of ureteral strictures is made accidentally during a cystoscopic examination. A patient with many subjective bladder symptoms such as nocturia, frequency, and pain in the bladder region who has shown a negative urine for a long period of time usually has a ureteral stricture. Unfortunately many of them do not present these classic symptoms and are often subjected to several operations, long medical treatments, and even cystoscopies before the strictures are finally discovered. When Hunner first informed the medical profession about the rather frequent occurrence of ureteral strictures, the physicians and surgeons received this information with some skepticism. To-day, however, this information is generally accepted because many urologists have discovered that it is a comparatively common finding. The exact diagnosis must not be made too abruptly, for a spasmodically contracted ureter will fool the best diagnosticians. One examination is not enough upon which to make this diagnosis. Ureterograms help, but they should not be depended upon, especially for the nonobstructive type. The ureterogram will picture the obstructive type very well, but in the nonobstructive type it is too similar to that of spasm of the ureter. The usual finding occurs when an attempt is made to pass a catheter and it is not possible to pass the regular No. 6. If the patient's symptoms point to ureteral strictures, a small No. 3 or No. 4 bougie should be passed. If this passes readily and it is deemed advisable to do no more at the time, and if the patient returns in a week greatly relieved, such a result is more than a suggestion of the diagnosis. If the size of the bougie is increased up to No. 5 and this passes, with or without difficulty, but it is still impossible to pass a No. 6 catheter and the patient has been benefited by the previous small dilatations, a diagnosis of ureteral stricture is justified.

PATHOLOGY

In chronic forms of ureteritis the wall of the ureter is invaded more deeply. With the deposition of fibrous tissue the lumen may be obstructed by contracture, and the elasticity and contractility of the ureter diminished. If the obstruction caused by such a stricture is sufficient, dilatation will take place above it, and a localized inflammation may block or alter the peristaltic waves. Inflammation spreading through the lymphatics may cause the various acute and chronic changes in the wall of the ureter with little or no involvement of the mu-

cosa. According to Hunner this intramural type of infiltration with consequent stricture is very common, especially in women. Exact pathologic data on the subject are difficult to obtain since the caliber of the ureter varies so much and since muscular activity may affect the size of the ureter as seen in pyelograms. Inflammatory stricture at the ureteropelvic junction may occur as a result of renal inflammation when the remainder of the ureter is not markedly involved. Stone in the pelvis predisposes to this complication. It is distinguished from congenital narrowing at this point by the fibrotic thickening of the ureteral walls, and the lumen is usually irregular. Patients with bilateral ureteral strictures usually have very poor renal function, but after the strictures are dilated this function returns remarkably well.

ASSOCIATED PATHOLOGY

At the site of the ureteral stricture the mucosa becomes incrustated with lime salts, and the patient will present all the symptoms of having a ureteral calculus. The roentgenogram may even show a shadow that suggests a calculus, but following the passage of a ureteral catheter through this constricted area the incrustations are broken up; the patient frequently passes this loosened material and from then on is symptom-free. A stricture at the ureteropelvic junction will dilate the major pelvis and shorten the calices. If to this is added an infection, a pyelonephritis will develop which is hard to control. Calculi do not form in the bladder without some type of obstruction; the same principle holds in the renal pelvis. Stones of the kidney are not likely to form unless there is some impediment to the outlet. Even in the nonobstructive type the renal function is decidedly impaired. An obstructive type of stricture may be the underlying cause of pyelonephrosis and abscessed kidney. There have been cases of ureteral stricture that showed a continuous albuminuria for a number of years. After a definite focus of infection was removed and the stricture dilated, the albuminuria disappeared.

TREATMENT

The treatment of ureteral stricture is very much the same as the treatment for any other stricture. The primary method of treatment is gradual dilatation, starting with a No. 3 bougie and continuing at weekly intervals until a No. 11 Garcia catheter can be passed with ease. A diagnosis of the foci of infection should be made, and these conditions cured. This is first accomplished by culturing the urine and later taking

cultures from diseased tonsils and teeth, which are often the underlying cause of the stricture. In the type of stricture that is found in women as a direct result of pelvic inflammatory disease, the stricture should be dilated and the pelvic inflammatory disease treated simultaneously. This type of stricture gives the best results.

FOLLOW-UP NOTES

The follow-up of these cases has been surprisingly satisfactory. Miss R. was referred to me in 1920. This patient had a urine of very low specific gravity; there was some albumin but no pus or blood cells. There was a constant desire to void, and she had nocturia 9 to 10 times. There was also vague abdominal pain, pain in the costovertebral angles, ankle edema, and vertigo. A cystoscopic examination was made, and neither ureter could be catheterized. A phenolsulphone-phthalein test was done, and no color came through in an hour. After a No. 3 bougie was passed on each side, the patient improved remarkably. The ureters were slowly and with much difficulty dilated until a No. 6 catheter could be passed. Diseased teeth were removed, and in 6 months the renal function test was 3 per cent in each side in 30 minutes. It has been 14 years since this patient was first seen; she is in good health and has had no recurrence.

A good example of the direct extension type is L. H., age 30, who had a criminal abortion performed. She developed a pelvic abscess, which was drained. After a stormy convalescence she was referred to me suffering with chills, fever, pain in the lower abdomen, and many bladder symptoms. The urine was full of pus. Catheters could not be passed to either ureter, but after several attempts a small bougie was finally passed and she was immediately relieved of her symptoms. Six months later this woman was symptom-free, the pelvic inflammatory condition having disappeared.

A very difficult case to diagnose was the case of a young girl, H. A., age 17, who was referred to me suffering with pain in both lower quadrants. The referring diagnosis in this case was salpingitis, but beside an intact hymen her urethral smear was negative. The urine was also negative. The No. 6 catheter could be passed to both kidneys without much difficulty. Pyelograms were normal, but a culture of the urine showed nonhemolytic streptococcus. This girl did not improve. I was reluctant to release her as a patient, because I realized that her trouble was in all probability urologic in nature. One day a No. 9 Garcia catheter was passed on the right side. One week later she returned to

my office and requested me to do the same on the other side, as the right side was improved. This was done with the same result. The strictures were of the nonobstructive type, and as no foci of infection were looked for at the time, her symptoms recurred in one year. This time her family persuaded her to go to a general surgeon, who removed her appendix. This did not relieve her, and she returned to me. The same satisfactory result was obtained as previously. About this time she had her tonsils removed. Since then she has had no recurrence; it has been 4 years since the ureters were last dilated.

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ABSTRACT OF DISCUSSION

DAVID L. SIMON (Pittsburgh): Ureteral stricture has been the subject of more discussion by urologists in the past 15 years than almost any other urologic condition with the exception, possibly, of resection of the prostate. This discussion has been centered mainly on the question of the incidence of the condition, and the answer to the question is dependent upon the answer to 2 other questions. First, what constitutes a stricture of the ureter? Second, what evidence must be produced to warrant a diagnosis of ureteral stricture?

The subject has divided observers into 2 groups, one group holding that every narrowing of the ureter producing structural or functional obstruction is a stricture. As proof of this there have been presented many clinical cures or improvements following treatment by dilatation. The second or more conservative group insists upon a demonstrable anatomic obstruction with evidence of dilatation above the obstruction as necessary for a positive diagnosis of ureteral stricture.

The second or conservative group fails to take into account incipient strictures or those of large caliber, and a period in these cases of positive ureteral stricture when there is no dilatation proximal to the strictured area.

Strictures of large caliber are often not demonstrable or but vaguely so on the urogram, and it may require a large bulb for their recognition instrumentally, yet they are capable of producing well-defined clinical symptoms, both subjective and objective. Further, many of these cases are entirely freed from pain and other symptoms by simple dilatation of the ureter.

As to the absence of dilatation above the stricture, we must bear in mind the physiology of the normal ureter and the change in that physiology as well as the anatomy of the partially obstructed ureter. The ureter is not merely a tube that transmits urine from the kidneys but is composed partly of involuntary musculature that has a definite peristalsis, by which urine is conducted to the bladder. In the presence of an obstruction this peristalsis is primarily exaggerated with a consequent hypertrophy of the musculature. The period in which there is hypertrophy of the muscular coat of the ureter is, so to speak, a compensatory stage. At this stage the muscle is hypertrophied; the typical urogram is not obtained nor the positive evidence that is demanded by many observers. Patients do complain when in this stage, and sometimes they actually show more symptoms than later on because the exaggerated peristalsis produces a colic. Later,

the ureter dilates above the obstruction with the peristaltic waves becoming weaker and finally absent, producing ureterectasis and pyelectasis. This is the period of decompensation in which cystoscopic and urographic evidence is very plain.

Considering the etiology of strictures, urologists are well in accord on those due to contiguous inflammation, trauma, and invasion of the ureteral wall as a result of extension from inflammatory or neoplastic conditions of the pelvis. The hematogenous, metastatic, or focal infection type is still the bone of contention. Many urologists deny the existence or at least minimize the incidence of this type of ureteral stricture. Yet, despite the work of Hunner, urologists find very few strictures in which local causes are positively excluded. Although there are some types of cases cured by removal of foci of infection, their number is not large.

Calculus is not often responsible for ureteral stricture. As to the clinical picture, these cases present one or more of the following groups of symptoms: Abdominal pain with recurrent attacks of colic, pyuria with recurrent attacks of pyelonephritis, disturbances of urination or bladder symptoms, and recurrent calculous formation. In our clinic about 80 per cent of the cases have presented the first 2 groups of symptoms only. About 20 per cent of cases showed pyuria, always in combination with one or more of the other groups of symptoms. Of no little interest have been the cases presenting recurring ureteral colic simulating calculus. Recently there have been a number of cases with histories of typical attacks of colic, during which the urine showed microscopic blood and pus, which upon investigation proved

to be ureteral strictures. A recent case was that of a physician who believed for 2 years that he had a stone in the ureter. It was demonstrated with the pyelogram that he had no stone, but did have a definite ureteral stricture of a focal infection type. All these cases were cured.

DR. HANCE (in closing): Ureteral strictures are not definite conditions. Why is it that so many true ureteral strictures do not cause any dilatation above the stricture? There is the case of a young woman who had a ureteral stricture that was extremely tense. It was about one inch in length, and a bougie could not be passed through the ureter. After 5 or 6 attempts, she was catheterized but had a terrific reaction. In the meantime intravenous pyelograms were done and they were perfectly normal. The ureter showed no dilatation, but there was a contraction down to pin-point size for the space of an inch above the bladder. The urine was clear. I could not understand why the ureter did not show dilatation above the bladder. Whether it was early malignancy or whether it was a tuberculous process, I never could decide. There were other cases hard to explain. It is interesting that the urine is negative. One woman was under the care of one of our leading general practitioners for 12 years, and he presumed there was nothing the matter with the kidneys because the urine was negative, but she had several bladder symptoms. Examination disclosed that she had very tight strictures. It was a matter of months before a No. 6 catheter could be passed through the ureter, but she was relieved as soon as the smallest bougie was used, all symptoms disappearing.

THE DEVELOPMENT OF ROENTGEN AND RADIUM THERAPY*†

EUGENE P. PENDERGRASS, M.D., PHILADELPHIA

Introduction and General Considerations.—The discovery of the roentgen rays in 1895 by Roentgen and of radium in 1896 by Becquerel created a tremendous enthusiasm among physicians, many of whom have died as a result of their pioneering investigations. Roentgen rays are vibrations set in motion when electrons traveling at high speed impinge upon heavy metals. Radium is a radioactive element which comes from uranium. It gives off several kinds of radiations: (1) Massive particles having a positive electric charge, which are called alpha particles; (2) much lighter particles having a negative charge, called beta particles; and (3) penetrating radiation which carries no electric charge, called gamma rays. Gamma rays and roentgen rays are similar to light rays but have a higher frequency and shorter wave length.

The first investigations were largely concerned with diagnosis. It was not long, however, until it became obvious that the radiations from roent-

gen rays and radium not only affected the sensitive emulsion of a photographic plate but in traversing living tissues caused definite biologic changes. Since then the development of radiotherapy has made remarkable progress. In the beginning, therapeutic irradiation was largely confined to diseases of the skin because the biologic effect of the roentgen rays and radium on the various tissues was not understood. The apparatus, including the tubes and transformers, was such that it was impossible to control the dosage accurately.

One of the early experiments was upon the eyes. Edison and others commented upon the irritating effect of the roentgen rays upon the eyes and because of this recommended their use in the treatment of blindness caused by cataract. Tests were made upon 2 patients, and results were reported as favorable.

The roentgen rays were thought to be present in sunlight and, as solar radiation was known to have bactericidal properties, irradiation by roentgen rays was used in the treatment of diphtheria and tuberculosis. Subsequently, various experi-

* Read before a General Meeting of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 3, 1934.

† From the Department of Radiology, Hospital of the University of Pennsylvania, Philadelphia.

ments proved to be controversial and it was not until the beginning of the twentieth century that it was generally accepted that the roentgen rays had no direct bactericidal effect except after prolonged exposures. The known therapeutic effects in infections such as erysipelas are the result of indirect changes in the phagocytic and other physiologic processes occurring in the tissues.

In a short time, however, numerous investigators, including Heineke, Albers Schönberg, Bergonie, and Tribondeau, reported the results of their experiments. They found that the roentgen rays caused definite changes in the cells of various tissues. These effects varied from slight changes to those of complete destruction. Gradually it was learned that different kinds of cells varied considerably in radiosensitivity, and because of this knowledge the number of conditions treated by irradiation has progressively increased.

Following these investigations, it was observed that the radiations of roentgen rays and radium had a decided effect upon the white blood cells, especially the lymphocytes. Irradiation was then employed in the treatment of the various kinds of leukemias and lymphoid hyperplasias.

Albers Schönberg, Regaud, and others showed by their experiments that the spermatogonial cells of the testes and the follicular epithelium of the ovaries are very susceptible to irradiation. As a result of these investigations, irradiation is now used in the treatment of embryonal tumors of the testes and certain hemorrhagic conditions of the uterus.

During the last decade irradiation has developed until it is now accepted as the most effective method of treating a number of conditions, including carcinoma of the cervix, uterine myomas, giant cell tumors of the bone, endothelial myeloma of the bone, embryonal carcinoma of the testes, and various types of lymphoblastomas.

The histologic effects by this time were sufficiently understood to permit definite conclusions about effects of irradiation upon different tissues. The therapeutic effect upon deeply seated tissues was greatly enhanced by the work of G. Perthes, who recommended the introduction of filters which would eliminate the less penetrating rays, which had caused so much damage to the skin. At present the use of various filters, copper, lead, gold, platinum, *etc.*, forms an integral factor in computing dosage. Roentgen rays and radium are also used extensively in dermatology. MacKee lists 97 conditions that are improved or cured by irradiation.

Early Equipment.—It is of interest to know the sort of equipment which was used when

roentgen therapy began. Tesla coils, energized by batteries or from the lightning circuits, produced the high tension currents. As it was necessary to interrupt the current, an interrupter was a troublesome part of the equipment. The Crookes' roentgen-ray tubes were another source of difficulty.

Dosage.—The only way of estimating the intensity of the output of the roentgen rays or dosage was based upon fluoroscopic or photographic effects. This explains to some extent the reason for injuries to the hands of the early operators, who were in the habit of placing their hands between the roentgen-ray tubes and the fluoroscopic screen to determine if roentgen rays were being obtained. In 1905, an American, Milton Franklin of Philadelphia, studied the possibility of measuring the roentgen rays by employing an ionization method. It is most interesting that he was the first to recommend the use of a unit of measurement. Such an international unit, the roentgen referred to as r, was adopted a few years ago. This unit is the cubic centimeter of roentgen therapy.

Roentgen Ray and Radium Protection.—In the early days very little was known about protection from these agents. It was only after injuries became apparent that the early workers discovered that there was a real need for protection. Shortly after the discovery of the roentgen rays, lead was found to be a good filter, and to-day it is probably the cheapest and best type of protection available. The United States Bureau of Standards is working constantly on the problem of protection, which is as much a problem for the operator and patient to-day as it ever was, because of the use of large radium packs and supervoltages that are being employed in the production of highly penetrating roentgen rays. For the small clinic utilizing roentgen therapy with voltages not over 200 kvp. and small amounts of radium, sufficient knowledge for adequate protection to every one is available.

Improvements in Equipment.—By 1906, H. Clyde Snook, of Philadelphia, had developed the interrupterless transformer, which was one of the most important developments in the mechanical equipment for roentgen therapy. This was followed in 1913 by the development of the hot cathode tube by an American physicist, W. D. Coolidge. This contribution has been regarded as the most important which American genius has ever offered.

Types of Radium.—After the isolation of radium by the Curies, it was noted that the biologic effects of some of its radiations were

similar to those of the roentgen rays. At present all of the various changes in the life cycle of radium, from its parent (uranium) to its end-product (lead), and the length of life of each cycle are known. This has been made possible through the able investigations of many physicists on the atomic structure of the radioactive substances. The radium element in tubes or needles and the radium emanation in glass, gold, or platinum seeds are the forms most frequently employed in therapy to-day. In some institutions, large radium packs or bombs containing 4 to 12 gm. of radium are utilized for deep therapy.

The dosage, protection, biologic effects, and application of radium in therapeutic cases are gradually becoming better understood, as indicated by improvement in results of treatment.

The indications for either roentgen or radium therapy are not antagonistic but largely supplementary.

Biologic Effects of Roentgen Rays and Radium.—When roentgen and radium radiations are absorbed in living tissues, they initiate a series of changes which lead to temporary disturbance of the cells or to their destruction. These effects are not manifested immediately but are visible in a few hours to a few days, depending upon the dosage. Some of the physiologic and biologic changes are as follows:

1. Alteration of rate of cell division; some are destroyed.
2. Alteration of pH of the cell; there is an increase in acidity.
3. Increase in the permeability of the cell.
4. Cell respiration is decreased.
5. Alteration of viscosity.

Morphologic changes which occur are probably secondary. The tendency is for the cells to return to normal, and they do so quickly if they are not injured too badly. Similar cells, however, will vary in their susceptibility.

Effects of Roentgen Rays upon Heredity.—In 1903, Albers Schönberg discovered the sterilizing effect of roentgen rays. Since then, radiologists have been concerned whether or not irradiated germ cells which escaped complete sterilization may have had changes produced in them which might be reflected in succeeding generations. A tremendous amount of work has been done on the fruit fly and various animals, and it has been found that mutations do occur, but many generations may pass before the mutations manifest themselves. The consensus of opinion is that this work justifies caution in giving treatment over reproductive organs or exposing ourselves to too much irradiation.

Modern Methods of Treatment.—It is now possible by physical means to determine just how much radiation can be delivered into a tumor, no matter where it is situated. It is sometimes impossible to deliver all of the treatment desired into a given area by either one or the other agent. It, therefore, becomes necessary to use roentgen therapy to support radium therapy and vice versa. In some locations, such as the eyelids, nose, or cervix, radium may be the agent of choice because of its adaptability to a small area.

The effects of the gamma rays of radium have been thought by some to be so selective in their action upon neoplastic tissues that the desire has been to build roentgen-ray transformers powerful enough to deliver wave lengths equivalent to the gamma rays of radium. This would require transformers that would deliver 2,000,000 volts. At present there are several roentgen-ray equipments that are running at approximately 1,000,000 volts. The therapeutic effects of such super-voltage is still an unknown quantity, but the first reports of 3 years' observations can be regarded as encouraging.

Current.—From the above brief outlines, the increasingly important relation of radiology to the therapeutic phase of medicine is obvious. It must be equally clear that the successful practice of roentgen and radium therapy requires a broad and thorough training in medicine. It also requires a good knowledge of certain aspects of physics and chemistry. A radiologist should have a comprehensive idea about the effect of irradiation upon different kinds of cells, tissues, and organs. The informed radiologist should know the physical methods of measuring the quantity and quality of radiation best adapted to influence favorably the lesions treated. It seems hardly necessary to state that such work requires and should be restricted to graduates in medicine. Such unfortunately is not the case at the present time, even in this state.

Desjardins is correct when he states, "At present, radiotherapy of a high standard is a rare commodity." Too often treatment by roentgen rays is left to the judgment of technicians, or patients are treated without an adequate examination. If such is the conception of radiotherapy, why go to the expense of costly apparatus? An ordinary light would serve the purpose as well and probably do less damage. In many hospitals radiotherapy is undertaken on the assumption that such work is merely a matter of apparatus. Nothing could be more misleading. The chief factor is an experienced and trained personnel; equipment is secondary. Hundreds of hospitals have tremendous sums

invested in apparatus and employ an inexperienced and poorly trained radiologist. The laity and many physicians have yet to realize the possibilities and limitations of radiology or its effects. The informed radiologist should be regarded as a medical specialist to be consulted as such.

The general physician and often the patient demand a good medical or surgical consultant, but unfortunately they have been taught so little about radiology they will accept blindly the most inadequate interpretation or treatment as representative of the best. The crying need of to-day is for more adequately trained radiologists, and to supply this need the American Board of Radiology has been created. In order to be certified by this board, it will be necessary to have had at least 3 years' training in all branches of radiology before the applicant is eligible to stand the examination.

Under *comment* the author has largely abstracted the remarks made by Dr. Arthur Desjardins before the Council on Medical Education. DESJARDINS, A. U.: "Status of Radiology," *J. A. M. A.*, May 23, 1931, 1749-1753.

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ABSTRACT OF DISCUSSION

WILLIAM J. CORCORAN (Old Forge): That part of Dr. Pendergrass's paper which deals with the personnel of the roentgen-ray department will stand repetition and emphasis. The primary consideration in the roentgen-ray department is the personnel, and the equipment is

secondary. It is a sad commentary that in some instances laymen are at the head of roentgen-ray departments. Fortunately, the foundation has been laid in this country for the eradication of this evil in the incorporation of the American Board of Radiology, to which Dr. Pendergrass referred. It is hoped that within a brief period of time this evil of employing nonmedical persons to direct roentgen-ray departments will no longer exist.

Some of the most brilliant accomplishments in roentgen-ray and radium therapy have been instances in which cases were referred to the radiologist for treatment, with a sort of forlorn attitude, that is, "We cannot do anything for the patient, but we hope you will be able to." One notable example is in carcinoma of the cervix. Treatment by radiation is the accepted treatment throughout the world, and the physician who has a case of this kind and does not give the patient the benefit of radiation is very much on the defensive. Malignant conditions of the skin and the horrible conditions noted about the face 15 or 20 years ago no longer are seen in the proportion they were. In the improvement of these conditions and the benefits derived from radiation treatment a great deal of credit is due to the general practitioner, because in the past 10 or 15 years he has begun to send patients to the radiologist when he sees the slightest ulceration of the skin or evidence of a pigmented mole.

In regard to postoperative recurrent carcinoma of the breast, these cases are being sent to the radiologist rather than being subjected to more surgery. Postoperative radiation of brain tumors and tumors of the spinal cord is beginning to show results. There has been more progress made in radiology in the past 20 years than in any other scientific subject, particularly in medicine, and it has been stated without question by eminent men outside of this specialty that the undisputed leadership in the treatment of malignant conditions to-day is in the hands of the radiologist.

DIAGNOSIS AND MODERN TREATMENT OF AMEBIASIS*

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Amebiasis means an infestation of the intestine or other organs by a protozoan parasite. The infestation may occur without observable symptoms or be characterized by attacks of diarrhea (dysentery) or by other symptoms associated with the nervous and digestive systems. Dysentery is only one stage of amebiasis and occurs only in the most severe type of amebiasis.

Amebiasis is practically world-wide in distribution and is frequently observed in the temperate zones. It has been conservatively estimated that from 5 to 10 per cent of the population of the United States is infested with *Endameba histolytica*. Sooner or later the problem will be one of national importance from the standpoint of public health.

It is most unfortunate that the term "amebic dysentery" has become synonymous with amebiasis because the vast majority of infestations are not evidenced by dysenteric symptoms at all but by much milder symptoms often unrecognized as being caused by this parasite. This results in failure to diagnose and treat a very important and widespread disease present in all parts of the world.

ETIOLOGY

Of the 5 species of amebae occurring in man only *Endameba histolytica* is pathogenic. The others are harmless, but 2 of them (*Endameba coli* and *Endolimax nana*) may be mistaken for *Endameba histolytica* in the examination of stools.

In the intestine under favorable conditions each ameba divides into 2 daughter amebae at

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short intervals and thus rapidly proliferates. These are called vegetative forms, produce acute amebiasis, and are readily recognized microscopically by size, motility, ingestion of erythrocytes, etc.

These vegetative forms, if swallowed in food or water, are destroyed by the hydrochloric acid of the stomach; hence amebiasis is not ordinarily spread by their ingestion.

In chronic amebiasis and under unfavorable conditions the parasite passes into the precystic and cystic stages, in which it loses motility and becomes round and encapsulated. These cysts are highly resistant to chemical agents and may live for weeks in water or moist feces kept in the shade. They are gradually destroyed by sunlight and drying. If swallowed, they escape destruction in the stomach; hence, amebiasis is usually spread by ingestion of cysts and millions may be passed daily by a carrier. In the intestines each cyst ultimately produces 8 amebulae, which finally reach adult types capable of producing disease.

EPIDEMIOLOGY AND TRANSMISSION

Human beings are infested by swallowing cysts in water contaminated by sewage, milk contaminated by water or the hands of carriers, uncooked but contaminated fruits and vegetables, and other uncooked foods contaminated by carriers. Immigrants from infested countries and the use of human sewage for the fertilization of gardens are important sources as is likewise the growing consumption of raw fruits and vegetables especially from southern parts.

The use of cheap labor in food-dispensing establishments is an increasing source of danger as is likewise lack of personal cleanliness and adequate facilities for the cleansing of the hands after defecation.

Plumbing defects permitting the contamination of drinking water and foods by sewage is a source of danger (Chicago) as is likewise travel to heavily infested districts and countries.

Living cysts have been found in the feces of flies which may contaminate foods, but contamination by human carriers is regarded as much more important, especially in the case of those handling foods.

The presence of a carrier in a family usually results in the infestation of other members of the household. Women are especially likely to be dangerous carriers in families because of preparing food. Therefore *always examine the feces of all members of a family* in which the disease is discovered.

Reinfection of a recovered case may occur if contact with a carrier continues. This probably accounts for more recurrent attacks than relapses of the disease.

PROPHYLAXIS

Unsuspected and undetected carriers are more likely to spread the disease than acute cases of dysentery. Contact carriers are more numerous and dangerous than convalescent carriers. Therefore, detection and proper treatment of carriers are most important, with special reference to cooks and food handlers, in the prophylaxis of amebiasis.

Since about 5 per cent of the population handles foods the problem of detection is a very difficult public health problem, especially since the carrier state may be intermittent. Furthermore, a capable technician cannot thoroughly examine more than 8 to 10 stools per day. Several stool examinations are required before negative results are acceptable. But the stools of all food handlers in public eating places should be examined as far as possible before employment is given. Carriers should not be allowed to handle foods. Otherwise they need not vacate their occupations but should receive treatment.

Proper disposal of sewage with protection of water supply is important. Filtration or boiling of drinking water is required to render it safe. Cysts are not killed by chlorine in any amount which can be used for sterilization. Protection of food from flies and the prevention of the breeding of flies are important prophylactic measures.

Education of the public is a valuable measure. Carriers and convalescents should wash their hands thoroughly after defecation, avoid preparing and handling food for other persons until considered free of infestation, and dispose of their feces against possible contamination of flies, food, water, or articles handled by other persons.

Rigid inspection of plumbing in public eating places along with adequate toilet and washing facilities are additional measures of value.

IMMUNITY

Whether or not natural immunity to amebiasis exists is unknown. It is likely, however, that the majority of persons possess some degree of natural resistance. This does not prevent them from becoming carriers but apparently affords protection against amebic enteritis, amebic dysentery, and complications.

Some immunity is apparently acquired during amebiasis as indicated by the development of

complement-fixing antibody in the blood, but it is apparently insufficient to effect recovery unaided by medicinal treatment in the majority of cases. Patients who have recovered from amebiasis are susceptible to reinfection and relapses so that acquired immunity is apparently of short duration.

There is at present no effective means of vaccination against amebiasis. Neither is there any immune serum for prophylaxis and treatment such as is available for bacillary dysentery.

PATHOLOGY

Endameba histolytica has a selective affinity for the intestines and especially the lower end of the ileum and the entire colon. It is capable of invading the coats of the intestine and normally is a tissue dweller where it apparently produces cytolytic effects. It also probably produces hemolytic toxins responsible in part for the secondary anemia of amebiasis.

The pathologic lesions vary all the way from slight surface necrosis to extensive abscess and ulcer formation, destroying large areas of the mucosa, submucosa, and muscular layer, and sometimes resulting in perforation of the intestine and bladder. Secondary bacterial infection adds to the suppurative changes.

Liver abscess is the most serious complication. It occurs in approximately 15 to 20 per cent of cases of amebic dysentery but is rare in northern parts. It may also occur in carriers. Amebic abscesses of the brain, spleen, and other viscera occur but are very rare. Whether arthritis is caused by *Endameba histolytica* is quite doubtful, but amebic ulcers may be foci of bacterial infection of possible etiologic importance in this disease.

The lesions in symptomless carriers are unknown, but superficial ulceration has been observed in some.

SYMPTOMS OF CARRIERS

About 50 per cent of carriers show symptoms which are not pathognomonic but which usually disappear under treatment. Many present no symptoms at all. Any or all of the following may be present: Attacks of alternating diarrhea and constipation lasting a day or two; colic and gaseous distention or mild abdominal misery; pain and tenderness in lower right quadrant sometimes mistaken for appendicitis; tenderness on deep pressure over colon; sometimes tenderness of liver, at times mistaken for cholecystitis; capricious appetite and anorexia; headache and pains in limbs, especially in early morning; general weakness with lack of energy and ambi-

tion; condition of being underweight, with sallowness and moderate anemia, and excessive perspiration of palms and soles of feet. Any or all of these should lead to an examination of the feces.

SYMPTOMS OF AMEBIC ENTERITIS AND DYSENTERY

The incubation period is very variable due to variations in individual susceptibility, virulence, and dosage of parasites, character of bacterial flora, etc.; it is usually from 5 to 100 days.

In *amebic enteritis* the symptoms are those of the carrier state with severer diarrhea generally followed by constipation. The enteritis is usually chronic but may be acute and may or may not be followed by true dysenteric symptoms. The stools contain much mucus but usually no visible blood, and vegetative amebae (motile trophozoites) are readily found.

In *acute amebic dysentery* the onset may be sudden or follow an enteritis. There is severe abdominal pain followed by an intense desire to defecate. Nausea and vomiting may occur. Slight fever occurs in acute cases. There are numerous stools (15 to 30 or more per day), which contain mucus, blood, and sometimes shreds of intestinal mucosa (gangrenous type). Progressive emaciation is followed by weakness with great depression. The tongue is coated and the breath foul. There is abdominal tenderness and anemia, and jaundice in some cases. Death may occur preceded by severe vomiting and collapse.

Chronic amebic dysentery may follow an acute attack or be chronic from the beginning. Repeated attacks of colicky diarrhea with small amounts of mucus and blood in the stools may occur. There may be anorexia, loss of weight, mental depression, dull headache, disturbed sleep, anemia, and general malaise. Between attacks the health may improve, but invalidism usually occurs over years of time. Usually there is abdominal tenderness with thickening of the colon sometimes to be felt, especially in the right iliac fossa.

DIAGNOSIS

Diagnosis is best made by examination of stools for *Endameba histolytica*. It requires special skill and experience, which many laboratorians lack. Diagnosis is seldom warranted unless parasites are found. A single negative examination does not exclude infestation. Every public health laboratory should have expert technicians for this work.

Freshly passed stools are preferred if motile

vegetative forms are suspected. Cold stools are satisfactory for the detection of cysts in chronic cases and carriers. Fresh wet or iodine-stained preparations are used for microscopic examination. Prolonged search for cysts is sometimes required. They must be differentiated from *Endameba coli* and *Endolimax nana*.

Cultures of stools for *Endameba histolytica* are not of much practical value. The complement-fixation test of Craig is not yet on a practical basis because of difficulty in preparing the antigen. However, it offers much hope of greatly aiding diagnosis.

Proctoscopic and roentgen-ray examinations are sometimes helpful, especially in chronic cases. The stools in all cases of "colitis," "mucous colitis," and "ulcerative colitis" should always be carefully examined for *Endameba histolytica*. These are the commonest errors in diagnosis. Some cases are mistaken for appendicitis or cholecystitis; mortality is high in cases operated upon. Amebic proctitis and colitis are sometimes mistaken for malignant growths. Bacillary dysentery and flagellate diarrheas are usually differentiated clinically, especially by examinations of feces.

AMEBICIDAL COMPOUNDS

Emetine hydrochloride may be given orally, or by subcutaneous or intramuscular injection as it is too toxic for intravenous administration. It is especially valuable and almost specific for the relief of acute symptoms but does not cure more than one-third of cases even in repeated courses. Its toxic effects are severe diarrhea, myocarditis, neuritis, prostration, and death from cardiac failure. The adult dose by mouth is 0.03 gm. ($\frac{1}{2}$ grain) per day; by subcutaneous injection 0.065 gm. (1 grain) dissolved in 2 c.c. of water once a day.

Emetine bismuth iodide, a double iodide of emetine and bismuth containing about 26 per cent of emetine, is better than emetine alone for oral administration. The adult dose is 0.2 gm. (3 grains) in keratin-coated pills once a day. The emetine may produce nausea at the start of treatment and finally diarrhea, but these disappear when administration is stopped.

Vioform or iodochlorhydroxyquinoline, containing 40 per cent of iodine, is valuable for the destruction of cysts. The adult dose is 0.250 gm. (4 grains) in capsules 3 times a day.

Chiniofon or iodoxyquinolinesulphonic acid, containing about 28 per cent of iodine, is also highly recommended for the destruction of cysts. The adult dose is 3 or 4 keratin-coated pills per day each containing 0.250 gm. (4 grains). This compound is also known as yatren.

Carbazone or 4-carbaminophenylarsonic acid, containing about 28.85 per cent of arsenic, is also very useful for the destruction of cysts, but being an arsenical should not be used in the presence of hepatitis. The adult dose is 1 capsule of 0.250 gm. (4 grains) twice a day after meals. It may produce gastro-intestinal, renal, and respiratory tract irritation, neuritis, visual disturbances, etc.

Stovarsol or acetarzone is another pentavalent arsenical of value for the removal of cysts. It is dispensed in tablets carrying 0.250 gm. (4 grains), and the adult dose is $\frac{1}{2}$ or 1 tablet 3 times a day after meals. It is very well borne but must be watched for signs of arsenical intoxication in susceptible individuals. It should not be used in the presence of hepatitis.

Among other compounds may be mentioned arsphenamine, Chaparro amargoso, Simaruba, and kurchi bark, but none of these are as efficacious as those previously mentioned.

TREATMENT OF CARRIERS

The problem is the destruction of cysts, and prolonged treatment is generally required.

The author uses several compounds as follows in order to prevent or reduce toxic effects and reduce the chance of the parasites acquiring resistance to them:

1. *Chiniofon*: Three tablets of 4 grains each 3 times a day after meals for 10 days.

2. No treatment for a week.

3. *Vioform*: One capsule of 4 grains 3 times a day after meals for 10 days.

4. No treatment for a week, after which the feces are examined for cysts.

5. If still positive (as is usually the case) *carbazone* is given in dose of 4 grains in capsules twice a day or *stovarsol* in dose of 1 tablet (4 grains) 3 times a day after meals for 10 days.

6. No treatment for a week.

7. If the stools are still positive for cysts, these courses are repeated. The feces must be free of cysts upon repeated examination over a period of at least 4 months before recovery is pronounced.

8. During treatment there are no changes in diet, but alcohol is strictly forbidden.

TREATMENT OF AMEBIC ENTERITIS AND DYSENTERY

Since the amebae are deeply imbedded in the intestinal wall and in some cases in the liver, emetine hydrochloride by injection is usually the remedy of choice for the relief of acute

symptoms if there are no cardiac contraindications. For amebae free in the intestinal canal compounds by oral administration are also required. The author's method is as follows:

1. Absolute rest in bed with the use of a bed pan until the acute symptoms are relieved. A rubber sheet should be placed beneath the patient and precautions taken against the occurrence of bed sores.

2. At the outset a dose of castor oil or a saline cathartic.

3. For the first 24 hours nothing but water. Then clear liquids, rice or barley water, whey, albumin water, soups, and tea. Sugars should be avoided. Later a high caloric but low residue diet; orange or other fruit juices may be given.

4. During the first 7 to 10 days until acute symptoms are relieved: (a) Emetine hydrochloride, 1 grain each evening by subcutaneous or intramuscular injection, and emetine bismuth iodide in keratin-coated pills, 1 grain 3 times a day; (b) a daily cleansing enema of sodium bicarbonate; (c) every other night a retention enema of 200 c.c. of a warm 2 per cent solution of vioform or chiniofon (the former preferred because cheaper but the latter less likely to produce irritation) for 5 times unless in the meantime the symptoms subside.

5. During the next 7 to 10 days 2 capsules of chiniofon (each 4 grains) 3 times a day. Also 30 grains of bismuth subcarbonate every 4 to 6 hours for astringent and antiseptic effects although the bowel movements must not be reduced too greatly as this may increase systemic intoxication. Paregoric and atropine may be added for sedative effects, especially at night. Morphine may be required for severe tenesmus and restlessness. For tenesmus due to ulceration inject into the rectum a tablespoonful of 8 per cent iodoform in olive oil every 4 to 6 hours. Glucose (10 per cent) intravenously may be required for choleric cases with dehydration.

6. Vioform in 4-grain capsules 3 times a day for a week followed by carbazone in 4-grain capsules 3 times a day for 7 to 10 days. The enemas for vioform or chiniofon may be continued every other night if necessary.

7. By this alternate method toxic effects from the drugs are reduced to a minimum.

8. Repeat courses 5 and 6 as necessary until at least 3 stools are free of parasites.

9. For the next 3 months give one full day's treatment with vioform or chiniofon once a

week to prevent relapses. Add treatment for anemia.

10. Relapses are to be treated along the same lines except that a course of emetine should not be repeated more than once a month.

11. For cases with hepatic abscess emetine hydrochloride by injection should be tried before surgical intervention. If insufficient the abscess should be located by roentgen examination, aspirated, and injected with emetine. In obstinate cases, and especially if mixed infection is present, free incision and drainage are demanded.

The prognosis is good in cases treated early. The mortality is about 5 per cent. In chronic cases with relapses the prospects of complete cure are poor.

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ABSTRACT OF DISCUSSION

DANIEL F. DALEY (Kingston): Amebiasis and amebic dysentery are not synonymous terms but a phase in the entity of amebiasis. Amebiasis, as defined by Craig, is the term applied to all infections of man with *Endameba histolytica* without regard to the presence or absence of symptoms of such infection. Amebic dysentery, however, is the disease in which the patient complains of the various symptoms of intestinal irritation and in which there is very characteristic pathologic involvement. The cyst of the *Endameba histolytica*, having been swallowed by the individual, exists, as shown by Dobell, in the distal end of the small intestine. Here the quadrinucleate vegetative form subdivides into 8 motile amebae. These organisms by their cytolytic action invade the mucosa causing a gelatinous necrosis resulting in an ulcer with undermined edges. The amebae tend to remain in the submucosa in the healthy tissues along the edges of the ulcer. From here they may invade through the muscularis and serosa and perforate, or may be carried to various parts of the body through lymphatics or blood vessels and set up metastatic foci. Sooner or later, the ulcers may become secondarily infected by various micro-organisms.

Since dysentery is only one stage of amebiasis, dysenteric symptoms may be absent. In 1891 Dock demonstrated amebic ulceration in the intestines without symptoms. This was confirmed by Musgrave of the Philippines, Bartlett of Egypt, and James of Panama. Craig states that 7 individuals with liver abscesses did not suffer with dysentery and had not been out of the United States. Because of the various symptoms of intestinal irritation in amebic dysentery, cholecystitis, appendicitis, ulcerative colitis, or carcinoma of the colon and rectum may be mistaken for amebiasis. Although amebiasis is usually regarded as a tropical disease, it is really world-wide in distribution. In 1875 Loesch described the ameba from the stools of a patient in St. Petersburg, Russia. In 1887 Koch found the organism in the intestine of a patient. In the same year Kartulis isolated them from liver abscesses. Sir William Osler, in 1890, was the first to report the organism in America, and this led to the classic work

of Councilman and Lafleur, in 1891, on the pathology of amebic dysentery. In 1903 Schaudinn definitely differentiated *Endameba histolytica* from *Endameba coli*.

Sir Leonard Rogers, in 1912, established the value of emetine in curing the disease in one-third to one-half the patients with amebiasis. Walker and Sellards, in 1913, proved conclusively by feeding cysts to human volunteers that the *Endameba histolytica* is the etiologic agent in amebic dysentery.

Many studies have been made on the incidence of carriers in the general population in various parts of the United States. Among these are the investigations of Sistrunk, Giffin, Sanford and Brown at the Mayo Clinic, Andrew and Paulson in Baltimore, Kofoed and Swezy in California, Meleney in rural Tennessee and Kentucky, Craig in the study of professional men in various parts of the United States, and others too numerous to tabulate. These combined studies show that the incidence varies from 5 to 10 per cent, being higher in rural than urban districts. Considering the

population of the United States as 120,000,000, this would mean that from 6,000,000 to 12,000,000 persons in our country are harboring the parasite. Even if the incidence is as low as 1 per cent, it would still leave more than 1,000,000 residents as a threat to the health of people in this country.

In spite of all these elaborate studies and publications, the medical profession remained deaf to the threat of the seriousness of the situation in this country. The method of spread of the organism has as its basis the old question of preventing the excreta of one human being from finding its way into the food and drink of another. Apparently civilization has not progressed to the point at which this can be prevented. The explosive outbreak in Chicago a year ago, resulting in more than 800 cases throughout the country with 354 in Chicago, 117 in New York, 25 in Boston, and 19 in Pennsylvania finally awakened the medical profession to this public menace. It is hoped that this costly lesson has not been in vain.

FRACTURES OF BOTH BONES OF THE FOREARM*

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During the past 2 years 407 fracture cases have been treated at the Wilkes-Barre General Hospital, divided as follows: Fractures about the elbow, 71; fractures of the shaft, 149; fractures about the wrist, 187. The vast majority of the cases occurred between March and November. Evidently this is due to the desire for outdoor exercises and sports.

Fractures about the shaft are almost as frequent as fractures about the wrist. A fall was the cause given in the vast majority of these cases. Automobile accidents claim very few.

The shaft of the ulna is thick and strong in its upper portion and gradually diminishes in size from above downward to end in a small round head and the styloid process. On its anterior and posterior surfaces are extensive muscular attachments. The shaft is slightly convex posteriorly, and its posterior border is subcutaneous throughout its entire length. It is easily palpated and in muscular patients produces a furrow in the contour of the forearm which is clearly visible.

The radius is small above and gradually increases in size from above downward to end in a broad cancellous lower extremity, which forms the wrist joint. The shaft is bowed gently outward. It is hard and compact bone in the upper portion. Much of the shaft is covered by muscle attachment but the posterior surface is covered by tendons in the lower half only, and

the outer border is subcutaneous and easily palpated. About 2 cm. below the head, there is a prominent tubercle on the inner shaft to which the biceps tendon is attached.

The space between the radius and ulna is bridged by strong interosseous membrane, which divides the forearm into anterior and posterior compartments. It extends from the inner border of the radius to the outer border of the ulna and completely closes the space between the bones except for a small triangular area at the upper end. Its fibers are so arranged that it remains tense in all positions of rotation. The slope of the fibers serves to transmit force received by the radius from below to the ulna. Thus force from the hand is received directly by the lower end of the radius and is then distributed by the interosseous membrane to the shaft of the ulna and by both bones to the elbow. The upper end of the interosseous membrane is reinforced by the oblique ligament and helps to resist traction forces tending to pull the radius down from the ulna and capitellum and also to limit extreme supination.

In rotation of the forearm the ulna remains stationary and the radius revolves about an axis which passes through the head of the radius and styloid process of the ulna and the ring finger. In supination the bones are widely separated and approximately parallel. In midposition, between pronation and supination, the bones are parallel and the radius lies above the ulna. In pronation the shaft of the radius cross-

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es the shaft of the ulna about the junction of the middle and upper thirds. The curve in the radius is necessary for the movement of pronation as otherwise the bones would impinge.

The muscles of the forearm are divided into the flexors and pronators on the anterior surface and the extensors and supinators on the posterior surface.

The flexors are divided into the superficial and deep groups, the superficial group arising from the internal condyle of the humerus, and the deep group from the anterior surface of the radius, ulna, and interosseous membrane. The superficial and deep groups are supplied by the median nerve but the flexor carpi ulnaries and one-half of the flexor profundus are supplied by the ulna nerve.

There are 2 pronators: the pronator radii teres arises by 2 heads, the first from the internal condyle of the humerus and the second from the coronoid process of the ulna. These blend to form a muscle which passes obliquely downward and outward to end in a flat tendon, which is inserted into the middle of the outer surface of the radius.

The pronator quadratus is a flat muscle which passes transversely across the lower fourth of the forearm between anterior surfaces of the radius and ulna.

The extensors of the wrist and fingers arise from the external condyle of the humerus and from the outer and posterior surfaces of the ulna and radius and interosseous membrane. They are supplied by the posterior branch of the radial nerve.

The supinators of the forearm include the biceps, supinator longus, brachioradialis, and the supinator brevis. The biceps is inserted in the bicipital tubercle on the inner surface of the radius. Its function is to flex the forearm and, because of the location of its insertion, it also acts as a strong supinator of the forearm.

The supinator longus arises from the external supercondyloid ridge of the humerus and passes downward along the outer side of the forearm to the styloid process of the radius. Its action is that of a weak flexor muscle.

The supinator brevis arises posteriorly from the lateral condyle, the external, lateral, and orbicular ligaments, and from the upper posterior surface of the ulna to spread outward and downward as a flat triangular muscle sheet, which winds about the neck and shaft of the radius to be inserted into its posterior lateral, and anterior surface downward as far as its middle. It is supplied by a branch of the radial nerve.

The blood vessels of the forearm are chiefly the radial and ulnar arteries which lie close to the respective bones.

The nerves are chiefly median, ulnar, and sensory branches of the radial nerve. They lie in the anterior compartment of the arm.

Fractures of the shaft may occur in any portion and may be either bone or both bones depending on the direction of the force producing the fracture. On account of the exposed portion most fractures occur in the middle or lower thirds. When both bones are broken, the fractures are usually in the same level. They may be transverse, oblique, or comminuted. When they occur in the lower third, they are frequently compound. In children these fractures are usually incomplete, the bones bending rather than breaking and thus tending to greenstick fractures.

The displacement depends mostly on the muscular contraction and consequently varies with the level of the fracture. In considering displacements of fragments of fractures in the radius, it is necessary to divide them into 2 groups: Those above the pronator radii teres and those below the insertion of this muscle. In the fractured ulna there is little or no overlapping of the ends of the fragments.

In fractures above the pronator radii teres, that is, in the upper half of the shaft and below the biceps tubercle, the upper fragment is drawn upward (forward) and rotated outward by the biceps. The outward rotation is due, in part, to the supinator brevis in fractures near the middle of the shaft and below its insertion. The lower fragment is rotated inward by the pronator radii teres and pronator quadratus toward the ulna shaft by the above 2 muscles assisted by the supinator longus. The pronator teres also aids in bringing the lower fragments forward.

In fractures below the insertion of the pronator radii teres and above the pronator quadratus, that is, in the lower half of the shaft, the upper fragment is displaced forward by the pronator teres and the flexing action of the biceps. The pull in the supination of the biceps and supinator brevis is more or less counteracted by the pronator radii teres so that the upper fragment tends to remain in neutral position as regards rotation.

In all fractures of the shaft the interosseous membrane prevents abnormal separation of the ulna radius.

Examination reveals immediate disability, with pain on motion, and the forearm is carried in flexion with the hand pronated.

In the lower half of the bone there is displacement at the site of the fracture which is easily palpated. Swelling and tenderness soon follow the accident. Crepitation may or may not be obtained as the ends of the fragments may be widely separated or impacted.

A pathognomonic sign of fracture of the upper half of the radius is demonstrated by the head not rotating with the distal portion of the radius. In impacted fractures rotation at the wrist causes pain. Diagnosis is confirmed by a roentgenogram.

Reduction is accomplished under anesthesia with the aid of the fluoroscope and manipulation. The arm is dressed in full supination with anterior superior splint.

Fractures of the shaft of the ulna alone are the result of direct violence. They may be simple, comminuted, or compound.

In using the arm in defense, it is almost always in pronation which exposes the ulna to direct violence. This fracture, when it occurs in the upper third or half, frequently is accompanied by dislocation of the head of the radius. This has been experienced with 4 cases in my own practice. It should always be considered especially in the roentgenogram. In simple fractures there is very little displacement. When force is sufficient and exerted in the lower half of the ulna, the fracture is often compound.

Diagnosis of fracture of the ulna is easily made by history of the injury, pain, crepitation and swelling, and slight deformity with localized tenderness.

This reduction is frequently accomplished by gentle manipulation with or without anesthesia and the fluoroscope. If compound, it may be necessary to fix the fragments with sutures, either of wire or strong gut. The bone is too small in caliber to be plated.

In fractures of the upper half, the arm is dressed in full supination with anterior superior right angle splint and straight posterior splint on the forearm.

Fractures of both bones of the forearm are usually due to falls on the outstretched hand, having the arm caught lengthwise between 2 opposing or approaching forces, or direct violence applied at the seat of the fracture.

Fractures due to direct violence usually occur at the same level whereas those due to indirect violence may occur at different levels. The ulna fracture is usually at a lower level than the radius.

In patients under age 18, fractures may be of the greenstick variety. If seen early, they can

be easily reduced by gentle, firm pressure without anesthesia. They are splinted for 10 days or 2 weeks, the length of time being determined by examination.

Fractures, when complete, may be transverse, comminuted, or oblique. The fractured surfaces may be serrated in one bone, and smooth or oblique in the other. The displacement may be laterally, but usually there is a shortening due to muscle contraction; hence an overriding of the fragments. Diagnosis is confirmed by deformity, pain, tenderness at the site of the fracture, excessive mobility, and crepitation.

If the arm is muscular and heavy, traction by hanging the arm to a Balkan frame or suspending in some such manner for 24 hours to tire the muscle control will permit manipulation and help in reduction. This type of fracture is reduced under anesthesia and with the aid of the fluoroscope. Traction is first applied; then by manipulation in the direction in which the fracture is produced the ulna is reduced if possible. This reproduces the normal length. With the ulna reduced, it is used as a fulcrum to reduce the radius.

After reduction, the arm is placed on a right angle internal splint with proper padding and an external straight splint. It should be carefully inspected on the following day to determine the condition of the soft parts following manipulation and application of dressings. If the swelling is very marked, the dressing applied may have become too tight causing pressure symptoms resulting in interference with circulation and sensation. This can be quickly relieved before any damage has been done and without disturbing the fracture.

It has been my custom to remove the superficial dressings about the fourth day, bathe the parts exposed with alcohol, give gentle massage to the soft parts in the neighborhood of the fracture, and have the patient exercise the fingers. At the end of the first week, all splints are removed and passive motion is given to the wrist and elbow joints in addition to the above treatment. At the end of 2 weeks, the right angle splint is replaced by anterior and posterior splints extending to the elbow. The patient is instructed to move the arm at the elbow and exercise the fingers. If good union exists at the end of 4 weeks, all splints are removed; if not, they are replaced for another week. When splints are removed, the patient usually has excellent motion in the elbow and wrist joints with fair motion in pronation and supination.

The most frequent fracture of the lower end of the radius is the Colles' fracture. It was first described by Colles in 1814 as a transverse fracture of the radius occurring $1\frac{1}{2}$ inches above the articular surface. It is now described as a triangular fracture of the end of the radius with the apex extending to the articular surface and the base, which is from three-fourths of an inch to 1 inch in width, extending upward to the dorsal surface. The distal fragment is forced upward, backward, and outward, or upward, backward, and inward on the dorsum of the arm. It is frequently comminuted or is commonly driven into the proximal end of the radius, so-called impacted fracture. If the displacement is extreme, it will be accompanied by a rupture of the articular fibrocartilage and a tearing-off of the ulnar-styloid process and the ulnoradial ligaments.

There is usually a history of falling on the hand, followed by pain and disability with tenderness and swelling in the region of the wrist. The typical silver-fork deformity with the hand in pronation is seen when viewed from the side. If the swelling is pronounced, the silver-fork deformity may not be very visible.

The degree of disability varies in different cases. There may be fair motion in the fingers and wrist, but there is usually very little power in the hand. Limitation of extension is greater than flexion. The patient is unable and unwilling to rotate the hand. Again, there may be very little displacement, in which case the diagnosis must be confirmed by roentgen ray.

There are many variations of the typical fracture, such as rotation of the lower fragment with no displacement of its upper surface. Another is the abduction type, with little or no backward displacement and absence of the silver-fork deformity but marked radial deviation of the hand. This is the result of crushing of the radial side of the bone. The sharp edge of the lower fragment is palpable on the lateral border.

The Barton fracture is a fracture of the posterior articular margin of the radius. It is produced when the patient falls on the hand in pronation with the arm at an acute angle. The force tends to dislocate the wrist backward, causing the radius to give way.

Smith's fracture occurs when the force is applied to the back of the hand in the flexed position causing a transverse fracture of the cancellous portion of the radius with displacement of the distal fragment on the anterior surface of the forearm. This fracture is rare. The deformity is opposite that of Colles' and

has been called the gardener's spade deformity. The distal end of the approximal fragment is found on the dorsum of the wrist. The volar prominence is at a lower level than in Colles', and the depression is below the end of the proximal fragment. The head of the ulna is unusually prominent on the dorsum of the wrist.

The styloid processes of the ulna and radius may fracture when the force applied is not sufficient to cause a fracture of the head of the radius or when it is not directed against the head of the radius.

Reduction of fractures about the wrist can be accomplished many times without general anesthesia if seen early. Ethyl chloride, nitrous oxide, or ether are preferred in order to obtain full relaxation and allow free manipulation. The fragments are freely mobilized either by traction or by increasing the deformity. By traction and manipulation, the fragments are brought as nearly as possible into proper apposition. If properly reduced, the fragments will remain in place, the deformity will disappear, and pressure upward will tend to produce impaction. After reduction, the arm is splinted. The Bond, metal, plaster, and straight splints are used.

Preference is given to the straight wooden splint, properly padded and long enough to reach from the web of the fingers to almost the elbow joint. Pads are applied over the distal fragment and under the distal end of the proximal fragment. The splint is fastened to the arm and hand by adhesive plaster and bandage, firm enough to prevent motion in the wrist joint. The patient is instructed to move the fingers freely but not to grasp anything with them. The splinted arm is placed in a sling in pronation. If it is comfortable and there is no swelling or pressure symptoms, the dressings are allowed to remain in place for 3 or 4 days. They are then removed, but the arm is not taken from the splint. At the end of a week, all splints are removed and passive motion begun. At the end of 2 weeks, the splints are shortened and moved back from the web of the fingers to the thenar eminences, and fastened to the forearm so that the patient may have motion in the hand and some motion in the wrist. Splints are removed in 3 to 4 weeks depending upon the firmness of the union. Active motion and massage are carried on, and the patient is urged to use the arm and hand. Delayed motion invites tendosynovitis and arthrosynovitis, both of which require prolonged physical therapy.

In the old and feeble patient, it is better to accept some deformity in order to get good function, as manipulation might be very detrimental to the patient.

In old and unreducible fractures, open reduction may be necessary. This is accomplished through vertical incision on the dorsal surface through the skin; the muscles and tendon are retracted from over the site of the fracture. A chisel is forced through the line of fracture freeing the fragments. Then, by traction and leverage, the fracture is reduced. Perfect restoration is usually impossible. The wound is closed with interrupted catgut sutures and the skin with nonabsorbable sutures. The arm is splinted as in the nonoperated reduction. I have had very few cases which required open reduction.

The aim has been to obtain the best anatomic and functional results with the least arthrosynovitis and tendosynovitis.

115 South Franklin Street.

ABSTRACT OF DISCUSSION

ANATOLE DESJARDINS (Wilkes-Barre): Dr. Howorth emphasized the anatomic structures of the forearm, which is important because very often attention is concentrated on the fracture and not enough is given to

the soft parts. In the case of compound fractures, more lives would be saved if tetanus antitoxin were used routinely. Splints made of old lumber or splints that have been used before should never be applied to immobilize compound fractures unless they have been carefully sterilized. Another hazard to these fractures is the roentgen-ray table. It may be well polished but not aseptic. The part should be well protected with sterile material before a roentgen-ray examination is attempted.

Fractures of the forearm are frequently reduced by forceful traction with the aid of the fluoroscope. The surgeon sometimes does the forceful traction himself. This is unnecessary, because traction can be made by the assistants; the surgeon should save the delicate touch of his fingers to manipulate the fragments in position after the muscles have been relaxed.

It occasionally happens that anterior dislocations of the head of the radius are diagnosed later. If the condition is not recognized early, the reduction becomes increasingly difficult. An open reduction may be necessary. When such a dislocation resists an open reduction, the head of the radius is usually removed. The reason that these anterior dislocations are not always diagnosed early is because they are less painful than the posterior type, they do not produce any marked deformity, and a considerable amount of free motion remains in the joint.

Dr. Howorth stated that he did not approve of the treatment of fractures with bone plates. Moorehead states that the bones of the forearm are too small to allow the application of bone plates. However, some cases have been successfully treated with them.

POSTVACCINAL ENCEPHALITIS IN SIBLINGS*

Case Reports

JOHN D. STURGEON, JR., M.D., UNIONTOWN, PA.

In reviewing the literature on postvaccinal encephalitis, one is particularly impressed by the large number of articles and case reports abstracted from the foreign literature and the relatively few reports in the literature of this country.

Simon Flexner quoted Doerr as estimating that there had been about 400 case reports in the preceding 5 years on postvaccinal encephalitis, yet in 1933 Samuel Newman stated that his case made the seventy-fourth reported in this country.

In Holland the ratio from 1923 to 1927 was 1 case for each 2800 vaccinations. In England the ratio was 1 in 48,000 vaccinations. A commission in Germany gave a report covering a 4-year period, in which 102 cases were reported. This gave a ratio of 19 cases for each 1,000,000 first vaccinations and 1 per 1,000,000 in revaccinated persons.

As to the number of reports of postvaccinal encephalitis occurring in siblings, Henry R. Viets and Shield Warren report the cases of a brother, age 6, and a sister, age 8, both vaccinated the same day and both becoming ill 11 days later with central nervous system symptoms.

In a communication from the United States Public Health Service the following references to postvaccinal encephalitis in siblings were given:

J. A. Loyster, in a private publication in 1914 at Cazenovia, N. Y., reported an instance of 3 siblings, ages 13, 10½, and 6, 2 being vaccinated on the same day and the third 2 weeks later.

The 3 became ill exactly 10 days after vaccination with what was supposed to be poliomyelitis; one died and 2 recovered. These may have been postvaccinal encephalitis, judging mainly from the incubation period. The British Ministry of Health, in their report on vaccina-

* Read before the Section on Pediatrics of The Medical Society of the State of Pennsylvania, Wilkes-Barre Session, Oct. 2, 1934.

tion, November, 1930, note 4 instances in which 2 cases of postvaccinal encephalitis occurred in the same family. F. Luksch in 1928 reported 2 cases in one family from a total of 4 vaccinated. P. H. Kramer in 1928 reported 2 cases in one family within a period of 4 years.

These case reports total 2 instances of postvaccinal encephalitis in siblings with 5 children affected in our country, and 6 instances with 12 children affected in Europe.

The family history of the 2 cases being reported is interesting, especially the vaccination histories. The father is living and well and never has been vaccinated. Five of his brothers and sisters were successfully vaccinated, and one sister like himself never was vaccinated. The mother is living and well and was vaccinated 3 times, but never successfully. Her brothers and sisters were successfully vaccinated. There were 6 children in the family. One girl, age 14, and a boy, age 12, were successfully vaccinated. The next 2 children are the ones being reported. The 2 youngest children have not been vaccinated, and according to the father never will be.

CASE 1.—L. Y., male, age 7, the fourth child in the family, always had been well, had not had any of the childhood diseases, and had had no operations.

He was vaccinated on Sept. 3, 1932, and was well until Sept. 18, 15 days after vaccination, when he complained of a slight headache in the evening. The next morning he became stuporous. He did not vomit, and there were no signs of paralysis or weakness.

When first seen after admission to the hospital on Sept. 21 (18 days after vaccination) he was well nourished, but semicomatose, lying on his side with the head retracted and the legs drawn up. He became very irritable at times, tossed about, and cried out frequently. The eyes had a distant stare. The temperature was 100° F., respiration 18, and pulse 100. The head was retracted and there was some rigidity of the neck. The pupils were equal and reacted to light. The ears and nostrils were negative, the throat congested. There was no rigidity of the jaws. The lips showed a herpes labialis. The neck, lungs, heart, and abdomen were normal. There was no abdominal rigidity. The abdominal reflex was absent. An examination of the extremities showed a normal healing vaccination on the left arm, the biceps reflex absent, the patellar reflexes normal, Kernig's reflex negative, Babinski's sign negative, and pseudoclonus present in the ankle.

Spinal puncture was done with the following findings: Appearance, clear; pressure, 90 mm., with normal rise on both right and left jugular compression; white cells, 11; red cells, 3; globulin, negative; sugar, 45 mg. per 100 mil.; gum mastic, culture, and Wassermann tests all negative. The urinalysis was normal. The blood count showed: Hemoglobin, 81 per cent; erythrocytes, 4,500,000; leukocytes, 6400; color index, 90; filamented polymorphonuclear cells, 42; nonfilamented polymorphonuclear cells, 18; myeloblasts, 2; large mononuclear cells, 13; small mononuclear cells, 25; total granular count, 62; and total nonfilamented count, 20.

On Sept. 22, 19 days after vaccination, the patient was much improved following spinal puncture. He voided involuntarily and was still not clear mentally. The temperature dropped to normal. There was no rigidity of the neck. The patellar reflex was normal. He was able to swallow liquids well.

On Sept. 23, 20 days after vaccination, the mind became clearer. He lay normally in bed and coordinated fairly well. The abdominal reflex was still absent, but all other reflexes were normal. He was able to swallow semisolid food.

On Sept. 27, 24 days after vaccination and 9 days after the onset of symptoms, he was discharged, apparently normal.

Due to the marked improvement following the spinal puncture, no serum or other therapy was used.

In August, 1934, there were no abnormal neurologic findings. He appeared to be physically normal but mentally retarded. The mother stated that the mentality was below normal before the vaccination.

CASE 2.—Two years previous to the occurrence of case 1, a sister, H. Y., age 7, was admitted to the hospital with a history and clinical course very suggestive of postvaccinal encephalitis.

The past history was essentially negative. At age 1½, she was ill with central nervous system symptoms. According to the parents these symptoms were attributed to worms and were relieved by the removal of the worms. She had had measles and mumps, but otherwise had been well.

This patient was vaccinated on Aug. 6, 1930, on the left arm. On Aug. 17, 11 days after vaccination, she complained of severe headache. That night she voided involuntarily, and the next morning appeared to be in a stupor and was unable to swallow.

On Aug. 20, 1930, 14 days after vaccination, she was admitted to the Uniontown Hospital unconscious. She appeared to be well nourished but somewhat anemic. The temperature was 100° F., respirations 28, pulse 96. The face and chest were flushed. There was no cyanosis. The ears were negative. The pupils were regular and equal; they reacted to light but dilated again. The eyes had a glassy appearance. The tongue was coated, and the teeth were in poor condition. There was some rigidity of the jaw muscles and slight rigidity of the neck. The respirations were equal but shallow, the lungs clear, and the heart sounds clear but rapid. The abdomen was negative with no rigidity, and no enlargement of the liver or spleen. Vaginal discharge was present. On the left arm there was a normal healing vaccination.

On Aug. 21, 15 days after vaccination, the temperature was 104½° F., respirations 36, pulse 120. The patient was unconscious, but at times there were indications of rousing. She was still unable to swallow. The arms were spastic, and there was some rigidity of the neck.

An examination of the cerebrospinal fluid showed the following findings: Appearance, normal; pressure, 120, with normal rise on jugular compression; cell count, 2; globulin, none; sugar, 120 mg. per 100 mil.; and Wassermann test, negative. A catheterized specimen of urine was normal. The blood count showed: Hemoglobin, 64; red cells, 4,600,000; leukocytes, 13,000; color index, 69; polymorphonuclear neutrophils, 79; small mononuclear cells, 9; large mononuclear cells, 12.

A dark brown, blood-streaked stool was passed, the

cultures of which were negative for the typhoid-dysentery group.

The vaginal smear showed a few gram-positive cocci but no gram-negative intracellular diplococci.

On Aug. 22, 16 days after vaccination, the patellar reflex diminished. The child was rigid and cyanotic, with pupils dilated. She was unable to swallow. The throat seemed to be filled with mucus, and some blood was found upon examining the throat. The nurse reported that red blotches appeared on the face and disappeared in a few minutes.

An examination of the spinal fluid showed: Appearance, cloudy, due to presence of blood; pressure, subnormal; cell count, 14; globulin, 4+; sugar, 128 mg. per 100 mil.; smear and culture, negative.

On Aug. 23, 17 days after vaccination, there was no improvement. The patellar reflex was absent, the pulse rapid, irregular, and of poor volume. The pulse became more regular following the injection of 10 per cent glucose in normal saline intravenously and subcutaneously, and with the use of caffeine sodium benzoate, adrenalin, and tincture of digitalis.

On Aug. 24 the child died, 18 days after vaccination and 7 days after onset of symptoms.

Necropsy permission was obtained to examine the chest and abdomen only. The findings were without significant changes.

I am indebted to Dr. George Robinson, upon whose service the child was admitted, for permission to report this case.

COMMENTS

Postvaccinal encephalitis was first diagnosed and described in 1924.

Clinically it runs a hyperacute course with a mortality rate of 35 to 50 per cent. The course is rapid, either with death or marked improvement occurring within 2 weeks. Recovery, when it does occur, tends to be complete.

Flexner states that in England two-thirds of the vaccinations were performed during the first year of life and yielded 9.8 per cent of the cases of postvaccinal encephalitis. The remaining one-third were vaccinated at school age and yielded 85 per cent of the cases. No case was noted under age 6 months, and only 1 case was reported at age 6 months.

In 1932 Charles Armstrong gave some observations and experimental data which support the following suggestions:

1. A suitable vaccination technic should be employed by making a small single superficial insertion, never more than one-eighth inch in the greatest diameter, which employs no routine dressing.

2. Since postvaccinal encephalitis is rarely encountered under age one, infancy is the best time for performing primary vaccinations.

3. Diphtheria toxoid, an inanimate antigen, so far has not been responsible for central nervous system complications; yet it may stimulate the defense mechanism and thus prepare the child

for inoculation with vaccine virus, a living antigen capable of infinite multiplication.

The better routine probably would be to give the first dose of diphtheria toxoid at age 6 months, followed by vaccination against smallpox 3 or 4 weeks after the last toxoid injection.

22 North Gallatin Avenue.

IF THREATENED WITH SUIT

If you are threatened with suit for alleged malpractice you should communicate at once with the secretary of your county society, the councilor for your district, or the secretary of the State Society *before consulting an attorney.*

The State Society will not undertake the defense of any member unless his application is made *within 7 days* after summons has been served by the court.

ROENTGEN-RAY RELEASE BLANKS

Members are reminded that the secretary of each county society, as well as the secretary of the State Society, is prepared to forward, in response to requests, a legal release blank to be used when treating fractures, dislocations, or foreign-body cases in which it is impossible for any reason to obtain adequate roentgen-ray pictures to assist in correct diagnosis and treatment. Any time within 2 years of your treatment of such a case you may be sued for alleged malpractice. Roentgen-ray records in support of your diagnosis and treatment may prove invaluable.

FAMILY CARE OF MENTAL PATIENTS

Much interest is being manifested in the movement to introduce into this country a system of family care of mental patients similar to that used successfully for many years in Belgium and France. A law passed by the last New York State Legislature provides an item of \$20,000 for each of the state hospitals and state schools under the jurisdiction of the Department of Mental Hygiene for use in placing suitable patients in family care.

At the recent meeting of the American Psychiatric Association in Washington, Horatio M. Pollock, Ph.D., director of mental hygiene statistics, presented a paper, "Practical Considerations Relating to the Family Care of Mental Patients," in which he discussed the various systems of family care now in use and advocated the introduction into this country of a community system somewhat after the pattern of the one in operation at Gheel, Belgium. The matter was favorably discussed by representatives from different parts of the country, and it seems probable that efforts to introduce family care will be made in several states in the near future.

In New York State a promising beginning has been made by the Newark State School at the village of Walworth. Here about 40 patients are being cared for in families at the rate of \$4 per week. The residents of the village, the patients, their relatives, and the institution authorities are all highly pleased with the results of this experiment which is now in its third year.

It is believed that if family care could be widely introduced it would obviate the necessity of building new institutions and that the net saving to the state would be very large.—*Health News*, July 1, 1935.



ALEXANDER HUNTER COLWELL, M.D.

(CAT.)

Alexander Hunter Colwell

President-Elect

ALEXANDER HUNTER COLWELL, eighty-sixth president of The Medical Society of the State of Pennsylvania, was born in Pittsburgh, October 16, 1887, the son of the late William Wilson Colwell and Sarah Ellen Hunter. He received his preliminary education in the Pittsburgh public schools and Pittsburgh Academy.

He was graduated from the Medical Department of the University of Pittsburgh in 1914, serving a year as intern at the Western Pennsylvania Hospital. He also served 2 months as resident physician in the Tuberculosis League Hospital. On October 1, 1915, he began a year's residency at the St. Francis Hospital, Pittsburgh, as a Mellon Fellow in Research in Internal Medicine. This year was devoted especially to the operation of the electrocardiograph and the study of cardiovascular diseases.

On completion of the latter he entered into general practice in Pittsburgh in which he remained for 10 months, when he enlisted in the Medical Corps of the United States Army and was attached to Base Hospital No. 27 in August, 1917. He learned his "squads right," *etc.*, at the training camp in Allentown, Pa., and sailed in September, 1917, for France. He served 18 months in France with a Base Hospital, being assigned to internal medicine. Returning from France he resumed practice in April, 1918, since which time he has practiced continuously in Pittsburgh. He is associate professor of medicine in the Medical School of the University of Pittsburgh. In addition to his State Society he is a member of the Allegheny County Medical Society and a Fellow of the American Medical Association; a member of the Biological Society of the University of Pittsburgh; and of the Pittsburgh Academy of Medicine; also a member of the Alpha Omega Alpha Fraternity.

Dr. Colwell has been very active in his medical organizations, and a contributor to the medical literature. He is blessed with a quick intellect and is endowed with an indomitable character, an unswerving feeling of justice, a keen sense of humor, a cheerful philosophy, and an innate kindness.

Dr. Colwell was married to Miss Nancy Ann Martin of Pittsburgh, October 10, 1916, and has 2 children, Alexander H. Colwell, Jr., age 18, and Nancy Ann Colwell, age 13.

THE EIGHTY-FIFTH ANNUAL SESSION

Host to 100 major conventions a year, Harrisburg and Dauphin County are drawing on their best talents to make the eighty-fifth annual meeting of The Medical Society of the State of Pennsylvania a complete success, Sept. 30 to Oct. 3, 1935.

With the State Society's headquarters in Harrisburg and a beautiful new home as an attraction, it is unusually fitting that Pennsylvania's medical profession should assemble in its Capital City for its annual meeting.

In convening in Harrisburg, the State Society is making it possible for the greatest number of

its members to attend the maximum number of sessions at a minimum expenditure of time and money. An increasing number of professional, fraternal, and business organizations are meeting regularly and frequently in Harrisburg because it is Pennsylvania's most convenient convention city.

The Dauphin County Medical Society and the Harrisburg Academy of Medicine are availing themselves of the willing coöperation of all agencies in Harrisburg in developing plans for entertaining the State Society. Assisting is the Convention and Visitors' Bureau of the Harrisburg Chamber of Commerce, which functions the year round in serving the hundreds of groups that assemble in Harrisburg for all kinds of meetings and events.

PENNSYLVANIA'S CAPITAL CITY

Centuries before John Harris, the city's founder, ever saw the waters of the Susquehanna, the place now known as Harrisburg was a center of paths. Before white men invaded Penn's Woods, Indian runners and war parties used the valleys leading down to the river at Harrisburg as trails; they forded the Susquehanna on the ledge of rocks along which the founder operated his ferry 150 years ago. Throughout the years Harrisburg has developed as a great center of transportation.

When the march of civilization pushed the Indian westward and trappers no longer used the forest trails converging at Harrisburg, the wagon traffic of the pioneer, exemplified by the Conestoga wagon, flowed through Harrisburg. In 1736 the court at Lancaster authorized the first road to Harrisburg from near Downingtown, the old King's Highway, and 20 years later Harris Ferry was made a depot for supplies and the place of conferences between officials and Indian chiefs in the French and Indian War.

With the trek of settlers larger every year, John Harris built a stone mansion in 1766 as a home and stopping place for travelers and messengers. In 1775 the town figured prominently again in military operations as a gathering place for supplies and men for Washington's armies.

The growth of the city as a transportation center was marked again in 1780 when grain and produce were brought to Harris Ferry in barges from the hinterland of the



State Capitol

Juniata and Susquehanna Rivers. Five years later Harris laid out the town, from the first the county seat of Dauphin, a place where roads met and stage coaches brought people and letters for distribution to distant points.

The first railroad train came to Harrisburg in 1836. Then came the development of the mails, the telegraph, and the telephone, all helping to expand Harrisburg as a center of communication. With the advent of the automobile, the early Indian trails again assumed importance and the 7 principal highways leading into Harrisburg became modern arteries of transportation.

When America took to wings, Harrisburg prepared to maintain its transportation superiority and in 1927 the Harrisburg Chamber of Commerce initiated the development of the Harrisburg Airport. Ever since the city's founder established his ferry and set up a trading post, people and commodities have been streaming in and out of Harrisburg because it is easy to reach from any point on the compass—by rail, by road, and by air. A population of 80,339 was reported for Harrisburg by the last federal census, and the official metropolitan district of the city numbers 161,672 inhabitants.

Harrisburg's industrial growth and importance as a distribution center is due to rail facilities and improved highways. The city itself is a concentration point for the Pennsylvania Railroad, and in the contiguous environs are the large freight classification yards of the Pennsylvania System and the Reading Company. Improved highways from all directions converge at Harrisburg.

A city of diversified industries, Harrisburg numbers among its chief products steel, pipe and pipe shapes, hosiery, shoes, machinery, confectionery, printing and publications, food products, and needle work commodities.

CIVIC DEVELOPMENT

Parks are among the physical civic developments which have made the

Capital City world-famous, for it has 1100 acres of them, more than any city in the state except



Gateways from the West and South to Harrisburg

Indian Echo Cave, Hummelstown, near Harrisburg, the largest in the State

H

World War Memorial Bridge at Harrisburg

PHOTO—STATE DEPT. HIGHWAYS



Pennsylvania's \$13,000,000 Capitol at Harrisburg

PHOTO PENNA. STATE DEPT. AGRICULTURE

Philadelphia and Pittsburgh. Encircling the city, the park system provides virtually every kind of recreation. At Reservoir Park are picnic

grounds, free tennis courts, and public golf links. Wildwood and Cameron Extension are rustic sylvan spots with streams and a lake, and are traversed by winding roadways.

Erected at a cost of \$13,000,000 the Capitol is considered one of the finest monumental buildings in the world. Materials and furnishings were brought from every country on the globe, and famous architects and sculptors devoted their talent to its beautification. Artists, writers, and travelers from every part of the world have given unstinted praise to this imposing and beautiful Capitol of Pennsylvania.

The building is 520 feet long, 254 feet wide, and 272 feet high. It covers 2 acres of ground and is one-half mile in circumference. It is larger than Saint Paul's Cathedral; it is longer than Westminster Abbey. The building contains 475 rooms. The dome, which has been called "the heart of the Capitol," weighs 52,000,000 pounds. The exterior is of Vermont granite and rises 5 stories above the main floor, surmounted by the magnificent dome of fine proportion, which is strongly reminiscent of the dome of St. Peter's at Rome. The interior is sumptuously finished in marble, mahogany, bronze, and tiling and adorned with appropriate decorations and mural paintings by artists of great reputation. The design of the exterior is in classic style, as adapted for the purposes of a building of this character by the architects of the Renaissance. The influence of the Greek Corinthian order is noticeable in the columns and mouldings, while the arrangement and form of the windows follow those employed by the builders of the Italian Renaissance.

Flanked by the State Museum and government office buildings, the Capitol is located in the heart of the city and is surrounded by a beautiful park, the home of hundreds of tame pigeons and squirrels.

To the east of the Capitol a beautiful memorial park has been erected, from the west end of which begins the magnificent viaduct built by Pennsylvania, in coöperation with the city of Harrisburg, to honor the men and women from the Keystone State who served in the World War. Dedicated in 1930, this memorial viaduct is a half mile long. At the park entrance are pylons 130 feet high ornamented at their tops with huge eagles weighing 300 tons each.

Included in the State Capitol development is the new Education Building, upon the walls of which has been engraved the history of the rise and fall of civilizations. The record of man's ways of labor has been wrought upon the main



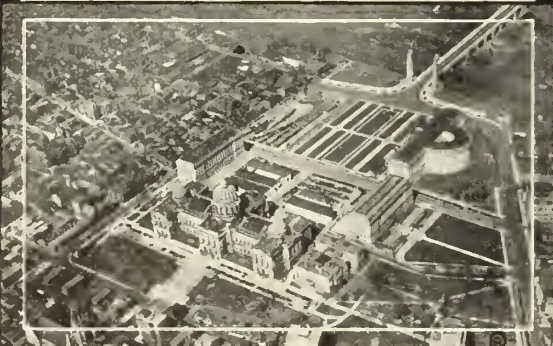
State South Office Building at Harrisburg



Marble Stairway in Pennsylvania's Capitol



*Thousands of Unique Displays Fill
State Museum*



Capitol Building at Harrisburg

sculptured bronze doors. In the west end of the building is the State Library, a room of noble proportions. Reaching 4 stories high are 25 miles of shelves bearing thousands of books. At the opposite end of the structure is the Law Library. Part of the Education Building, but detached from the portion housing government offices, is the magnificent Forum. Considered to be the most beautiful auditorium in America, this room's decorations depict the progress of mankind and represent the overwhelming majesty of the heavens. The history of civilization is shown by maps and tablets 20 feet high covering the entire semicircular wall. What man has been able to make of the celestial bodies has been brought within the decorative scheme that covers the ceiling, which consists of a representation of the sky. By projection the relative positions of the stars have been accurately ascertained by astronomers, and they are presented in 4 magnitudes, all shown in the proper relationship to the celestial bodies to which they belong. More than 1000 stars are thus shown in their proper positions and 365 of them are crystal glass, subject to electrical illumination in graded brilliancy. The various constellations and the entire zodiacal band are brilliantly drawn on an enormous scale, Virgo being nearly 50 feet long. The 3 great theories of the solar system are represented in an ingenious central sunburst.

Following the arrangement of the ancient Greek amphitheater, 3 banks of 1880 seats provide free and open discussion from all parts of the room. The tiers rise to the base of a colonnade, back of which columns is a wide promenade whose rear walls contain the painted geographic representations of all the lands and waters of the earth. Seven great pictorial maps indicate as many periods of man's history. Between the maps are 8 chronologic tablets explaining their meaning.

Adjoining the Capitol to the south is the State Museum, whose interior has been remodeled to accommodate thousands of new exhibits. This new arrangement affords a better chance to see some of the priceless relics and specimens that heretofore have been overlooked by visitors. One of the Museum's principal attractions is the Gettysburg Room containing Rothermel's huge painting of the Battle of Gettysburg. An imposing statue of Abraham Lincoln is framed by the archway entering this room, inside of which are many battle flags carried by Pennsylvania legions during the war between the states. Exhibits include uniforms, bullets, and miscellaneous accouterments used by the Union followers.

For more than a quarter of a century Harrisburg has been a leader in civic improvements. Since 1902 the city has spent more than



Paxton Church—Oldest Presbyterian Church in Pennsylvania



Harrisburg's "Front Steps" Promenade and River Park



A drive in Harrisburg's 1100 Acres of Public Parks



City Flower Garden in River Parkway

\$14,000,000 on major civic developments; it has more than 100 miles of smooth paved streets criss-crossing its 6 square miles of land area, perfect sewerage, substantial yet ornamental municipal reservoirs, improved filtration plant and a pumping station both municipally owned, and is conceded to be one of the best-ordered cities in the country.



Polyclinic Hospital

Among Harrisburg's fine new buildings is the \$1,000,000 Zembo Mosque, where some of the entertainment features of the Society's convention will be held.

AUTOMOBILE ROUTES

At the crossroads of 7 principal highways, Harrisburg is Pennsylvania's most accessible city and within a few hours' driving distance from every part of the state. From the north central section U. S. Route 111 follows the Susquehanna River to Harrisburg. From the northeast U. S. Route 11 taps the territory around Scranton and Wilkes-Barre. Visitors from the Pocono region and the southern anthracite districts can use U. S. Route 209, becoming Pa. Route 14 and U. S. Route 11 south of Millersburg. Those in the eastern counties will prefer U. S. Routes 22 or 422, and visitors from the Philadelphia district have a choice of Pa. Route 5 or U. S. Route 30 to Lancaster and then U. S. Route 230 from that city direct to the business section of Harrisburg.

Three highways tap the southeastern and south central counties. U. S. Route 111 comes north from Baltimore to Harrisburg through York; U. S. Route 15 runs direct to the Capital City from Virginia via Frederick, Md., and Gettysburg. U. S. Route 11 traverses the Cumberland Valley through Chambersburg and Carlisle. The water-grade highway across Pennsylvania

from Pittsburgh is U. S. Route 22 via Hollidaysburg and Lewistown. Western Pennsylvanians who prefer to follow the Lincoln Highway will turn north at Chambersburg over U. S. Route 11 to Harrisburg. The northwestern section of the state is accessible by U. S. Route 322 and U. S. Route 22, its eastern connection.

Regardless of the highway used, all approach Harrisburg through fine scenic regions. The Susquehanna Trail, the William Penn Highway, the Lakes-to-Sea Highway all cross at Harrisburg and all provide a diversity of scenery that has made them nationally famous.

Motorists using Routes 11, 111, and 209 from the north will enter Harrisburg on the city's famous River Drive (Front Street). U. S. Route 22 from the west also traverses this scenic boulevard, which skirts the Susquehanna River between Clarks Ferry and Harrisburg. From the south Routes 111, 15, and 11 approach the city over either of the river bridges and lead directly into the heart of the city. Route 22's eastern approach is over Pennsylvania's \$5,000,000 World War Memorial



Harrisburg Hospital

Bridge, which emerges into the State Capital development in the downtown district. Routes 422, 5, and 230 from the East also lead directly into the hotel and business center. All highways leading into Harrisburg are well marked. Motorists should experience no difficulty.

NEAR-BY ATTRACTIONS

A number of places of unusual interest to members of the State Society are located near

Harrisburg, providing an opportunity to combine some educational sight-seeing with a visit to the convention.

The State Department of Agriculture laboratory is located across the river from Harrisburg along Pa. Highway 5, just north of Enola, where one of the country's largest freight classification yards is operated by the Pennsylvania Railroad. Here 5000 tests, examinations, and experiments are made every year on domestic animals and fowls, as well as wild game and fish, as part of the state's campaign to conserve and promote the health of both humans and animals.

On the way to the laboratory and located on the north end of Island Park, opposite the center of Harrisburg, is the city's municipal water filtration plant and the laboratory in which all water

is tested. On the post is an old stone guardhouse built by Hessian prisoners captured by Continental soldiers at the Battle of Trenton. The barracks and school occupy the site of the famous Carlisle Indian School, which was used during the World War as a base hospital.

Three places of interest can be visited by following U. S. Highway 230 toward Lancaster. At Middletown is the Pennsylvania I. O. O. F. Home for the Aged and the immense Intermediate Army Air Corps Depot, which services all U. S. Army planes in eastern United States and Panama. The Crippled Children's Hospital is located on the western boundary of Elizabethtown, just 18 miles from Harrisburg. On the eastern edge of the town are the Masonic Homes of the Grand Lodge of Pennsylvania, which



Farm Show Building

and milk are tested. The plant can be reached by using either the Market Street or the Walnut Street bridge to the island and the West Shore. A large athletic field, the scene of baseball and football attractions, is also on the north end of Island Park.

At Carlisle, 18 miles from Harrisburg, is the Medical Field Service School of the United States Army and Carlisle Barricks, headquarters of the First Medical Regiment. Hundreds of Medical Reserve officers receive their field training there every year and instruction periods are conducted every summer for medical students in the Reserve Officers Training Corps. One of the features of the school is a laboratory in which many accouterments used by the medical detachments of the Army, Navy, and Marine Corps have been developed, improved, and per-

comprise an interesting little community that is one of the show places of the East.

The famous model industrial town of Hershey, home of the world's largest chocolate and cocoa factory, is the destination of thousands of visitors every year. From Elizabethtown it can be reached by following an improved macadam road from the western edge of the community. From Harrisburg, Hershey is 12 miles via U. S. Route 422. Among the institutions that have been recently erected are the Community Building, containing a hospital, theater, auditorium, library, cafeteria, school, gymnasium, swimming pool, and reading rooms; the mammoth new high school and a \$1,000,000 hotel on an eminence overlooking the town; and a number of cottages comprising part of the Hershey Industrial School, endowed for \$40,000,000 by M. S.

Hershey, founder of the community which bears his name and which benefits from his active interest in civic affairs. Visitors are welcome to inspect the big chocolate factory, as well as other institutions in the town and vicinity.

Returning to Harrisburg from Hershey many

HOTEL ACCOMMODATIONS

For a century and a half, Harrisburg has been entertaining an endless stream of visitors numbering many thousands every year. As a consequence, its hotel accommodations are adequate for even the largest crowds, as when the annual Farm Products Show brings 50,000 people to the city within a 5-day period every winter.

Convention hotel headquarters will be in the Penn-Harris at Third and Walnut Streets, a modern, first-class 400-room hotel, which entertains scores of conventions annually.

All other hotels are within 2 blocks of the Penn-Harris. The Harrisburger, the city's newest, is a towering 300-room hotel, a few steps from the Penn-Harris and also facing Capitol Park. Just across the street from headquarters is the Columbus, with 90 rooms.

Along Market Street are the New Plaza, the Russ, the William Penn. and the Senate. On Market Square is the Bolton House. Smaller hotels include the Colonial, the Governor, the Dauphin, the Alva, and the Stanley.

Visitors requiring comfortable rooms in private homes are accommodated by the Housing Bureau of the Harrisburg Chamber of Com-



Cameron Extension Drive

motorists stop at Hummelstown for a visit to Indian Echo Cave, one of the largest caverns in the state that is open to visitors. The cave is one-half mile south of Hummelstown.

FARM SHOW BUILDING

The convention will be conducted in America's largest exposition building under one roof, the Pennsylvania Farm Show Building at Maclay and Cameron (Eleventh) Streets, the finest facilities that the State Society has ever used for an annual meeting. The main entrance opens into an impressive lobby, which will be used for exhibits. Thus delegates and visitors will pass through a vast arcade, with wide aisles, to reach the meeting rooms. There is an up-to-date cafeteria with a seating capacity of 700. On the lobby floor are a series of small offices that lend themselves to numerous uses.

Parking space for 5000 automobiles is available on the grounds surrounding the building. This area has been carefully graded and lined with posts and cable to facilitate parking with ease. Bus service is direct to the building.



Italian Lake Park

merce, a permanent department of the city's business organization which coöperates with the hotels in securing lodgings for the community's guests at the time of large gatherings. The bureau will suggest rooms in advance of the con-

vention to those who want to make advance reservations, and representatives will be on duty while the convention is in session.

The leading hotels are listed below, together



Penn-Harris Hotel

with the number of rooms and the rates for single accommodations:

<i>Hotel</i>	<i>Location</i>	<i>No. Rooms</i>	<i>Rates</i>
Penn-Harris	Third at Walnut	400	\$2.50-\$4.00
Harrisburger	Third at Locust	300	\$2.50-\$4.00
William Penn	327 Market St.	160	\$1.50-\$3.00
Plaza	423 Market St.	125	\$1.50-\$3.00
Bolton	Market Square	100	\$1.50-\$3.50
Columbus	Third at Walnut	90	\$1.50-\$3.00
Senate	Market at Second	60	\$1.75-\$3.00
Russ	Market at Fourth	47	\$1.50-\$2.50

LOCAL TRANSPORTATION

Owing to the fact that the Farm Show Building, where all the scientific sessions will be held, is approximately 2 miles from the hotel section of Harrisburg, the transportation committee has arranged for special bus service from the Penn-Harris Hotel to the Farm Show Building for a 7-cent fare. Busses will leave in the morning in

time for the first session and at intervals thereafter if sufficient number desire this service.

The Chevrolet Motor Company has very kindly offered to place 20 or 25 courtesy cars at the service of the physicians and their wives during the convention. This service will be continuous and complimentary with the good wishes of Chevrolet. Cars will be marked with appropriate signs.

The 2 local taxicab companies quote a rate of 60 cents for 1 to 5 passengers from the center of the city to the Farm Show Building.

If these arrangements are properly understood and utilized, they will solve all problems of transportation at the convention.

THE GOLF TOURNAMENT

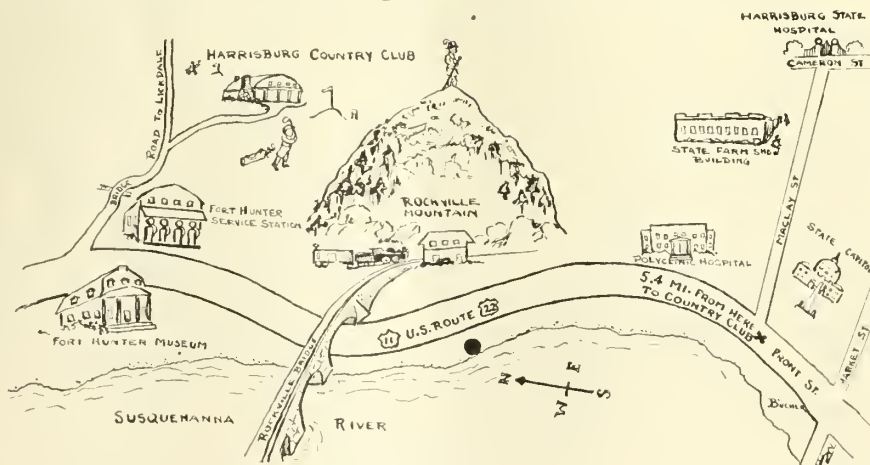
The annual golf tournament will be played at the Harrisburg Country Club, Monday, Sept. 30, with play starting at 9 a. m. and continuing throughout the day. Lunch and refreshments will be served at the Club House. The golf dinner will follow in the evening at 7 o'clock.

The committee will have the largest number of prizes that has ever been given at a State Society Tournament. Every club and duffer playing will have a chance to win one or more prizes. Quite a few innovations to golf tournaments will be presented.

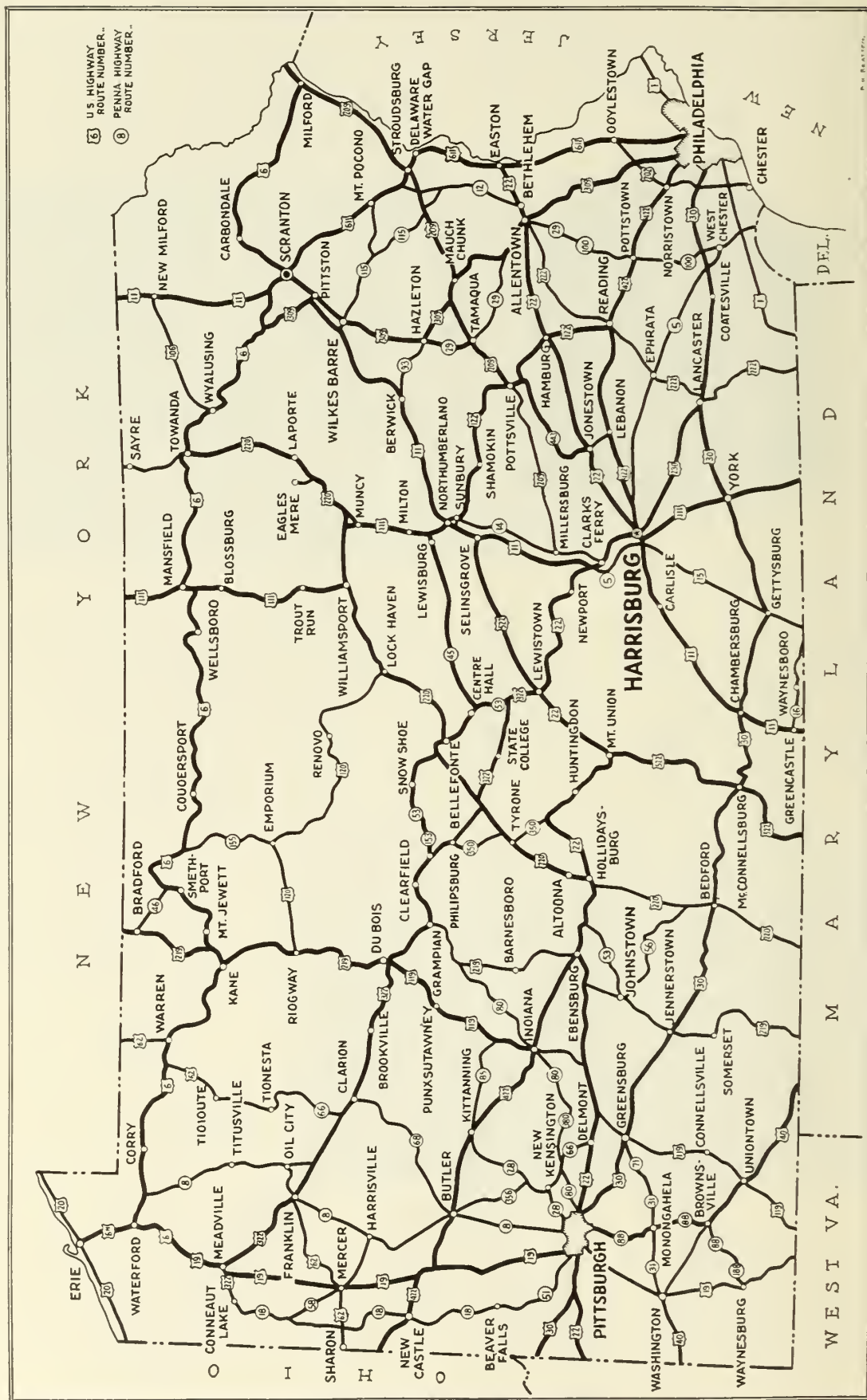
Many notables in the medical and political field will be present at the dinner in the evening, and the Golf Committee expects to start the convention off with a great round of fun and pleasure.

The Harrisburg Country Club is easily accessible, being but a 10-minute drive from the heart of the city. Transportation will be furnished to those who do not wish to drive their own cars.

The chairman of the local committee is Park A. Deckard, 814 N. Second Street, Harrisburg, to whom inquiries should be addressed and from whom entry blanks must be obtained. Applications should be sent in at once.



Route to Harrisburg Country Club



ROAD MAP OF PENNSYLVANIA

HARRISBURG, PA.

AND IMMEDIATE VICINITY

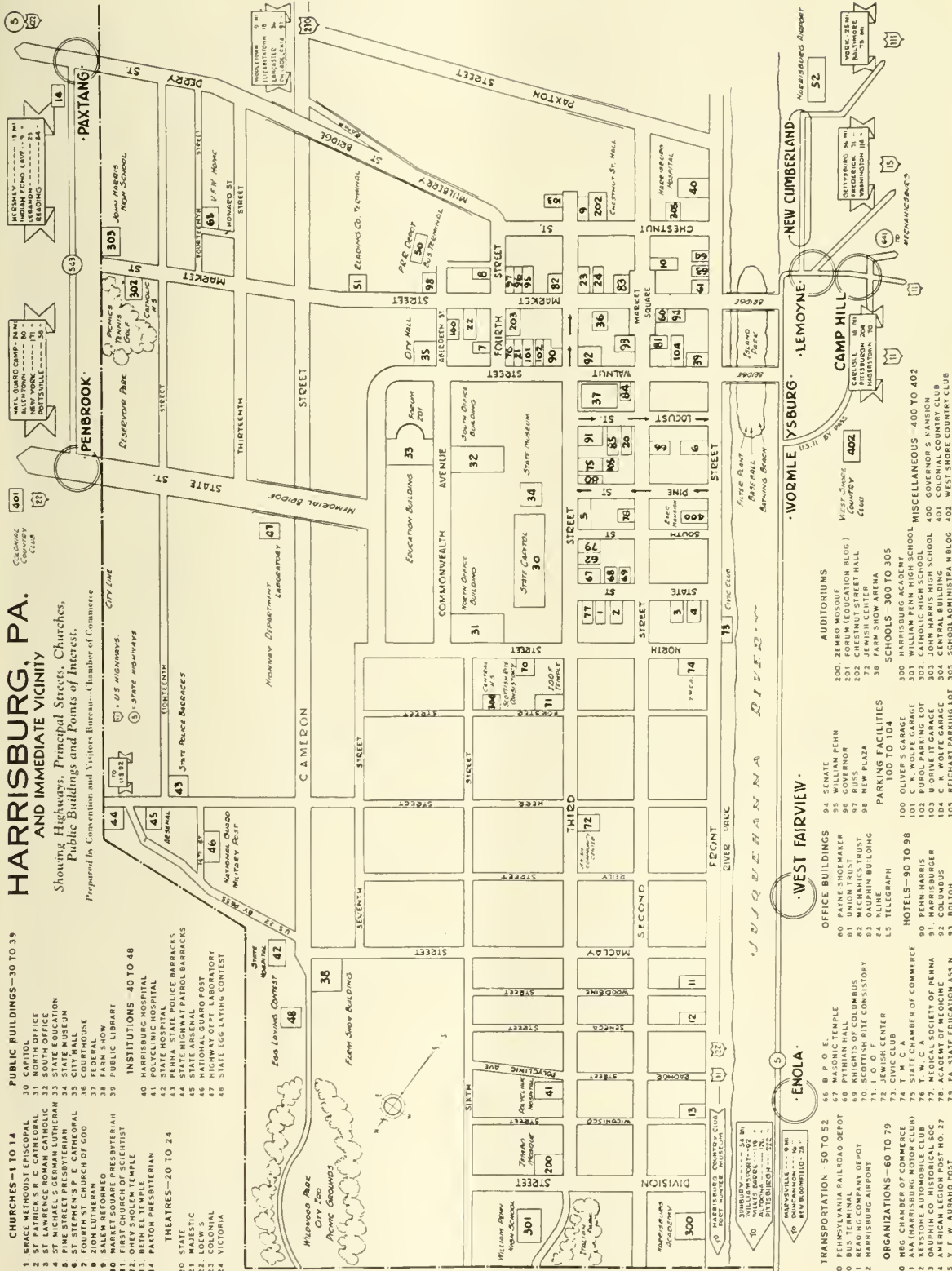
Showing Highways, Principal Streets, Churches,
Public Buildings and Points of Interest.

Prepared by Convention and Visitors Bureau—Chamber of Commerce

CHURCHES—1 TO 14

PUBLIC BUILDINGS—30 TO 39

1. GRACE METHODIST EPISCOPAL
2. ST. PATRICK'S R. C. CATHEDRAL
3. ST. MICHAEL'S GERMAN LUTHERAN
4. ST. MICHAEL'S GERMAN LUTHERAN
5. PINE STREET PRESBYTERIAN
6. ST. STEPHEN'S P. E. CATHEDRAL
7. ST. JOHN'S LUTHERAN
8. ZION LUTHERAN
9. SALEM REFORMED
10. MARKET SQUARE PRESBYTERIAN
11. MARKET SQUARE METHODIST
12. OLEY SHOLEN TEMPLE
13. PATTON PRESBYTERIAN
14. PATTON PRESBYTERIAN
20. STATE
21. MAJESTIC
22. COLONIAL
23. COLONIAL
24. VICTORIA
30. CAPITOL
31. NORTH OFFICE
32. STATE EDUCATION
33. STATE EDUCATION
34. STATE MUSEUM
35. CITY HALL
36. FEDERAL
37. FEDERAL
38. FARM SHOW
39. PUBLIC LIBRARY
40. INSTITUTIONS 40 TO 48
41. HARRISBURG HOSPITAL
42. POLYCLINIC HOSPITAL
43. PENNA. STATE POLICE BARRELS
44. STATE HIGHWAY PATROL BARRELS
45. STATE ARSENAL
46. STATE ARSENAL
47. HIGHWAY DEPT. LABORATORY
48. STATE EGG LAYING CONTEST



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A PREVIEW OF THE SCIENTIFIC PROGRAM

The program for the Harrisburg session, September 30 to October 3, was published in the August number of the JOURNAL. It will be published also in full in the handbook to be distributed to the members who register in attendance at the Farm Show Building. As is usually the case, the committee in charge, which is representative of all phases of the State Society's organization, includes 2 representatives from each of the society's 7 scientific sections. The program has been designed as a series of periods for graduate study, and as most of those who attend are engaged in the general practice of medicine, most of the papers and discussions have been planned with this in view.

This is of course especially true of the General Meetings to be held Wednesday and Thursday mornings at 9 and 9:15 o'clock respectively, and the meetings of the Section on Medicine as well as the Section on Surgery, on Tuesday and Wednesday at 2 p. m., also Thursday at 1:30 p. m. General values mark especially both programs of the General Meetings and the program of the joint meeting of the Section on Surgery with the Section on Medicine on Wednesday at 2 p. m. This, the only joint program of the session, will be limited to discussion of tuberculosis and gallbladder disease.

Engaging in the above discussions will be found not only experienced clinicians and teachers who are members of our own State Society,

but also certain guest speakers whose qualifications are referred to in this and succeeding pages of the JOURNAL.

The first General Meeting, to which we have not previously referred in this very sketchy preview, is that of Tuesday morning, October 1, at 10 a. m. This opening General Session is always a delightful occasion, with addresses of welcome, announcements regarding entertainments, *etc.*, and the installation of the new president followed by his declaration of his ambitions and hopes for the society for the coming year. Dr. Colwell, one of the youngest men to be called to this high office, is a finished platform speaker.

This year the opening General Meeting will be especially distinguished by inclusion among the speakers of the Hon. George H. Earle, Governor of the Commonwealth of Pennsylvania.

An analysis of the program only as we have referred to it above will disclose plans for discussions on medical economics; certain relations between physicians, patients, hospitals, and social service; a proposal "to board out" under "family care" certain men-

tal patients who are charges of the state; and the rôle of psychiatry in the penitentiaries.

There will be a paper by a guest physician from Canada, who will discuss the prevention of dental caries by dietary means, and a symposium on cardiovascular diseases, including discussion of the ever-pressing and apparently rapidly increasing problem of the management of the patient with anginal heart failure, with essential

THE GUEST SPEAKERS

General Sessions

Max Thorek, M.D., was born in 1880 and was graduated from Rush Medical College, University of Chicago, in 1904. He is professor of clinical surgery of the Cook County Graduate School of Medicine, attending surgeon at Cook County Hospital, and chief surgeon of the American Hospital of Chicago. He is also corresponding member of the following surgical societies: Paris, France; Torino, Italy; Madrid, Spain; Cairo, Egypt; *etc.* He specializes in general surgery and is author of a number of books on surgical diagnosis and technic.

Four years ago Dr. Thorek was knighted by the Italian government and recently received the decoration of the Legion of Honor of France for his "contributions to surgical science and his work among the poor." He descends from a medical family, his son being the fifth in line to follow medicine as a vocation.

The subject on which he will address The Medical Society of the State of Pennsylvania pertains to the possible lowering of mortality of gallbladder operations by a procedure devised to obliterate the gallbladder by electrosurgical means.

Allen Graham, M.D., was graduated from the University of Maryland School of Medicine in 1909. He is a Fellow of the American Medical Association and of the American College of Surgeons, a member of the American Association of Pathologists and Bacteriologists, and retiring president of the American Association for the Study of Goiter. He was formerly associate professor at the Western Reserve University School of Medicine. At the present time he is on the staff of the Cleveland Clinic, Cleveland, Ohio.

"Cancer of the Breast" is the title of the address which Dr. Graham will present before the General Meeting on Wednesday, October 2.

Frederick F. Tisdall, M.D., was graduated from the Medical School of the University of Toronto in 1916. From 1919 to 1921, he was in the Department of Pediatrics, Johns Hopkins University School of Medicine, working under Dr. John Howland. In 1921 he returned to Toronto and since that time has been on the staff of the Department of Pediatrics, Hospital for Sick Children. At the present time he is director of Nutritional Research Laboratories and assistant physician, Hospital for Sick Children, and Associate in Pediatrics, Department of Medicine, University of Toronto. Dr. Tisdall is a Fellow of the Royal College of Physicians of Canada.

"Prevention of Dental Caries and the Improvement of Health by Dietary Means" is the title of the address Dr. Tisdall will present before the General Meeting on Thursday, Oct. 3.

Section on Medicine

Harold M. Marvin, M.D., was graduated from Harvard University Medical School in 1918. At the present time he is associate clinical professor of medicine at Yale University Medical School.

"Anginal Heart Failure—Its Causes and Treatment" is the title of the address which Dr. Marvin will present to the Section on Medicine. The discussion is based on recent evidence regarding the nature and etiology of cardiac pain.

James Alexander Miller, M.D., was born in New Jersey and was graduated from Columbia University College of Physicians

(Continued on page 983.)

hypertension, and a discussion of the prognosis of coronary occlusion based on 400 cases. There will be a paper on abdominal emergencies, frequently overlooked by the inexperienced, and a discussion on the injection treatment of varicose veins.

The programs of other scientific sections of our society will command the attention of general practitioner and specialist alike.

Few of either group will care to miss the discussion on recent advances in nutrition by such an expert as E. V. McCollum, a doctor of science, and a guest speaker from Johns Hopkins University. Dr. McCollum will be heard in the Pediatric Section on Tuesday at 2 p. m., followed by Dr. E. Wingate Todd, an English physician and Fellow of the Royal College of Surgeons, now teaching anatomy in Western Reserve University, Cleveland, who will discuss the clinical significance of skeletal roentgen-ray assessment in children. On the same afternoon's program will also appear the following distinguished members of our own society: Drs. George E. deSchweinitz, Chevalier Jackson, and Pennsylvania's Secretary of Health, Dr. Edith MacBride-Dexter.

In the program arranged for the same section on Thursday we find opportunities to learn how to eradicate diphtheria from Pennsylvania (12 minutes)—the time limit of course refers to the time allotted to the speaker and not to the time allotted to the eradication of the disease. There will also be discussion of a highly interesting and

modern method of preventing measles, which should interest every general practitioner as well as those specializing in pediatrics.

We acknowledge our inability to find as much proportionately of interest to general practitioners in the programs of the Section on Dermatology and the Section on Urology. However, we are aware of the determination of the officers of these sections to make their programs

attractive, and have every confidence in their selection of subjects and speakers. We note that 2 of their guest speakers come from the neighboring state of New York, another from Maryland.

We have refrained from mentioning by name most of the guest speakers because we want you to learn more about them by reading the sketches appearing herewith.

We also want you to review carefully the entire scientific program for the 1935 annual session as it appeared in last month's issue of the JOURNAL (August). We believe you should at that time, with pencil and notebook, make a comprehensive survey of the program, choosing the subjects you desire to hear discussed,

at the same time noting the scientific exhibits which you wish to visit as they may be related to the discussions you expect to hear. In this way you will not only conserve your time, but you will almost surely obtain greater values than you will by trusting to "hit or miss" decisions made while the various programs are in progress.

WALTER F. DONALDSON, *Secretary.*

THE GUEST SPEAKERS

(Continued from page 982.)

and Surgeons in 1899, since which time he has been practicing in New York City. He has been professor of clinical surgery at the College of Physicians and Surgeons since 1913. He is director of the Tuberculosis Division of the Bellevue Hospital, and consulting physician to the Trudeau Sanatorium and the Sprain Ridge Hospital in Yonkers.

Dr. Miller served for 2 years as medical director of the Rockefeller Tuberculosis Commission in France. He was decorated with the Chevalier Légion d'Honneur (France) in 1919.

Dr. Miller is a past president of both the New York and the National Tuberculosis Associations, chairman of the Public Health Committee of the New York Academy of Medicine, president of the American College of Physicians, and a member of several other professional organizations.

"Thoracic Surgery in the Treatment of Pulmonary Tuberculosis from the Standpoint of the Internist" is the title of the address which Dr. Miller will present before the joint meeting of the Section on Medicine and the Section on Surgery.

Section on Surgery

Allen O. Whipple, M.D., was born in Persia and was graduated from Columbia University College of Physicians and Surgeons in 1908. He has practiced in New York City since 1910. Since 1921 Dr. Whipple has been professor of surgery at the College of Physicians and is director of the surgical service at the Presbyterian Hospital. He is a member of several professional organizations.

"Recent Advances in Surgery of the Pancreas" is the title of the address which Dr. Whipple will present before the joint meeting of the Section on Surgery and the Section on Medicine.

Walter E. Dandy, M.D., was born in Missouri and was graduated from Johns Hopkins University School of Medicine in 1910. At present he is professor of neurologic surgery at Johns Hopkins. He has contributed numerous articles to surgical and neurologic journals.

Dr. Dandy introduced new operative procedures for tumors of the brain, neuralgias, and other disturbances of cranial nerves; he also introduced ventriculography, ventricular estimation, and cerebral pneumography for diagnosing and localizing intracranial lesions and tumors of the brain.

"The Treatment of Injuries of the Head" is the title of the address which Dr. Dandy will present to the Section on Surgery.

Section on Eye, Ear, Nose, and Throat Diseases

James W. White, M.D., became associated, in 1914, with Dr. Alexander Duane, New York City, with whom he remained until Dr. Duane's death in 1926. Since 1918 he has taught the diagnosis and treatment of the anomalies of the ocular muscles at the Post-Graduate Medical School and Hospital, also at various institutions and in private classes. He is consultant in myology at the Brooklyn Eye and Ear Hospital.

He is a member of the following societies: American Ophthalmological Society, Academy of Ophthalmology and Otolaryngology, the Eye Section of the American Medical Association,

(Continued on page 984.)

THE SCIENTIFIC EXHIBIT

The Scientific Exhibit of the Eighty-fifth Annual Session embraces a large and varied field, and will be an interesting and important feature of the convention. It will be located in the East Lobby of the Farm Show Building, adjacent to the Technical Exhibit, and quite convenient for every convention visitor. The booths will be well arranged, properly constructed, and of ample size to house the display of each exhibitor.

No effort has been spared to make the 1935 Scientific Exhibit one of practical rather than erudite value. Members of the State Society are urged not only to visit the various scientific exhibits but to enter into conferences with the exhibitors. In this way the fullest advantage of the exhibits will be secured.

Admission to the Scientific Exhibit will be granted only to those wearing the convention button, which is given to all who register. In special cases a guest card will be issued.

A detailed description of the exhibits follows:

Carcinoma of the Colon and Rectum.—Mounted specimens of carcinoma of the colon and rectum removed at operation,

with history extracts. Preoperative and postoperative roentgen-ray plates of lesions of the colon and rectum. Charts giving statistics of a clinical study of cases of carcinoma of the colon and rectum operated upon. Motion pictures showing the technic of excision of carcinoma of colon and rectum. Edward J. Klopp, Frederick W. Deardorff, Manges Smith, and James M. Surver, Jefferson Medical College Hospital, Philadelphia.

Carcinoma of Larynx.—The object of this exhibit is to emphasize the importance of early diagnosis of laryn-

geal carcinoma. Exhibit will consist of specimens of neoplasms of the larynx illustrating various types of carcinoma; all the specimens were removed at operation. Approximately 20 or more specimens will be exhibited. The exhibit is to be amplified by photomicrographs, photographs, drawings, records, and statistics. A number of transparencies of additional specimens will be shown also. Louis H. Clerf, Baxter L. Crawford, and Robert M. Lukens, Jefferson Medical College Hospital, Philadelphia.

The Experimental Production of Enlargement of the Prostate and Other Accessory Sex Organs in the Rat.—Exhibit consists of photomicrographs, specimens, and animals illustrating that union by parabiosis of normal rats to castrated rats causes enlargement of the prostate and other accessory sex organs of the normal animal. This is a study of the effects produced at various time intervals in these parabiotic twins. James F. McCahey, David Soloway, and David R. Morgan, Departments of Urology and Anatomy, Jefferson Medical College, Philadelphia.

Mechanical Backache.—Roentgen-ray transparencies showing the mechanical causes of backache due to congenital and developmental anomalies of the spine. Arthur D. Kurtz, Orthopedic Department, Jefferson Medical College, Philadelphia.

Diet in Gallbladder Disease.—High carbohydrate and low fat and cholesterol used in gallbladder conditions. Pictures on drainage. Printed diet slips. Martha Walker and Catherine R. Roess, Dietary Department, Jefferson Medical College Hospital, Philadelphia.

Carcinoma of Rectum and Rectosigmoid.—Exhibit consists of pathologic specimens, charts, and pictures illustrating the modern operation, gross pathologic and microscopic pathologic varieties, diagnosis and surgical procedures. Damon B. Pfeiffer, Surgical Service "A," Lankenau Hospital, Philadelphia.

Lesions of the Small and Large Intestines.—Abstracts of case histories. Roentgen-ray films and pathologic specimens illustrating many types of ulcerative colitis,

THE GUEST SPEAKERS

(Continued from page 983.)

the New York Ophthalmological Society, and Academy of Medicine.

His writings have been chiefly on some phase of muscle anomalies. He will discuss the screen test and its modifications.

Arthur W. Proetz, M.D., is associate professor of clinical otolaryngology in Washington University School of Medicine, and Oscar Johnson Institute, St. Louis, Mo. He is affiliated with the Washington University, St. Luke's, St. Louis, Jewish, and City hospitals. He has been associate editor of the *Annals of Otolaryngology, Rhinology, and Laryngology* since 1926.

In 1925, Dr. Proetz developed the displacement method of sinus diagnosis and treatment. In 1931 a monograph on this subject was published and awarded the Casselberry Prize of the American Laryngological Association, which was presented at the International Congress, Madrid, 1932. The method is now used in this country and abroad, literature on the subject having accumulated from most European countries, South America, and the Orient.

Last year Dr. Proetz presented researches on sinus treatment before the Royal Society of Medicine, London, at their invitation.

His researches are chiefly concerned with physiology and mechanism of the nose as related to treatment, especially activity of the ciliated epithelium, demonstrated by motion pictures. He will discuss the treatment of sinus disease.

Section on Pediatrics

E. V. McCollum, M.D., professor of biochemistry in the School of Hygiene and Public Health of Johns Hopkins University, will deliver an address entitled "The Recent Advances in Nutrition."

Dr. McCollum was born near Fort Scott, Kansas, March 3, 1879. He obtained his Bachelor of Arts degree at the University of Kansas in 1903, and his Master of Arts degree in the same institution in 1904. In 1906 Yale University conferred upon him the degree of Doctor of Philosophy, and the University of Cincinnati the degree of Doctor of Science in 1920. In 1907 he was appointed instructor of agricultural chemistry at the University of Wisconsin; in 1917, when he resigned, he was professor of agricultural chemistry. Since that time he has been professor of biochemistry at the School of Hygiene and Public Health in the Johns Hopkins University. He is a member of the American Association for the Advancement of Science, American Society of Biological Chemists, American Chemical Society, American Public Health Association, American Association of University Professors, National Academy of Sciences, Kaiserlich Deutsche Akademie der Naturforscher Zu Halle, etc.

He is the author of *Textbook of Organic Chemistry for Medical Students*, *The Newer Knowledge of Nutrition*, *Food, Nutrition, and Health*, and *The American Home Diet*. He received the Howard N. Potts gold medal, Franklin Institute, "for distinguished scientific work," 1921; the Isaac Ridgeway Trimble medal for studies on bone growth, 1932; the Johns Scott medal from the City of Philadelphia, 1924; and the Newell Sill Jenkins medal from the Connecticut State Dental Society, 1927.

(Concluded on page 985.)

polyposis with malignant degeneration, unusual tumors and terminal (regional) ileitis. The exhibit will stress a correlation of clinical and pathologic findings in a number of cases of ulcerative colitis. Henry L. Bockus and Eugene A. Case, University of Pennsylvania School of Medicine, Philadelphia.

Maxillofacial Surgery.—Exhibit consists of photographs of maxillofacial surgery. Robert H. Ivy and Laurence Curtis, University of Pennsylvania School of Medicine, Philadelphia.

Gill Bone Plate Graft.—Exhibit of roentgenograms and drawings of bones that have been cut, showing shape of graft and how to reverse and hold in place. Paul N. Jepson, University of Pennsylvania School of Medicine, Philadelphia.

Biliary Drainage—A Clinical Demonstration.—A demonstration of the technic of biliary drainage. Macroscopic and microscopic findings. Motion picture of technic and rationale. Drainage of patients. Charles-Francis Long, Temple University School of Medicine, Philadelphia.

The Prevention and Control of Eclampsia by Fluid Balance and Dehydrations.—Exhibit consists of lantern slides, charts, diagrams, etc. Large wall placards showing tables of treatment, results, etc. Jesse O. Arnold, Temple University School of Medicine, Philadelphia.

Studies in Hyperthyroidism.—Exhibit consists of charts showing electrocardiograms before and after thyroidectomy, demonstrating disturbances of conductivity with normals for comparison; radiographic demonstration of distortion and compression of the trachea, stressing advantage of the lateral view; case reports and follow-up studies of hyperthyroidism in pregnancy; microscopic tissue changes in hyperthyroidism. Roentgenograms demonstrating distortion and compression of the trachea especially in the lateral view. Frederick A. Bothe and Carl F. Koenig, Presbyterian Hospital and Stetson Hospital, Philadelphia.

First-Aid in Relation to Policemen and Firemen.—Exhibit of first-aid equipment for and treatment of

injuries; emergency splinting of fractures and transportation of fractures; team demonstration by policemen and firemen. Hubley R. Owen, Medical Division, Department of Public Safety, Philadelphia.

Endocrine Studies in Breast Tumors.—Exhibit consists of photographs, microscopic material, animal specimens, and pathologic specimens showing the bio-assays of hormones in breast tumors. Charles F. Geschickter, Surgical Pathologic Laboratory, Johns Hopkins Hospital, Baltimore.

Clinical and Experimental Studies on the Effects of

Huge Doses of the Estrus-Inducing Hormones.—Photomicrographs showing the pituitary and ovarian effects of the estrus-inducing hormone as compared with the effects of small doses. Motion pictures depicting the technic of ascertaining the amount of the estrus-inducing hormone present in the blood and in the 24-hour output of urine as a guide in determining clinically the required dosage. Charts showing the effect of large doses of the product on the menstrual rhythm of normal, amenorrheic, and dysmenorrheic women. Charts showing the effect of huge doses in the severe menopausal syndrome, gonorrheal vaginitis, adenosis of the breast with nipple bleeding, and kraurosis vulvae. Studies to determine the required dosage. Charles Mazer and S. Leon Israel, Mount Sinai Hospital, Philadelphia.

Endocrine Disorders in Children.—A consideration of the newer methods of endocrine diagnosis based upon physical, chemical, and roent-

genographic interpretation. Photographs and charts illustrating the various disorders from these viewpoints, and treatment. Murray B. Gordon, Long Island College of Medicine, Brooklyn.

A. Surgical Treatment of Thyroid Diseases. B. Exploration of Common Duct. C. Abdominoperineal Resection of the Rectum.—Exhibit of illustrations of thyroid operations, results of blood iodine determinations, results of impedance angle determinations in thyroid disease, mouldages of thyroid anatomy. Speci-

THE GUEST SPEAKERS

(Continued from page 984.)

T. Wingate Todd, M.D., professor of anatomy at the Western Reserve University, will give an address entitled "The Clinical Significance of Skeletal Roentgen-Ray Assessment in Children."

Dr. Todd was born in Sheffield, England, in 1885, of Scottish parents. He was educated first in Sterling, Harry Lauder's home town, and then in York and Nottingham. His medical education was obtained in Manchester and at the London Hospital. His first research work was performed on mummies; on humans his anatomic research has been mostly with children, and he has done a great deal of work on the sympathetic system and the gastro-intestinal tract.

He received the degrees of M.B., Ch.B., Manchester, first-class honors, 1907, and F.R.C.S. (England), 1911. He was a lecturer in anatomy and dental anatomy at Manchester, 1907-1912, and he has held clinical appointments in surgery, pediatrics, roentgenography, gynecology, ear, nose, and throat diseases, contagious diseases, pathology, and tuberculosis. Dr. Todd has been professor of anatomy, Western Reserve University, since 1912; director of Hamann Museum since 1920, and chairman of the Brush Foundation since 1928. He is a captain in the Royal Canadian Army Corps.

Section on Dermatology

Earle D. Osborne, M.D., of Buffalo, New York, will be the guest speaker for the Section on Dermatology.

Dr. Osborne was born in Petoskey, Michigan, and received the degree of M.D. from the University of Michigan in 1919. He also received the degree of M.S. in dermatology from the University of Minnesota. He was Fellow in Dermatology at the Mayo Foundation from 1919 to 1933, later becoming associated with the late Dr. Grover Wende of Buffalo. Aside from his membership in the county, state, and national medical societies, he is a member of Alpha Omega Alpha and the American Dermatological Association. He is professor of dermatology and syphilology at the University of Buffalo School of Medicine, and holds a number of acting consulting posts in various Buffalo hospitals.

Dr. Osborne's work in regard to occupational and other forms of contact dermatitis is well known and universally accepted. His discussion of this work will be a valuable contribution to the dermatologic section. Dr. Osborne has made many contributions to the literature on various dermatologic subjects, and the officers of the section feel honored in having him as their guest speaker.

Section on Urology

Henry G. Bugbee, M.D., New York City, will be the guest speaker before the Section on Urology, Wednesday, Oct. 2, 1935. His subject will be "Cancer of the Prostate."

Dr. Bugbee is urologist to St. Luke's, Woman's, and Lawrence Hospitals, New York, and consulting urologist to Mountainside Hospital, Montclair, N. J., Muhlenberg Hospital, Plainfield, N. J., Martha Memorial, Port Jefferson, Long Island, and Vassar Brothers' Hospital, Poughkeepsie, N. Y. He was formerly president of the American Urological Association, the American Association of Genito-Urinary Surgeons, and the New York Urological Society; chairman of the Section on Urology of the American Medical Association; delegate to Société Internationale d'Urologie; and secretary of the Clinical Society of Genito-Urinary Surgeons.

mens and illustrations of carcinoma of the rectum. Illustrations, moulages, and illustrations together with tables of common and hepatic bile duct injuries and stones. Frank H. Lahey and Richard B. Catell, Lahey Clinic, Boston.

Continuous Intra-gastric Milk Drip—A New Therapy for Peptic Ulcer.—Exhibit of apparatus, method of therapy, and charts showing studies in gastric secretion on which the method is based, particularly nocturnal gastric secretion; curves before and after treatment; roentgenograms showing results. Asher Winkelstein, Mount Sinai Hospital, New York.

A Study of Carcinoma of the Cervix Uteri.—A survey of a group of more than 100 cases of carcinoma of the uterine cervix, showing the histology, gradation, metastases, complications, and methods of treatment. The exhibit will consist of photomicrographic transparencies showing characteristic histology, radiographs demonstrating complications and metastases, and drawings, graphs, and charts illustrating methods of treatment. Roscoe W. Teahan, Willard S. Hastings, Elwood E. Downs, and Hoke Wammoth, Jeanes Hospital, Fox Chase, Philadelphia.

Electrocardiograms and Orthodiagrams—Normal and Abnormal.—Large cardboards on which are mounted the various electrocardiographic tracings and orthodiagrams, with descriptions. Alexander Margolies and Francis C. Wood, Hospital of the University of Pennsylvania (Robinette Foundation), Philadelphia.

Maternal Welfare—Syphilis in Newborn.—Exhibit consists of diagrams, charts, and graphs depicting outstanding causes of maternal deaths, gross pathologic specimens of syphilitic lesions in the newborn, and roentgen-ray films of syphilitic bone changes. James S. Taylor, Commission on Maternal Welfare, The Medical Society of the State of Pennsylvania.

Tumors of the Breast.—Exhibit consists of entire sections of breast (histologic) with research data and legends. J. William White and Talcott Wainwright, Cancer Research Fund, Scranton.

Surgical Treatment of Toxic Goiter.—Transparencies of patients who have been treated by means of thyroidectomy—before and after treatment. Transparencies illustrating technic of performance of thyroidectomy. Motion pictures showing steps carried out in the operative treatment of goiter. Harold L. Foss, Geisinger Memorial Hospital, Danville.

Bronchial and Esophageal Disease.—Exhibit consists of endoscopic views of painted models, transparencies of roentgenograms, and a brief description of typical cases correlating history, physical findings, and local pathologic involvement. Included also is a collection of foreign bodies removed from the air and food passages. F. W. Davison, Geisinger Memorial Hospital, Danville.

Diseases of the Kidney.—The exhibit consists of an anatomic and pathologic review by means of wax models and enlarged photomicrographic transparencies of the gross and microscopic structure of the kidney. Charts showing the present concepts of the etiology of nephritis with an outline of the modern methods of treatment. Other forms of kidney infections, such as those produced by the staphylococcus and B. tuberculosis, demonstrated also by models and photomicrographs. One point of the exhibit is to emphasize the

fact that most kidney lesions are merely expressions of disease elsewhere in the body. Carl E. Ervin, Harry F. Hunt, and W. H. Dearing, Geisinger Memorial Hospital, Danville.

Mental Hygiene Activities of the Danville State Hospital.—Graphic presentation of the intra- and extra-hospital mental hygiene program covering a period of 14 years, including administrative set-up, methods of hospital treatment, operation of outpatient clinics, education of the profession and the public, and operation of the new diagnostic clinic. J. Allen Jackson and Horace V. Pike, Danville State Hospital, Danville.

Activities of the Harrisburg Hospital.

A. Administrative: Charts and pictures describing the work of the various departments—inpatient and outpatient. Webster S. Kohlhaas.

B. Nutrition in Disease: Charts illustrating basic principles of diet in disease. Sample diet lists. Maurice I. Stein.

C. Diabetes: Exhibit showing method of conducting school and clinic. J. Arthur Daugherty.

D. Tumor Clinic: Photographic studies of tumor cases, with specimens. Carcinoma of the cervix uteri in women under age 30. Neurofibroma mollusum. Benign and malignant tumors of the mouth illustrated by charts and photographs. Harvey F. Smith, Samuel B. Fluke, Park A. Deckard, and Joseph C. Ludes.

E. Roentgen-ray Department: Roentgenograms of bone tumors, gastro-intestinal lesions, and chest lesions. Diagnostic urography. Allen Z. Ritzman, John H. Fager, Jr., and John L. Lanshe.

F. Laboratory: Demonstration of method of blood typing without the use of known sera. George R. Moffitt.

G. School of Nursing: Charts and photographs outlining requirements for admission, with special emphasis on health and physique. Student health program. Cumulative health record. Comparative study of students' health before the health program was instituted. Edith E. Yingst.

Industrial Toxicology.—Recent advances in clinical toxicology and diagnostic interpretations. Max Trumper, Philadelphia.

Clinical Biochemistry.—Significance and limitations of clinical biochemistry. Max Trumper, Philadelphia.

Cancer of the Breast.—Primary cancer of the breast—1895 to 1930. Surgical end results, with and without irradiation. Prognosis (Groups I to IV). Illustrative cases, tables, charts, and graphs, illustrating the end results of operation in cancer of the breast. Allen Graham, Cleveland Clinic Foundation, Cleveland, Ohio.

Ileo-cecal Tuberculosis.—Roentgenograms revealing changes discernible in all stages, with special emphasis on the "double contrast" technic and the scope of the diagnostic possibilities with this method of examination. Abraham J. Cohen and J. Gershon-Cohen, Eagleville Sanatorium, Philadelphia.

Activities of Polk State School.—Exhibition of products of industrial department and other school activities, together with display of forms used in the evaluation of mental deficiency. A motion picture showing physical set-up of the institution and the types of training given. Archibald Laird, Polk State School, Polk.

Fundamental Diagnostic Tests.—Demonstrations of albumin in urine, Robert's method; qualitative urine

sugar, Boston City Hospital method; quantitative urine sugar; Kahn test for syphilis; Gram's stain; Friedman test for pregnancy. Exhibit of findings. Herman H. Van Horn, Polyclinic Hospital, Harrisburg.

Clinical Value of Hormone Assays.—The exhibit includes a consideration of several hormones, namely, thyrotropic and gonadotropic hormones of the pituitary gland, thyroid hormone, testicular hormone (androtin), and follicular hormone (estrin). Demonstrations made by means of charts, transilluminated glass slides, wax models, assay apparatus, and test animals. It is considered particularly from the point of view of methods of assay for these hormones applicable for clinical use. It includes methods of assay for thyrotropic hormone by measurement of blood iodine in animals, methods of assay for gonadotropic hormone by means of the Friedman test, measurement of the thyroid hormone by blood iodine determination in human beings, and methods of assay for testicular and ovarian hormones in the urine. The clinical significance of the assays is indicated. E. Perry McCullagh, D. Roy McCullagh, and W. Kenneth Cuyler, Cleveland Clinic Foundation, Cleveland.

Public Health Aspects of Syphilis and Gonorrhea.—Card exhibits. Edgar S. Everhart, Pennsylvania Department of Health, Harrisburg.

Scope and Purpose of "Venereal Disease Information."—*Venereal Disease Information* is a monthly abstract journal of selected literature from medical journals of the world, prepared primarily for the information of physicians engaged in general practice. It is a contribution of the United States Public Health Service in its program directed against the venereal diseases. Audrey G. Morgan, United States Public Health Service.

Cancer Control Film.—This is an automatic projector showing to the public the importance of treating cancer early. There are 58 messages, one-half of which are illustrations. They are prepared for the laity, and the apparatus is available for local use by county medical societies. It can be used for demonstration for clubs or in store windows, or wherever there are crowds. George E. Pfahler, Commission on Cancer, The Medical Society of the State of Pennsylvania.

Cardiac Diagnosis.—Modern methods of diagnosing heart conditions in the Department of Cardiology of the Harrisburg Hospital. This exhibit covers electrocardiography and fluoroscopy; it shows unusual and interesting cardiograms and moving pictures, giving in detail the diagnosis of the various heart conditions. It is in conjunction with the Pennsylvania Heart Society. Jesse L. Lenker, Harrisburg Hospital, Harrisburg.

Chronic Arthritis.—This exhibit shows the incidence and sociologic importance of arthritis, together with charts illustrating the pathology; also bony specimens, roentgenograms, and casts. An outline is given of the factors operative to produce the disease and the measures necessary to control them. Motion pictures will describe other features of the disease. Ralph Pember-ton, Theodore F. Bach, Charles W. Scull, Robert T. Phillips, I. P. P. Hollingsworth, Wayne D. Stetler, and Edward K. Cravener, Philadelphia.

Results of Treatment of Paget's Disease and Osteitis Fibrosa Cystica.—Roentgenograms and charts showing the phases of Paget's disease and osteitis fibrosa cystica, the progress under treatment, and the results of treatment. Irvin Stein, Ellen P. Corson-White and Laslo

Kajdi, Philadelphia Orthopedic Hospital and Johns Hopkins Hospital.

First-Aid Treatment of Fractures.—Movietone demonstration of first-aid procedures in the emergency treatment of fractures. Hubley R. Owen, Medical Division, Department of Public Safety, Philadelphia.

Special Exhibit on Diabetes.—This exhibit was presented at the Atlantic City Convention of the American Medical Association by a committee composed of Elliott P. Joslin, chairman, Boston; Frederick G. Banting, co-chairman, Toronto; Charles H. Best, Toronto; Howard F. Root, Boston; Russell M. Wilder, Rochester, Minn., and Rollin T. Woodyatt, Chicago. The exhibit includes all phases of the subject under the following headings: History and statistics of diabetes, heredity, incidence, and etiology. Physiology of diabetes. Pathology of diabetes. Treatment of diabetes: (a) diet; (b) insulin. Insulin reactions. Complications in diabetes: (a) Coma; (b) tuberculosis; (c) arteriosclerosis; (d) pregnancy. Surgery in diabetes: (a) Anesthesia; (b) operations; (c) gangrene and its prevention. Diabetes economics, including diabetic camps. State and city diabetic programs. Experts in the field of diagnosis and treatment will be available to discuss problems of practical importance with those interested. Joseph T. Beardwood, Philadelphia Metabolic Association, Philadelphia.

Back Sprain—First Lumbar Neuralgia.—Motion picture exhibit and charts. William Bates and Bernard D. Judovich, Philadelphia.

Transplantation of the Ureters into the Rectosigmoid.—Moulages of the evolution of operative technics from 1899 to the present, demonstrating modifications and principles of the operation. Transparencies demonstrating experimental work performed on dogs and end results over a period of 2 years. Photomicrographs of the kidney showing the absence of infection or damage to renal parenchyma. Transparencies of clinical cases suitable for cystectomy and bilateral transplantation of the ureters with preoperative and postoperative urograms. Charles C. Higgins, Cleveland Clinic, Cleveland, Ohio.

Blood Pictures in Middle-Ear Infection.—The exhibit consists of illustrations and charts describing and correlating the hematologic findings in more than 100 thoroughly studied cases of middle-ear infection. Special reference is made to differential diagnosis and prognosis in mastoiditis. Max M. Strumia, Bryn Mawr Hospital, Bryn Mawr.

Cancer of the Breast and Oral Cavity.—Roentgenograms and photographs of cancers of the breast including preoperative, inoperable, and recurrent carcinoma of breast. Photographs of carcinoma of the oral cavity with monographs giving history and technic. George M. Dorrance, American Oncologic Hospital, Philadelphia.

Medical Economics.—Mottoes, maps, and diagrammatic sketches of the place and function of the medical economics committees in relation to county and state organizations. Comparative statistical charts. Literature on medical economics.

It is requested that the chairman of each county society Committee on Medical Economics or some responsible officer of the county society register at this booth during the convention. Francis F. Borzell, Committee on Medical Economics, The Medical Society of the State of Pennsylvania.

Anesthesia.—Charts illustrating premedications used in anesthesia and their values; a comparison of the effects of various agents upon the organs of the body; the dangers of various anesthetics; preoperative care; indications and contraindications for various anesthetic agents and methods; history of anesthesia; postoperative complications and sequelae of anesthetics, and how to avoid such; reasons for choosing various methods. Edward W. Beach, Philadelphia County Medical Society, Philadelphia.

The Value of the Periodic Health Examination.—The exhibit will consist chiefly of charts and diagrams, which will be used for short talks. Robert Alexander and Francis A. Faught, Public Relations Subcommittee on Periodic Health Examinations, The Medical Society of the State of Pennsylvania.

Your Health.—A résumé of plans for the observance of Pennsylvania Health Day. Maps and clipping files showing the location of newspapers which publish the health articles prepared by the State Society and published in the name of the various county societies. William H. Mayer, Committee on Public Relations, The Medical Society of the State of Pennsylvania.

Drugs and Medicines of the United States Pharmacopoeia and the National Formulary.—A display of official drugs and their preparations. The Pennsylvania Pharmaceutical Association, Harrisburg.

The Evaluation of Radium and Roentgen Rays for the Treatment of Malignant Disease.—Exhibit of photographs, charts, and drawings illustrating results of various procedures for administering radium and roentgen rays in the treatment of malignant disease. Bernard P. Widmann, Radiologic Department, Philadelphia General Hospital, Philadelphia.

Facts About the State Society.—Charts giving some facts about The Medical Society of the State of Pennsylvania including medical defense, medical benevolence, and other activities which are not described in separate scientific exhibits. Walter F. Donaldson, The Medical Society of the State of Pennsylvania.

Pneumoconiosis and Pneumothorax.—Pathologic and histologic demonstrations of pneumoconiosis, experimental and clinical features of pneumothorax, and the clinical effects of diaphragmatic elevation. Burgess Gordon, Philadelphia, and Robert K. Charr, White Haven.

Health Service Being Rendered by the Emergency Child Health Committee.—Maps and graphs illustrating the work of the Pennsylvania Emergency Child Health Committee. Samuel McC. Hamill and Miss Mildred Morse, Emergency Child Health Committee, Commonwealth of Pennsylvania.

Pyelograms Showing Various Causes of Hydronephrosis.—Roentgenograms of pyelographic studies of cases exhibiting numerous causes of hydronephrosis. Peter P. Mayock and William Baurys, Urologic Service, Nanticoke State Hospital, Nanticoke.

Moulded Plaster Splints in Lower Forearm and Leg Fractures.—Roentgen-ray films showing retention of bone fragments with plaster splints after early correction of displacements. Frederick W. Heyer, Nanticoke Hospital, Nanticoke.

Technic of Contraception.—What and how to teach the patient. An evaluation of the common methods. The "safe period." Harmful and dangerous methods.

A detailed description of the occlusive diaphragm technic. Analysis and discussion of results in 700 cases advised in a private practice. A preliminary report of experience in a hospital postnatal clinic. Lovett Dewees, Ardmore, and Owen J. Toland, Philadelphia.

Methods for Studying the Action of Drugs.—Demonstrations of laboratory methods for studying the action of drugs by the use of animals. A. E. Livingston, Department of Pharmacology, Temple University School of Medicine, Philadelphia.

Intracranial Hemodynamics.—An exhibit of some principles of intracranial hemodynamics. J. Garrett Hickey and Morton J. Oppenheimer, Temple University School of Medicine, Philadelphia.

Foreign Bodies in the Air and Food Passages.—An exhibit of unusual features of various groups of cases, especially with reference to roentgenologic diagnosis and the solution of mechanical problems. The technic of biplane fluoroscopic guidance. The latest developments in special apparatus. Chevalier L. Jackson, Temple University Hospital Bronchoscopic Clinic, Philadelphia.

It is suggested that each member read carefully the foregoing descriptions of the scientific exhibits so that he may select those which interest him most. By making note of which exhibits he wants to inspect, the visiting physician can cover this feature of the convention most effectively in a minimum amount of time. In this way greater benefits will be obtained than if no plan is followed.

Many of the newer developments in medicine will be stressed. However, those which become more valuable as their familiarity increases will not be forgotten. Besides the purely scientific material, there will also be exhibits relating to hospital organization, medical economics, public relations activities, important facts about the State Society, and the service being rendered by the Emergency Child Health Committee.

The various activities of the State Society will be portrayed by 6 different exhibits. The Commission on Maternal Welfare will exhibit the results of some of its work, showing particularly the outstanding causes of maternal deaths. At the booth of the Committee on Medical Economics, county medical society officers may learn about the functions of committees on medical economics. The value of the periodic health examination will be stressed by the Public Relations Subcommittee on Periodic Health Examinations, while the Public Relations Committee proper will portray some of its many activities in a separate exhibit. Maps and graphs illustrating the work of the Pennsylvania Emergency Child Health Committee will be exhibited by that group. Certain other important facts about the State Society's activities will be presented in an exhibit under the general sponsorship of the society.

THE TECHNICAL EXHIBIT

One of the most interesting features of the Eighty-fifth Annual Convention is the Technical Exhibit. It will be located in the main lobby of the Farm Show Building and open for inspection from 8:30 a. m. to 6:00 p. m. daily except Thursday, when it will be closed at 3:00 p. m.

This exhibit offers an excellent opportunity for the medical profession to become acquainted with the latest developments and most important achievements in all medical fields. Here those interested may inspect a considerable portion of the year's output of books, discuss with factory representatives both the newer and older pharmaceutical and biologic supplies, watch technically trained experts demonstrate the apparatus developed from last year's scientific research, and become acquainted with the latest food products. The exhibit provides a liberal education in the proper armamentarium of the modern physician.

In charge of each exhibit will be a representative of the exhibiting firm, whose chief purpose is not to close sales but to acquaint physicians with the products he represents by explaining their technical advantages, demonstrating their usefulness, and answering questions about them. A leisurely visit through the Technical Exhibit is similar to a postgraduate course.

Since practically all activities of the convention will be centered in the Farm Show Building, each physician will find it convenient to visit the Technical Exhibit.

To indicate the scope of this exhibit, a list of the participating firms is arranged according to the type of product displayed. Look it over carefully. Doubtless there is something in which you are interested. Do not fail to take advantage of the opportunity afforded by the Technical Exhibit.

Chemical, Biological, and Pharmaceutical

Abbott Laboratories, N. Chicago, Ill.
 Bilhuber-Knoll Corp., Jersey City, N. J.
 Bowman, Mell & Co., Harrisburg, Pa.
 Davies, Rose & Co., Ltd., Boston, Mass.
 Durst, S. F., Philadelphia, Pa.
 Fougere & Co., Inc., New York City.
 Gilliland Laboratories, Marietta, Pa.
 Hynson, Westcott & Dunning, New York City.
 Lederle Laboratories, New York City.
 Maltbie Chemical Co., Newark, N. J.
 McNeil Laboratories, Philadelphia, Pa.
 Merck & Co., Inc., Rahway, N. J.
 Merrell Co., Wm. S., Cincinnati, Ohio.
 Mutual Pharmacal Co., Inc., Syracuse, N. Y.
 National Drug Co., Philadelphia, Pa.

Squibb & Sons, E. R., New York City.
 Tailby-Nason Co., Cambridge, Mass.
 Vale Chemical Co., Allentown, Pa.
 Zenmer Co., Pittsburgh, Pa.

Electrical Apparatus

Electro-Therapy Products Corp., Philadelphia, Pa.
 High Tension Corp., New York City.

Electro-Diagnostic Instruments

Cameron Surgical Specialty Co., New York City.
 Lentz & Sons, Charles, Philadelphia, Pa.
 Wasserott Bros. & Co., Wilkes-Barre, Pa.

Foods

Davis Co., R. B., Hoboken, N. J.
 Gerber Products Co., Fremont, Mich.
 Health Products Corp., Newark, N. J.
 Heinz Co., H. J., Pittsburgh, Pa.
 Horlick's Malted Milk Corp., Racine, Wis.
 Libby, McNeil & Libby, Chicago, Ill.
 Mead Johnson & Co., Evansville, Ind.
 Mellin's Food Co., Boston, Mass.
 M & R Dietetic Laboratories, Inc., Columbus, Ohio.
 S. M. A. Corp., Cleveland, Ohio.

Insurance

Medical Protective Association, Wheaton, Ill.
 U. S. Fidelity & Guaranty Co., Harrisburg, Pa.

Medical Publications

Form Publishing Co., New York City.
 Lippincott Co., J. B., Philadelphia, Pa.
 Mosby Co., C. V., St. Louis, Mo.
 Saunders Co., W. B., Philadelphia, Pa.

Mineral Water

Kalak Water Co., New York City.

Physicians' and Hospital Equipment

Coward Shoe Co., New York City.
 DeVilbiss Co., Toledo, Ohio.
 Feick Brothers Co., Pittsburgh, Pa.
 Harrisburg Surgical Co., Harrisburg, Pa.
 Lepel High Frequency Laboratories, New York City.
 Physicians Supply Co. of Phila., Philadelphia, Pa.
 Sorensen Co., Inc., C. M., Long Island City, N. Y.

Physiologic Supports

Camp & Co., S. H., Jackson, Mich.

Prescription Opticians

McIntire, Magee & Brown Co., Philadelphia, Pa.

Pharmacists

McKenna Pharmacy, Pittsburgh, Pa.

Miscellaneous

Holland-Rantos Co., Inc., New York City.
 Philip Morris Co., New York City.

EDITORIALS

LAST CALL FOR THE ANNUAL MEETING

This is the last call for the Eighty-Fifth Annual Convention of The Medical Society of the State of Pennsylvania, to be held at Harrisburg, Sept. 30 to Oct. 3, 1935. Attendance upon the annual session of the State Society should be your outstanding obligation each year.

It needs to be remembered that the convention is the field day of the doctors. The papers presented may represent long years of study and experiment. The results for the most part are presented with cautious qualification, not with the finality which appears in the brief excerpts of addresses that reach the general public through the lay press.

There is, however, something dramatic and encouraging about a convention. It constitutes an army of defense against the ills to which flesh is heir, encamped at the convention city, and includes men of brilliant ability and high reputation. They come together to exchange experiences, to share knowledge and to mark their mutual progress in an unending quest for the causes of disease and the best method of cure. They have their differences and disagreements, but the purpose which brings them together is universally approved.

This meeting of the State Society will be the first meeting to be held at Harrisburg since the completion of the new structure constituting the Home of the Society, 230 State St. Our members and the Woman's Auxiliary are urged to inspect this building, which will be open from 9 a. m. to 5 p. m. You will be very agreeably surprised. The front of the edifice is reproduced on the outside cover of this number of the JOURNAL.

The scientific program, which appeared in the August number of the JOURNAL, shows the very satisfactory end results of the activities of the Committee on Scientific Work, under the chairmanship of Stanley P. Reimann, Philadelphia. It should be carefully read by each one expecting to be in attendance, in order to select those papers and discussions that will best meet the needs of the respective member, noting carefully the room, the date, and the time the paper will be read.

The annual meeting provides further for the members of the State Society the opportunity to keep in touch with the material advancement

of medicine through the scientific and technical exhibits. Attendance, too, not only affords an opportunity to make professional and personal friends throughout the state but, above all, it leads to a fellowship and coöperation, which are essential to the welfare and improvement of any medical group.

The reports of the officers, committees, *etc.*, are published in this, the Annual Convention Number of the JOURNAL. This engenders a very desirable interest and stimulates an increased activity on the part of the membership. It is obligatory for the members of the House of Delegates to read and digest these reports, that they will be duly informed upon a great deal that will demand their official attention. This will afford ample opportunity of giving thought to these various matters previous to the meetings of the House of Delegates. The plan of publishing the reports previous to the annual meeting not only should expedite the business of the House of Delegates, but increase the efficiency of its deliberations.

The hotel headquarters will be the Hotel Penn-Harris. Upon arrival at Harrisburg, each member should take up his hotel reservation. Registration at the headquarters of the State Society at the Farm Show Building, Cameron and Maclay Streets, is most essential. Register immediately. The registration booth, which will be open daily throughout the convention from 9 a. m. to 6 p. m., will be located at the left end of the Technical Exhibit. The meetings of the House of Delegates and the Board of Trustees, the general meetings, the section meetings, the Scientific Exhibit, and the Technical Exhibit will be conducted at the Farm Show Building, which has parking space for 5000 automobiles.

Under the supervision of Harvey F. Smith, of Harrisburg, chairman of the Committee on Arrangements, the Dauphin County Medical Society, the host, has the stage all arranged for the meeting. If you have not completed your hotel arrangements, communicate immediately with Dr. Clarence R. Phillips, chairman of the Committee on Hotels, 924 N. Third St., Harrisburg.

Be sure to include in your daily itinerary visits to: (1) The Scientific Exhibit, which is of increasing value each year, and contains a wealth of clinical material and practical demonstrations; (2) the Technical Exhibit, which will bring to you the latest achievements in instru-

ment manufacture, apparatus, drugs, and other exhibits of allied interest.

The Woman's Auxiliary has arranged a very alluring program, which should appeal to the women and create in them the urge to attend. The sessions of this group have assumed gigantic proportions, and their endeavors are far-reaching.

Those who anticipate motoring to Harrisburg will find a road map on page 980 of this JOURNAL. The scenery is gorgeous.

Those who will travel by rail to Harrisburg are especially urged to follow specifically the instructions given in "Reduced Railroad Fare From Harrisburg," to be found on page 1055 of this number of the JOURNAL.

In order to make the convention machinery function with the least amount of friction, members are urged to be seated promptly at the various meetings. More especially is this of import at the opening day of the General Session. It is not unusual for the General Session to be delayed half an hour in opening. This is a discourtesy to the laymen who have accepted a place on the program. They have their appointments and should not be unduly detained because of our indifference to conventionalities.

Presiding officers of the various sections should call the meetings to order on time. If the members realize this is the orderly procedure, they will be punctual in arriving.

Make every effort to attend the Convention!

TO THE REPORTERS OF MEDICAL SOCIETIES

We desire to express grateful appreciation to those reporters of the component county medical societies who have been most loyal and faithful in sending in reports during the fiscal year which terminates with this issue of the JOURNAL. A greater number contributed than heretofore. May we bespeak your continued interest.

We should like to have all 60 counties regular contributors for the ensuing year. There is no reason why it should not be consummated.

The officers of county medical societies whose reports are not being published should urge their respective reporters to cooperate by sending regularly to the JOURNAL office, and as early as feasible, completed reports of each meeting. The reports should give a reasonably understanding abstract of each paper read; the essential features of the discussion; and any reference to matters approved during the business meeting that will be of interest to other county medical societies.

The publication of the reports of the meetings of our county societies constitutes one of the most valuable departments of the JOURNAL. These reports show what is being done in scientific medicine in the respective counties and relate many of their activities. When filed, they constitute permanent records of inestimable value to the historian.

The reports constitute a wonderfully compiled monthly released postgraduate course for our members.

We are grateful, too, in full measure to those divers reporters of other medical meetings so essential as an integral part of the JOURNAL. They have been most willing, and their spirit of cooperation worthy of emulation.

AMERICAN MEDICAL DIRECTORY

A new edition of the American Medical Directory is now being compiled. A card is being mailed to all physicians of the United States in order to insure the accurate listing of name and address. There is no charge for publishing the data in this book, nor does the physician assume any obligation in any way. We sincerely trust our members will cooperate with the American Medical Association by returning the card properly filled in at the very earliest possible moment after its receipt.

SPEAK TO BE HEARD AT SOCIETY MEETINGS

We are extremely eager to secure the cooperation of our members to speak sufficiently loud to be heard by those assembled for the respective meetings.

Remember that the assemblage in a room wants to hear; this is why they attend, and all speakers should regulate their voices that those present may have no difficulty in hearing. To travel the distance many do to attend the annual meeting to listen to certain papers and not to be able to hear the speaker is disheartening. There is no excuse for poor articulation.

There are some men who speak in public in a low tone, who normally have a weak voice, who do not bear in mind that they are addressing an audience, and hence, never seem to realize the necessity for raising their voice.

There is the individual who invariably looks at the floor, when speaking, and to add to the difficulty of transmitting the voice, walks to and fro.

We beseech the attention of the members to this very important detail. We would urge all

speakers to stand firmly on their feet, keep their heads raised, and speak sufficiently loud that the farthest away person in the audience may hear. This is imperative.

If members are unable to hear a speaker, they should have no hesitancy to arise to a point of order, and request the speaker to speak more loudly. To call out "louder" from the audience is not always met with response.

Section officers should be alert in this matter, and sense the situation, and request a speaker to raise his voice. It will greatly enhance the value of the meetings.

HOSPITAL ECONOMICS

There has been a great deal of discussion in regard to the attitude of certain hospitals that will not permit members of the staff to render bills for services to full-pay ward patients, notwithstanding the fact that the courts have passed upon the legality of this procedure.

The Section of Hospital Economics of the Commission of Medical Economics of the Philadelphia County Medical Society has submitted its annual report which appears in *The Weekly Roster and Medical Digest*, July 13, 1935.

One of the chief objectives of this committee was the establishment of better understanding and accord between the Philadelphia Hospital Association and the Philadelphia County Medical Society. Preliminary contacts resulted in a joint meeting composed of representatives of each group, held in The Philadelphia County Medical Building on January 8, 1935. The findings of a state-wide survey of 159 hospitals were discussed in order to determine the attitude of these institutions toward the right of the physician to render a bill and be paid for services rendered full-pay ward patients. It was found that 141 hospitals allowed staff physicians to make a charge for services rendered by them to full-pay ward patients. This group included the large hospitals in the Pittsburgh area, but not those in Philadelphia, the majority of which refused the right of physicians to charge full-pay ward patients.

Under present economic conditions, the section declares that a full-pay ward patient is not a charity patient, and unanimously recognizes the right of physicians to make a charge for services rendered to full-pay ward patients.

The joint committee makes the following recommendations: A full-pay ward patient may be charged a fee; this fee should not exceed \$25 (see exception below); the fee should not be charged until the physician has consulted the

proper administrative authority, of the hospital, etc.; the physician shall render his own bill; the physicians who are eligible under this ruling to be members of the visiting or regular staff; these recommendations do not apply to those institutions that already have satisfactory working plans established to meet this condition. Exception: One member of the hospital association committee disagreed with the exception referred to believing that owing to the varying character and length of illness, the fee should not be limited, but should be commensurate with the service rendered. The chairman of The Philadelphia County Medical Society Section was in accord with this opinion.

This committee also proposes to make recommendations regarding the following: A physician's lien law, and a protest with recommendations regarding the recent ruling of Judge Marks, not of Philadelphia, but sitting in the Philadelphia Orphans Court, which is eminently unfair to the hospital physicians in that it prohibited the payment of a bill rendered by an accredited hospital surgeon to a full-pay ward patient, in spite of the fact that it was known the patient, upon decease, left an estate of nearly \$10,000.

THE NEW MAGAZINE OF THE AMERICAN HOSPITAL ASSOCIATION

With the publication of the convention number, which will be in the mails September 24, the *Quarterly Bulletin of the American Hospital Association* will make its last appearance. For more than 8 years the *Bulletin* has served the hospital field. It will retire to make a place for a new publication—*American Hospitals*. The *Bulletin* has been worth while. It has supported whole-heartedly every worthy hospital purpose. It has condemned all that was unworthy. It has tried to bring to the field the best of hospital literature and a service of proven value.

The *Bulletin* has had its limitations from an editorial standpoint, but it takes reasonable pride in the constructive service it has rendered through the years and the good will it has created and maintained for the American Hospital Association and its membership.

The time and season are appropriate for the *Bulletin* to retire from its labors and to pass on to a better and a larger magazine the duties and responsibilities of the official publication of the association.

American Hospitals will meet every requirement of an ethical, constructive hospital magazine. It will serve the field as a forum for the presentation of hospital problems, the discussion

of hospital policies, and the promotion of hospital service to patients and the public.

The *Bulletin* makes the above reference in an editorial in the issue of August, 1935.

Congratulations upon the accomplishments of the *Bulletin*. Best wishes for *American Hospitals*, the first issue of which will appear Jan. 1, 1936.

A CORRECTION FOR THE PEDIATRIC SECTION SCIENTIFIC PROGRAM OF THE ANNUAL SESSION

In the August, 1935, number of the PENNSYLVANIA MEDICAL JOURNAL, page 895, top of column 1, under the program of the Section on Pediatrics, is a statement that at the informal subscription banquet which is being tendered for members and friends of the Pediatric Section, in honor of J. P. Crozer Griffith, that Dr. Griffith will present a paper entitled "History and Recollections in the Development of Pediatrics in Pennsylvania."

We are in receipt of a letter from Dr. Griffith to the effect that his remarks will be limited to "History and Recollections in the Development of Pediatrics in Philadelphia," and not Pennsylvania.

REPORTS OF OFFICERS, COUNCILORS, COMMITTEES, AND COMMISSIONS

REPORTS OF CHAIRMAN OF THE BOARD OF TRUSTEES, EDITOR, COMMITTEES, AND COMMISSIONS

The original reports should be read by our membership for their general information, and by the members of the House of Delegates to expedite business at the annual meeting of the House.

Report of the Board of Trustees.—The trustees submit their recommendations as to the revision of the present boundaries of the councilor-districts (see proposed changes in the By-laws, in the June number of the JOURNAL, page 741. The board sustained the action of the Publication Committee, making the tenth day of the previous month the final day for the receipt by the JOURNAL office of material for publication in THE PENNSYLVANIA MEDICAL JOURNAL for the following month. The board announces its disapproval of the acceptance of advertisements of alcoholic beverages. A warning is issued regarding suits for alleged malpractice arising from the use of roentgen-ray and electric physical therapy apparatus by the inexperienced. The attention

of the membership is called to the need of mentioning THE PENNSYLVANIA MEDICAL JOURNAL when writing to our advertisers. The net cost to the society of publishing the JOURNAL is largely dependent on membership support of our advertisers who now pay approximately one-third of the gross costs. Many informative references to emergency medical relief are contained in this report.

Report of Councilor George C. Yeager, First Councilor District.—The councilor district meeting was held Apr. 10. Annual Interns' Night was held for the second time; it was announced that 4 prizes of at least \$25 each would be offered. The seminar program was extensive; one of the outstanding features was the medico-dental seminars.

Report of Councilor Edgar S. Buyers, Second Councilor District.—Almost all of the suits entered for alleged malpractice in this district have a basis related to insufficient experience with the diagnostic or therapeutic use of roentgen-ray or physical therapy apparatus. The councilor cautions against these vital sources of litigation. The councilor district meeting was held Sept. 19. The Schuylkill County Society deemed it inadvisable to enter into the activities of the Emergency Child Health Program; it is the only society in the district accepting the postgraduate offer of the State Society; during the year a woman's auxiliary was organized.

Report of Councilor Frederick J. Bishop, Third Councilor District.—The councilor repeats the recommendation of last year, the development of home talent for the scientific programs. He also repeats the precaution of frequent use of the roentgen ray, or signature by the proper person to the roentgen-ray release blank in fracture cases if roentgen-ray aids to diagnosis are refused. The councilor district meeting was held July 31.

Report of Councilor E. Roger Samuel, Fourth Councilor District.—The councilor district meeting was held July 11. The councilor is of the opinion that members of his district are not appreciative of the district meetings, if attendance is an indicator; he deplores the poor attendance.

Report of Councilor Clarence R. Phillips, Fifth Councilor District.—The councilor expresses recognition of the splendid service rendered the health interests of the people of Pennsylvania by the physician members of the 1935 legislature.

Report of Councilor Augustus S. Kech, Sixth Councilor District.—Blair County Society is preparing for a postgraduate study course; Clearfield County has completed its first course. The councilor district meeting was held May

16. The councilor stresses the need for all the membership to read the State Society JOURNAL.

Report of Councilor David W. Thomas, Seventh Councilor District.—The annual councilor district meeting was held July 12. All county societies with the exception of 2 have been very active in the emergency child health work; these 2 however have agreed to coöperate.

Report of Councilor George A. Reed, Eighth Councilor District.—The councilor district meeting was held Aug. 1 in conjunction with the ninth district.

Report of Councilor Alexander H. Stewart, Ninth Councilor District.—The report favors joint meetings of councilor districts.

Report of Councilor Robert L. Anderson, Tenth Councilor District.—The councilor district meeting was held May 9. Formal graduate educational courses are offered by 2 of the counties in the district. The councilor is more forcibly impressed with the need of wise leadership by physicians in all community health problems and in many of the social and economic questions now dismaying the commonwealth.

Report of the Editor—The editor has endeavored to outline the various features that appear each month in the JOURNAL with the hope of making the membership more JOURNAL-conscious, that they will see the need for carefully reading each month the JOURNAL which is the official house organ of the State Society.

Report of Committee on Public Health Legislation.—Due credit is given to the support of the county society members.

Report of Committee on Necrology.—There were 145 deaths.

Report of Committee to Confer with Governmental and Private Health Agencies.—It recommends that each county society add to its list a Committee to Confer with Governmental and Private Health agencies, to be comparable to the state committee.

Report of the Committee on Mental Hygiene.—The membership has profited by the editorials contributed to the JOURNAL by the chairman of this committee, J. Allen Jackson.

Report of Commission on Cancer.—The commission continues the request that each of the county medical societies hold at least one cancer meeting during the year. The annual Prize Essay Contest for Nurses of Pennsylvania will be continued next year. The commission has developed a film for cancer control to be demonstrated to lay audiences. The projector, the screen, and the film may be obtained from the librarian at the State Society office in Harrisburg, Pa. There will be a flat charge of \$2.50

to county medical societies requesting and using the film to be applied to shipping charges.

Report of Committee on Telephone Directory Classification.—The committee is always ready to act upon any information sent to them.

Report of Committee on Workmen's Compensation Law.—This report shows the need for unanimity of action in matters before the state legislature.

Report of Medical Advisory Committee to the State Emergency Relief Board.—Many of the difficulties are due to misunderstandings and to shortage of funds; the committee will continue to press for additional funds until misunderstandings have been adjusted. Read carefully the last paragraph of the report.

Report of Committee on Medical Benevolence.—Every member of the State Society should lend practical help to this fund.

Report of Committee on Archives.—District Councilor Edgar S. Buyers, in his report for the second councilor district, states that the remaining county history of the district will be presented this year.

Report of Commission on Maternal Welfare.—Fifty-two county societies have appointed a committee on maternal welfare. The necessary forms for investigation have been distributed to each county chairman. If any counties were missed inadvertently, kindly communicate immediately with the chairman of the commission to forward the same.

Report of Committee on Conservation of Vision.—The most outstanding activities pertained to legislative work.

Report of Committee on Appendicitis Mortality.—Talks have been given to high schools; surveys are being conducted; warning stickers have been supplied, etc.

Report of Committee to Study and Report on Forms of Medical Practice in State-Owned Schools and Colleges. This report also includes state-aided schools and colleges. An absolute definition of contract practice, within the meaning of the term "reasonable competition," is submitted. This report is based on a stupendous undertaking, and requires reading.

Report of Committee on Medical Economics.—This report must be read to be better understood. The committee believes that many of the economic problems now confronting the profession have their origin in certain phases of the present system of medical education and recommends that a commission be appointed to study this subject satisfactorily and report at a subsequent meeting of the House of Delegates.

Progress Report of the Chairman, Emergency Child Health Committee.—This report should be

read to form an idea of the extensive work being done in this field.

Report of Committee on Public Relations.—The work done by this committee has been voluminous, and the report should be read for the information it conveys to every member.

Report of Secretary.—The membership is urged to read in full this report for the wealth of information it affords and the recommendations it contains.

Report of Committee on Physical Therapy.—The report of this committee shows what can be done if all the county societies would take advantage of the opportunity.

Report of Committee on Postgraduate Education.—This report distinctly shows what can be accomplished in this field if the various county societies would only take advantage of the opportunities afforded.

Report of Managing Editor.—This contains the annual report of the activities of the Harrisburg office.

PROCEEDINGS OF THE ATLANTIC CITY SESSION OF THE AMERICAN MEDICAL ASSOCIATION

The following is an abstract of the minutes of the meeting of the House of Delegates of the A. M. A. held at Atlantic City, June 10-14, 1935. The minutes in full are published in the *Journal of the A. M. A.*, June 22 and June 29, 1935.

The terms of 2 men who have given long and capable service to the House terminated on this occasion and since, by the Constitution and By-Laws of the Association, they could not be re-elected, Dr. J. H. J. Upham, who has served with distinction as a member of the Board of Trustees since the year 1923 and recently as its chairman, was retired under this ruling and Dr. James R. Bloss of Huntington, W. Va., was elected to succeed him. The term of Dr. Joseph A. Pettit, who has served on the Board since 1925, terminated, and Dr. Ralph A. Fenton of Portland, Ore., was elected. The terms of these new trustees will terminate in 1940. At the session of the Board of Trustees immediately following this election, Dr. Rock Sleyster of Wauwatosa, Wis., was selected by the board as its chairman and Dr. Austin A. Hayden was re-elected as secretary. In addition to selecting Dr. James Tate Mason of Seattle as president-elect, the House of Delegates chose Dr. Kenneth A. Lynch of Charleston, S. C., as vice-president and re-elected Dr. Olin West of Chicago as secretary and Dr. Herman L. Kretschmer of Chicago as treasurer. Dr. Nathan B. Van Etten of New York was selected speaker of the House of Dele-

gates to succeed Dr. F. C. Warnshuis, and Dr. H. H. Shoulders of Nashville, Tenn., became vice-speaker.

The president of the association, Dr. James S. McLester, announced the appointment of Dr. George Edward Follansbee of Cleveland to succeed himself as a member of the Judicial Council, terminating in 1940, Dr. Reginald Fitz of Boston to succeed himself on the Council on Medical Education and Hospitals until 1942, and Dr. A. A. Walker of Birmingham, Ala., on the Council on Scientific Assembly for a period of 5 years. By an almost unanimous choice the House of Delegates selected Kansas City as the meeting place for the eighty-seventh annual session of the Association in 1936.

Dr. Mason was born in Virginia, May 20, 1882. His father was Dr. Claiborne Rice Mason of Lahore, Orange County, Va. After receiving his M.D. degree from the University of Virginia Department of Medicine in 1905, Dr. James Tate Mason entered the practice of surgery first in Philadelphia and then at Franklin, Wash. Later he took up his residence in Seattle, where he has practiced surgery since 1909.

The following Pennsylvanians served on reference committees: Walter F. Donaldson, Medical Education; Samuel P. Mengel, Legislation and Public Relations; and J. Newton Hunsberger, Amendments to Constitution and By-Laws.

President Walter L. Bierring in his address said in part:

The evolution in medical training has brought in its wake many changes affecting the economic and professional status of the practicing physician, besides distinctly extending the functions and activities of the American Medical Association in many new directions.

The impact of the laboratory in diagnostic procedure, the expansion of hospital facilities, the unusual growth of specialism and the development of industrial and preventive medicine have been factors influencing the changing order of medical practice and the cost of medical care.

The delivery of medical service under the new order has gradually engaged an army of nonmedical personnel, such as hospital administrators, laboratory technicians, and social service workers, and this, with a constantly increasing nursing profession, has not only added to the burden of illness but, what was possibly more significant, had the tendency to inject influences from without the medical profession affecting the control and character of the medical service to be rendered.

It followed as a natural sequence that various philanthropic agencies and foundations assumed the obligation of determining by means of extensive surveys and statistical studies the increasing cost of medical care as compared with that of a generation ago, and likewise venturing a remedy, culminating in the proposals during the past year of the plans for compulsory health and sickness insurance to be established by federal and state legislative action.

It has meant a reëducation of our membership as well as of the public regarding the dangers and disappointments attending the operation of systems of compulsory health insurance in the older countries, more accurate information of existing medical economic conditions in the United States, and definite basic principles that must govern the solution of our particular problems.

Thoughtful men and women are becoming convinced that private practice will continue to promise the best service for all concerned and insure its high quality. Perhaps the greatest accomplishment of this campaign of education has been the effect on legislation favoring compulsory health insurance and the government control of the practice of medicine.

In certain social and economic security measures introduced in Congress, all reference to health or sickness insurance was eliminated, and bills proposing plans for compulsory health insurance presented in 1 or 2 state legislatures were unsuccessful and did not even come up for passage. We must also by no means underestimate the significance of the fact that national legislation favoring compulsory health insurance was not only prevented but not even incorporated in any measure presented by Congress.

Change in methods of medical education has always gone hand in hand with the changing order of the practice of the art.

Various studies and surveys within recent years indicate that the needs and demands for medical service are not entirely fulfilled by the prevailing scheme of medical training. The increasing number of medical graduates each year beyond the ability of society to reward adequately is attended by definite social dangers.

The House of Delegates at the last annual session authorized a resurveying of existing medical schools under the supervision of the Council on Medical Education and Hospitals, with special reference to faculty personnel and to facilities for clinical teaching, with due regard to the number of students admitted in order to determine whether the institution concerned is able to meet the educational demands of this period and the future practice of medicine. This action is most timely, but it is a difficult task and is being most conscientiously carried out though entailing more responsibility even than the inspections and classifications of medical schools made 20 and 25 years ago.

It was a wise provision to delegate to the Council on Medical Education and Hospitals the supervision of the qualifications of the different medical specialties, which ensures the highest quality of specialized practice for the future.

It is proper to indicate certain inherent dangers connected with 2 movements in the interest of the public welfare incident to the present emergency period. The administration of federal emergency medical relief is closely integrated with governmental supervision. The organized medical profession is sympathetic with the humanitarian purpose of this movement but cannot entertain the same feeling toward the extension of the administrative features beyond the present emergency period.

There is probably no wider appreciation of the magnitude and comprehensive nature of the public health program contemplated in the social security act, soon to be enacted into law. Fully recognizing the need for the extension and strengthening of public health services in rural and other areas which are without adequate services of this kind, one must yet realize that the large sums of money to be allotted to each state annually are far beyond any previous state budgets for public

health purposes and that no definite plans have been developed for their proper expenditure.

While the responsibility for carrying out this extensive program is properly placed with the health officer of each state, it becomes the duty of the organized medical profession to assume its share in determining between preventive and curative medicine and to see that the interests of the public health and the medical profession will be equally protected.

REPORT OF THE JUDICIAL COUNCIL

It is a practice in a few constituent associations to admit to membership in the state association (1) physicians who are nonresidents of the state and therefore not members in any component society of the state, or (2) physicians resident in the state who for some reason are not members of the county society where they live or practice. Such a procedure is reprehensible in a democratic organization such as the American Medical Association. Membership in 2 state associations is as inconsistent as being a voter in 2 states or 2 congressional districts. Furthermore, representation in the House of Delegates is based not on the number of members in the county societies of the states, but on the number of members in the state association. A state association that carries on its membership roll nonmembers of the component societies may very possibly have an unjustified representation in the House. In the opinion of the Judicial Council, membership in a component society should absolutely be essential to membership in a state association.

The Judicial Council in the past has made recommendations to the House of Delegates which, by their recognition and adoption throughout the constituent associations, have resulted in improved conditions under which medical service is made available to the public. Reference especially is made to discussions and pronouncements regarding all forms of contract practice, whether by individual or grouped physicians, hospitals, dispensaries, teaching institutions, or insurance or industrial companies. Much remains to be accomplished, but the course has been clarified and more complete progress awaits only the appropriate action of the chosen representatives of our county, state, and national medical organizations. Discussions formerly confined to medical society programs and publications have become public property, and in the public press economic, social, and legislative problems having health features, whether such problems are of local or of national interest, are generally acknowledged as the responsibility of the medical profession. With this widening recognition, however, has come a growing convergence of public attention on the motives and the professional activities of the members of our profession, and it is to the disciplinary responsibility of component societies for the ethical conduct of their members that the Judicial Council wishes to call attention at this time.

In general, the Principles of Medical Ethics are accepted as a guide in professional relations and are intelligently and faithfully followed by a large majority of the profession. There are, however, more or less isolated instances in which this is not true. The delinquents comprise individuals, groups, and institutions. Solicitation of patients, particularly in industrial practice, unfair competition by clinics and groups, and unethical and unlawful practice of medicine by hospitals, dispensaries, insurance companies, and universities are examples.

Ordinarily under present by-laws of county, state, and national associations procedure to correct an un-

ethical practice must be instituted in the county medical society by the preferring of charges, which in practice is left to some individual who feels aggrieved. Few individuals deem it their personal responsibility to prosecute a breach of ethics that affects them personally but little, but which may affect the profession of medicine in a major degree. The institution of charges by an individual in such cases of general concern might very probably in many instances amount to professional suicide, and seldom does any individual desire to place himself on his own initiative in the position of prosecutor for the benefit of the profession as a whole and bring on himself the unfriendliness and antagonism of colleagues often in influential positions. Numerous are the complaints against the situation cited and many are the demands that medical organization correct for its members that which medical organization has pronounced unethical and harmful and which the members cannot correct for themselves. Last year the House of Delegates amended its Principles of Medical Ethics so clearly that there can be no misunderstanding of the conditions mentioned; but the present method of procedure of preferring charges makes the pronouncement ineffective.

It might be advisable to extend the origination of charges in some situations manifestly too great for the county society to handle to the state association and possibly, in rare instances, to the national organization. There rarely would be infractions of such magnitude that the national association and seldom that the state associations should be the originator of any action toward discipline.

The council wishes to be distinctly understood that it is suggesting no infringement on or release from responsibilities now residing in the component county medical societies. On the contrary, its idea is to assist and complement those societies in performance of the duties now imposed on them and to supplement their activities by methods applicable to conditions and situations too general or too large to be handled within their limited jurisdiction. We commend to the House of Delegates the urgency of prompt and firm action by all component societies in enforcement of the provisions of the Principles of Medical Ethics that will support the growth of public confidence in the sincerity of our avowed ethical principles.

Some of the common causes of complaints could probably be controlled by a closer coordination between the various councils, particularly the Council on Medical Education and Hospitals and the Judicial Council. The Judicial Council, by the constitution, is the final authority on ethics. Medical ethics follows every member of the American Medical Association, whether in a hospital, a university, a clinic, or not. While the member in such institution is subject to the ethics of the profession, the institution itself as an entity is not, but through the Council on Medical Education and Hospitals sufficient oversight, persuasion and, if needed, pressure can be brought to accomplish what the doctors in such institutions, as individuals, cannot. With such cooperation between the 2 councils and such enforcing organization as has been suggested, many harmful and obnoxious practices now existing would cease and others not now presenting any large problem would be prevented.

REPORT OF THE REFERENCE COMMITTEE ON SECTIONS AND SECTION WORK

The report of the Council on Scientific Assembly is clear, concise, and to the point. It is with genuine

pleasure that your committee approves, in the highest commendatory manner, the efforts of the council in arranging the joint program in which the 2 greatest organizations in medicine on the American continent will participate; namely, the American Medical Association and the Canadian Medical Association. Such a program will redound to the glory of scientific medicine as it is known and practiced among the professions of these 2 nations, and it will do much to reflect to the world at large the good will, the professional feeling, and the kindred interests that have ever existed between these 2 great medical associations.

REPORT OF REFERENCE COMMITTEE ON MEDICAL EDUCATION

The resolution adopted by the Arkansas Medical Society, April 17, 1935, presented by Dr. Brooksher, would require pathologists and radiologists to become members of their respective county and state medical societies as a prerequisite for qualification as a specialist on the council's list. Your reference committee recommends the approval of the resolution in principle, with the application of the requirement of all graduates of and after 1930.

The resolution of the Board of Trustees of The Medical Society of the State of Pennsylvania, June 10, 1935, introduced by Dr. Walter F. Donaldson, urging the Council on Medical Education and Hospitals and the Bureau of Medical Economics to continue their endeavors until courses in medical economics have been established in all the medical colleges in the country, is recommended for adoption, with the suggestion that the council in collaboration with the Bureau of Medical Economics outline the principles to be covered in such a course.

REPORT OF THE REFERENCE COMMITTEE ON HYGIENE AND PUBLIC HEALTH

Resolved, That it is the sense of the House of Delegates of the American Medical Association that the broadcasting of matter coming from an adjoining country, which is untrue or dangerous, or both, as it pertains to public health, be brought to the attention of the Federal Communications Commission; and be it further

Resolved, That this commission be requested to take up through proper official channels any practices in radio broadcasting now existing, or which may hereafter exist, in an adjoining country in conflict with the foregoing declared principles, with the view of having such practices corrected.

REPORT OF BOARD OF TRUSTEES

The Board of Trustees desired to bring the following 3 subjects to the attention of the House:

1. INTEGRATION OF MEDICAL PROFESSION

The Board of Trustees has been advised that at least 2 states have had under consideration, and that one still has under consideration, the matter of the reorganization of the medical profession along lines similar to those that are being followed in a number of states for the reorganization of the legal profession, namely, by a process of what is known as "integration." Under this process the entire profession of the state is organized by law, or in the case of the legal profession, in some instances, under direction of the courts, into a public corporation or its equivalent. Every licensed practitioner in the state is by reason of his status as a licensed practitioner a member of the corporation and entitled

to a vote in its management. He pays such dues as the corporation imposes on him. The corporation, through its proper officers, passes on the qualifications of every person seeking a license to practice in the state, supervises their professional activities while they are licensed, and disciplines them as circumstances require in case of misconduct. Expulsion from the corporation and revocation of license are synonymous, for no one can practice who is not a member of the corporation.

It will be seen that under this system the profession is organized into a guild, as it were, and controls its own affairs, except that it has no right to pick and choose its members if they are morally and professionally qualified. It combines the functions of a medical licensing and examining board and of a state professional society. As has been pointed out, this kind of organization is being rather extensively followed by the legal profession. It has already been adopted by law in Oklahoma for the dental profession. It has been considered in one state and has been and still is being considered in another. It seems probable that other state associations will in due time give consideration to the form of organization described. For this reason, and in view of the revolutionary character of the change described, the Board of Trustees has deemed it best to submit it to the House of Delegates for determination of the policy of the association with respect to it.

2. IMMIGRANT PHYSICIANS

At the recent Chicago special session the House of Delegates adopted a resolution directing that efforts be made to procure such legislative action as might be necessary to stop entirely the "selective injustice to the American physician" resulting from the immigration into the United States of foreign physicians. This resolution was preceded by a preamble reciting that the immigrant physician was exempted from the limitations imposed by law on the immigration of foreigners into the United States, under the 1917 immigration law. The Board of Trustees has been advised that the immigration law of 1917 does not impose quotas on the several nations of the world with respect to the immigration of their nationals into the United States but limits the immigration of persons from foreign countries into the United States under prearranged contracts of employment. Physicians are exempted from the provisions of that act and may enter notwithstanding the fact that they come in under prearranged contracts. How many have done and are doing so, however, it has been impossible to ascertain. The quotas allotted to the several nations of the world for immigration into the United States were allotted by the immigration act of 1924, and under this act physicians are given no preference over other immigrants.

A study of the records of the Bureau of Immigration shows that the proportion of immigrant physicians entering the United States annually from and including 1931 to the number of physicians entering the medical profession by examination each year is lower than at any time since 1919, and the percentages in 1932 and 1933 were the lowest at any time since 1904, when records of this character first became available.

The board has been advised that it seems practicable to exclude immigrant physicians, not by depriving them of any privileges now granted them by reason of their status as physicians, but by making them a selected group against which restrictive legislation would have to be directed. Such legislation would take the form either of depriving them of their right to enter the United States under contracts of employment pre-

arranged or of imposing on them limitations not imposed on other quota immigrants. How far the number of immigrant physicians would be reduced by depriving them of their privilege of coming in under prearranged contracts of employment is uncertain, because no figures are available to show the number entering in that way. Whether the association desires to sponsor legislation undertaking to exclude physicians as a class even under the quota privileges to which they would otherwise be entitled is a matter of involving such serious public policy that it has seemed proper to submit the matter to the House of Delegates for further consideration before entering on that course.

3. COMMERCIAL USE OF THE WORD "DOCTOR"

The attention of the Board of Trustees has been called to the commercial use of the word "doctor" in connection with advertising, notably in connection with the advertising of shoes, in cases in which no doctor has had anything to do with the origination of the article advertised or with approving it from the medical standpoint. It has been urged that the association take steps to prevent the misuse of the word in that manner.

Obviously, the prevention of the misuse of the word "doctor" must depend to a large extent on state legislation, since federal legislation can apply only to interstate and foreign commerce. Even with respect to state legislation, difficulty arises because of the present misuse of the word "doctor" in other than commercial ways. Without considering such formerly honored titles as Doctor of Philosophy and Doctor of Laws, we now have Doctors of Osteopathy, of Chiropractic, of Naturopathy, of Podiatry, of Chiropody, and of other similar titles in which the doctor is to be debased. Legislation should begin, therefore, not in an effort to prevent the commercial misuse of the word "doctor" but in an effort to procure the enactment of legislation that will regulate the conferring of the degree of doctor and prevent its misuse for any purpose whatever. Along with this goes legislation to prevent fraudulent advertising of all kinds, whether by the misuse of the title "doctor" or otherwise. The matter is respectfully submitted to the House with the recommendation that it approve legislation such as is suggested here and commend for the favorable consideration of the several state associations.

The Speaker referred the first section of the report to the Reference Committee on Reports of Board of Trustees and Secretary. The second and third sections of the report were referred by the Speaker to the Reference Committee on Legislation and Public Relations.

REPORT OF REFERENCE COMMITTEE ON LEGISLATION AND PUBLIC RELATIONS

In reference to the supplementary report of the Board of Trustees in regard to the commercial use of the word "doctor" for commercial purposes, and particularly its fraudulent use for such purposes, the Reference Committee recommends that the correction of the evil be left to action under the several state laws concerning advertising and to action before the Federal Trade Commission.

REPORT OF THE REFERENCE COMMITTEE ON REPORTS OF OFFICERS

Your committee recommends that the Council on Medical Education and Hospitals, together with the Judicial Council, formulate a plan whereby all those associated in the delivery of medical service be included

in the investigation of hospitals for classification and that approval be based in the future on the ethical practices of the institution as well as on its scientific work.

Your committee further recommends that, in order to remove the menace which the Judicial Council reveals with respect to overlapping membership in state associations, the Constitution and By-Laws be so amended as to remove any further difficulty in assigning a member to the state in which he practices.

Finally, your committee records its disapproval of any plan of organization of the profession in the United States that permits a member to hold affiliation with the association in more than one state.

In order to effectuate the suggestions contained in this report, your committee requests the Judicial Council to submit such amendments to the Constitution and By-Laws of the association as are necessary to secure the purposes sought.

RESOLUTION REQUESTING THE PROPER AUTHORITIES IN THE WAR DEPARTMENT TO DISTRIBUTE "HYGEIA" IN THE CCC CAMPS

Dr. Ralph A. Fenton, Oregon, presented the following resolution, which was referred to the Reference Committee on Miscellaneous Business:

WHEREAS, The Civilian Conservation Corps, in its various camps throughout this country, is supplied with books and periodical literature by the War Department; and

WHEREAS, Such literature should promote the dissemination of approved health information; be it

Resolved, That the Director of the Civilian Conservation Corps, and the Surgeon General and other competent authority in the War Department be requested by this House of Delegates to contract for the supply of the magazine *Hygeia* to each CCC Camp, excluding any other so-called health magazine published by private interests for profit.

REPORT OF SPECIAL REFERENCE COMMITTEE

The Special Committee appointed to consider all resolutions concerning the control of reproduction begs leave to report that, after a careful study of these resolutions, it recommends that not any of them be approved as introduced. The committee desires to present as a substitute resolution the following, with this preamble: That the House of Delegates declares that nothing in the following resolutions be interpreted as a declaration or action either for or against birth control:

WHEREAS, Under the stimulus of large nonmedical groups, the general use of contraceptives is being advocated and encouraged despite the existing law, not only by the above-mentioned groups but by commercial interest as well; and

WHEREAS, The ultimate effect of these measures on the health and general welfare of the population of the United States is unknown if not questionable and should accurately and extensively be studied by the medical profession, in whose care the health of the people rests; and

WHEREAS, The laws, both federal and local, governing the physicians in their advice to individual patients, where such advice is given as a therapeutic measure, seem to be complicated, not well understood, and generally unsatisfactory, and their interpretation difficult; therefore be it

Resolved, That a special committee be appointed, after due consideration, by the Board of Trustees to study these related problems and to present at least a

preliminary report to the House of Delegates of the American Medical Association at the 1936 annual session; and be it further

Resolved, That the trustees be requested to appropriate the funds necessary in order to carry out the purposes of these resolutions.

Adopted.

The following applicants from Pennsylvania for affiliate Fellowship were approved by the Council on Scientific Assembly: A. A. Barton, Plains; David J. Goodfriend, Marie Severac, and Ernest A. Spiegel, all of Philadelphia.

This, the eighty-sixth annual session of the A. M. A., constituted a joint meeting with the Canadian Medical Association, the first time these 2 associations have met in joint session and proved to be a thoroughly satisfactory and profitable meeting. The Canadian Medical Association adopted a resolution inviting the American Medical Association to be their guests in a combined meeting to be held in Canada on or before 1940.

INTER-STATE POSTGRADUATE MEDICAL ASSOCIATION OF NORTH AMERICA

The International Assembly of the Inter-State Postgraduate Medical Association of North America will be held in the Masonic Temple, Detroit, Michigan, Oct. 14 to 18, with preassembly clinics on Oct. 12 and post-assembly clinics, Oct. 19, in the Detroit hospitals.

The association through its officers and members of the program committee extends a cordial invitation to all physicians in good standing in their state and provincial medical societies to attend the assembly. An unusual clinical and didactic program including all branches of medicine and surgery and the specialties has been arranged by the program committee, affording an excellent opportunity for an intensive week of postgraduate medical instruction. A list of distinguished teachers and clinicians who will take part on the program appears on page xi of the advertising section of this JOURNAL.

The registration fee of \$5 admits all members of the profession in good standing.

RELIABLE APPARATUS

The PENNSYLVANIA MEDICAL JOURNAL has received from the American Medical Association a small pamphlet containing a list of the apparatus accepted by the Council on Physical Therapy, the first one published under the direction and supervision of the council. In addition to the list and description of accepted apparatus, the pamphlet contains indications for the use of each type and a statement relative to efficacies and dangers.

This pamphlet is a real contribution on the part of the American Medical Association in behalf of rational therapeutics—an effort to help place physical therapy on a sound, scientific basis for the benefit of the medical profession.

One of the purposes of the Council on Physical Therapy is to protect the medical profession, and there-

by the public, against inefficient and possibly dangerous apparatus and against misleading and deceptive advertising in connection with the manufacture and sale of devices for physical therapy.

Apparatus Accepted includes all the devices accepted by the council prior to May, 1935. Any physician may obtain this pamphlet free by writing to the Secretary, Council on Physical Therapy, A. M. A., 535 North Dearborn Street, Chicago, Ill.

COMMENTS AND EXCERPTS

Death Rate Lower.—There were 4719 deaths from tuberculosis in Pennsylvania during 1934, according to provisional figures from the Bureau of Vital Statistics of the State Department of Health. Of this number 4291 were deaths from pulmonary tuberculosis and 428 were other forms. The 1934 tuberculosis death rate of 48.0 per 100,000 population is a decrease of 4 points from the mortality rate of 1933.—*Bulletin of Pennsylvania Tuberculosis Society*, June-July, 1935.

Raw Sauerkraut "Cure" Contains Liver Vitamin.—Rx: Sauerkraut, raw. Sig: One pound, eaten daily. Keep it up for many months.

This is the prescription you would be likely to get if you undertook the new "kraut cure" which is becoming popular in Germany and Austria. An article in the *Muenchner Medizinischer Wochenschrift* recommends it as beneficial in rheumatism, asthma, and some types of digestive troubles.

The benefits of the "kraut cure" are ascribed to its high content of lactic acid and choline. The latter has recently been identified by Dr. C. H. Best and associates of the University of Toronto as a new vitamin, necessary for the normal function of the liver.—*Science News Letter*, July 13, 1935.

Breath and Blood Tests Do Not Prove Intoxication.—The only way to determine intoxication positively, as in the case of drunken drivers, is by examination of the brain tissue after death or by examination of the spinal fluid in living persons, in the opinion of Dr. A. O. Goettler of New York City. Dr. Goettler gave his opinion at the meeting of the American Society of Clinical Pathologists in answer to a question at the conclusion of his report on methods of detecting poison in children who had accidentally been given the wrong medicine or had themselves sampled the contents of the family medicine chest. Dr. Goettler and associates in the medical examiner's office of New York City do not believe that tests of the breath, blood, or kidney excretion give definite evidence of intoxication. Such tests, he said, only show that "a man has partaken of alcohol."—*Science News Letter*, June 22, 1935.

Use Chemical to Detect Brain Tumors by Roentgen Ray.—A chemical substance, thorium dioxide, may be used instead of air to make the brain visible under roentgen rays and thus to detect brain tumors.

Results of 2 years' experience with the substance were reported by Dr. Walter Freeman of Washington, D. C., at the joint meeting of the American and Canadian Medical Associations.

The chemical is injected into the brain, as air has been for this diagnostic purpose. Thorium dioxide is opaque to roentgen rays and has been used recently in the same way to make other parts of the body visible on the roentgen-ray plates. With this chemical Dr. Freeman said he was able to see parts of the brain

that have probably never before been reproduced in roentgen-ray films after air injection.

The thorium dioxide mixes easily with the natural fluid of the brain so that it diffuses through the cavities. Four hours after injection, it can no longer be detected by roentgen ray. The most important advantage is the fact that the chemical does not disturb the normal pressure relationships in the brain.

Thorium dioxide, however, may prove to have more disadvantages than advantages. It is a radioactive substance and the danger resulting from its storage in the body has not yet been determined.—*Science News Letter*, July 20, 1935.

Acid in Spinal-Fluid Test for Brain and Nerve Diseases.—The amount of lactic acid in the fluid in the spinal cord gives valuable aid in diagnosing certain diseases of the brain and central nervous system, particularly meningitis, Dr. S. Bernard Wortis of New York City reported at the Second International Neurological Congress in London. The measure of this acid may also be used to tell the physician something of the progress of the disease and the patient's chances for recovery.—*Science News Letter*, Aug. 3, 1935.

Tendency to Rheumatism May Be Inherited.—A tendency to arthritis, or rheumatism, to call it by its old-fashioned, popular name, may be inherited, Dr. Ralph Pemberton, of Philadelphia, told the American College of Physicians. Success in preventing the disease depends on recognizing this fact. Infection and various other factors are the immediate causes of the disease, bringing on the pain and crippling in persons who have inherited or been born with the tendency to arthritis.

Success in treatment of the disease is highly gratifying, and suggests unmistakably the possibility of controlling it. At present, arthritis, because of its disabling effects, surpasses tuberculosis as an economic and sociologic burden. When interest in the problem is great enough, both among laymen and physicians, and when facilities for caring for arthritis patients in institutions become adequate, control of the disease will be possible.—*Science News Letter*, May 18, 1935.

MEDICAL ECONOMICS

Matured Foreign Judgment Regarding Compulsory Health Insurance.—"The acid test of experience condemns compulsory health insurance schemes wherever they have been tried," says Dr. Arthur J. Bedell, president of the Medical Society of the State of New York.

"The medical profession disapproves of the proposed law because this method of handling medical care is damaging to the patient and disastrous to the doctor.

"This protest does not mean opposition to the policies of the administration in its recovery efforts or in any other phases of the 'New Deal.' However, physicians as a class are better qualified to speak than any other group as to the effects of a compulsory health insurance law on the community. The Medical Society of the State of New York, representative of the physicians of the state, rejects the project. It will not work. It will bring to the community conditions quite the opposite of the expectations of its well-wishing proponents."

Dr. Bedell points to the utter failure of compulsory health insurance in Germany, where it has been tried for half a century. He says that Gustav Hartz, labor economist of Berlin, and author of several books on

Germany's social politics, has analyzed the fallacies of the scheme and exposed to the world the harm, rather than good, that compulsory health insurance has actually produced.

"Sick insurance," according to the Hartz report, "provides the workman with medical attendance free of charge, with medicine and other necessities, and with an allowance. Anyone will at first sight consider this a great blessing for the workman as well as for national health. The reality, however, is far different.

"The insured workman becomes a second class patient. The mass demand compels a limitation in the use of medicines. Doctors must not prescribe what they consider good for the patient; they are only allowed to give remedies entered in a book of medical regulations for insurance purposes.

"Dread of illness obsesses most people and this has been pressed into a system of 'illness made easy' by which the will to be well is strangled. The doctor is consulted a dozen times where once would be sufficient—the insurance pays. The prescribing of medicine and bandages is desired. When they have been obtained they lie about until they are no longer fit to be used—the insurance pays. Besides it is nice to get something in return for the premiums paid year in and year out. There is developed a fear of illness which shakes the will for recovery—the best aid to health. Pretenders and hypochondriacs are bred and the use of medicine becomes excessive.

"Medical science has become a cheap article and doctors have given up conscientious treatment. The genuine patient is neglected, is not given the necessary care. The greater the mass consultation, the lower are the doctor's fees. They are, therefore, compelled to resort to mass practice.

"All this is at the workman's expense, for the part of the premiums supposed to be paid by the employer is in reality borne by the workman either as a consumer or wage-earner. As the employer's premium share is immediately connected with the wage, it is shifted over on the wage. In Germany, no one any longer doubts the fact that the employer's share of the premium is taken from the workman's wages. What the employer pays as his contribution, he cannot pay the workman in the form of wages.

"A network of deception has been spread. In millions of cases wrong was turned into right and the gates opened wide to fraud. When wages are being decreased, when work is scarce and work hours shortened, when there are fewer shifts, many holidays, sick insurance comes in handy. One objects to the work he is given, another does not feel like working. Matters soon make an extensive controlling system necessary. This ends in badgering all persons.

"Patients are visited in their homes by controlling officials who have to convince themselves that the patient is really ill and not doing any work. The sick insurance engages so-called confidential doctors who have to submit the patient to a final examination to see whether he is too ill to work. The results of such examinations are to a great extent startling. Here is one instance from among thousands: 2008 patients were ordered to appear for a final examination; 816 of them at once declared their complete recovery; 289 were found to be well by the confidential doctor. So nearly half of them were not ill at all.

"The confidential doctor is, so to say, the medical policeman, who not only controls the patients but also his fellow doctors who are treating them.

"The genuine patient is justly indignant to find that the existence of his illness is doubted, and that he who has always paid his premiums regularly and has a right to demand conscientious attendance is considered a cheat.

"This system, together with the rest of the bureaucratic apparatus, has wedged itself between doctor and patient, completely destroying the patient's confidence in his physician, which greatly retards all recovery.

"Those who know anything about the actual working of compulsory health insurance will not be surprised that the confidential doctor, whose task it is to keep the number of patients low, may declare a patient recovered, who nevertheless dies 2 days later."—*Medical Times*, April, 1935.

Additional Data on Medical Economics

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PHYSICAL THERAPY

Physical Therapy in an Industrial Hospital.—Dr. C. H. Ogden, director of physical therapy, Illinois Steel Company, states that industrial medicine had its recognized conception with the passage of the workmen's compensation acts in the various states. At the start, cost was the predominating factor rather than the character and quality of the work. The service rendered was limited to first aid and hospitalization of the injured. It became apparent as time went on that the character and quality of the service rendered and the personality of the staff were really the important factors. Along with this realization came the extension of the service to include sanitation, preventive medicine, physical examinations, and physical therapy.

At the start physical therapy in industry was limited practically to massage and passive motion and it was not until after the World War that the greatest strides were made in physical therapy. Training, tact, and personality are prerequisites.

The physician in industry is expected to return the patient to his occupation in the shortest consistent interval practicable.

The auditor is watching the costs of a nonproductive department on one side, and the safety man watching his time-lost record on the other.

In private work the patient strives as much as possible to shorten his period of disability while in many instances an industrial patient is in no particular hurry to return to work, particularly if during these present times he is only working part time.

Nor is the industrial patient going to brag of good functional results until he has completed his settlement.

It is the aim in industrial physical therapy to bring the fractures of the lower extremity to the weight-bearing stage with full active motion of the injured part.

In an industrial hospital, fractures of the small bones of the extremities constitute in numbers by far the largest percentage of cases treated in the physical therapy department, and while they may appear trivial in the physical therapy rôle as a whole, yet they demand

the fullest interest and effort, for in terms of settlement paid for permanent disability they constitute a considerable sum in the course of a year.

As in medicine so in physical therapy there is no class of cases treated requiring more complete and detailed records than those of industry. The record must include a full description of the condition and amount of motion at the time of admission to the department, a full weekly progress record, and a detailed description of condition on discharge, including active and passive motion and patient's claims when discharged.

Dr. Ogden suggests that in an industrial establishment not having sufficient work to warrant the employment of a registered technician, and likewise in the smaller hospitals in which the number of industrial cases does not warrant the employment of a full-time technician, that the work may be accomplished best by a technician working out of and under the direction of a physical therapy laboratory of high standards. In ambulatory cases they may be referred to these laboratories just as eye and neurologic cases would be referred for specialized treatment and reports.—*Bulletin of the American Hospital Association*, Aug., 1935.

MEDICOLEGAL

Hospital Held Responsible for Burns Inflicted on Unconscious Patient.—The decision of the District Court of Appeals, Second District, Division 2, California, in the case of *Timbrell v. Suburban Hospital, Inc.* (Calif.), 36 P. (2d) 435, sustaining the judgment of the lower court, is of interest to hospitals.

This is a case in which the patient, after a cesarean operation in the hospital-defendant, while still unconscious had hot compresses and hot water bottles applied to her body and was burned. The patient and her husband sued the hospital, joining with it as a defendant one of the 2 special nurses whom the hospital had called in to care for the patient. The defendant-hospital contended that the special nurses in the case were not employees of the hospital so as to render it liable for their negligence. The Appellate Court held to the contrary, on authority of the case of *McBride v. Clara Barton Hospital*, 75 Calif. App. 161, 241, P. 941. The verdict that absolved the special nurse, who had been joined with the hospital as a defendant, did not exonerate the hospital, for the special nurse was not the only nurse caring for the patient when the burns were inflicted.

The Court held that the Trial Court did not err in instructing the jury on the doctrine of *res ipsa loquitur*, for the patient was unconscious during the time the injuries were being inflicted and that doctrine was clearly applicable. Neither did the Trial Court err in giving certain instructions that the hospital contended made it and its nurses, in effect, insurers against negligence and burns, since the instructions complained of, considered in the light of the court's entire charge, could not have misled the jury on any essential legal principles. When a patient is unconscious after an operation and those charged with caring for her, knowing her helpless condition, use hot compresses and hot water bottles, they must use them in such a way and keep such watch over them as not to burn the patient.—*Bulletin of the American Hospital Association*, Aug., 1935.

Agreements Between Hospital and Patients.—It is a singular fact that rarely are hospitals involved in litigation on matters related to the type of service they render to their patients. Mayhap this is because

of the well-recognized difficulty of recovering from charitable institutions for reputed injury to person. But the hospital's total disregard of the security inherent in an agreement signed by both contracting parties—the institution and the patient—is a matter that daily invites litigation by the unscrupulous.

Properly executed consent for operation, a signed release from responsibility for the premature discharge of a patient, a signed refusal to accept treatment, a written necropsy consent are the chief documents of importance that concern the hospital and the patient.

Every institution should possess carefully prepared agreement forms which cover these understandings. Rules directing the manner of their use must with equal care be drawn up and adopted, since even when such printed contracts are at hand the grossest carelessness is often manifested in their use. For example, one consent for operation does not cover permission for others of like character and risk on the same patient. The removal of specimens at necropsy is not legally permissible unless permission therefor is specifically granted in the postmortem form. A verbal refusal to submit to treatment has little legal standing should litigation arise.

To be sure, time and effort are necessary to the proper execution and filing of hospital and patient contracts. What of value can be secured without the expenditure of these two? The hospital executive will do well to check carefully the practices in his hospital which have as their aim the protection of the institution against the shoddy damage claims of unscrupulous patients.—Editorial, *The Modern Hospital*, Mar., 1935.

INDUSTRIAL MEDICINE

Memorandum From the Department of Labor, New York State.—The following is advice and instructions to physicians authorized to treat workmen's compensation cases in New York State under provisions of chapters 258 and 930 of Law of 1935:

1. If you rendered treatment to a patient for a compensable accidental injury or an occupational disease that occurs on or after July 1, 1935, the employer or his insurance carrier is liable for payment of your bill.

2. You may not charge less than the minimum fee established by the Industrial Commissioner unless you are employed on a salary basis by a licensed compensation medical bureau (a schedule of the minimum fees established may be obtained from your county or state medical society or from this office).

3. You will not be entitled to a fee in excess of the minimum charge provided in the schedule unless the employer authorizes it or the excess is approved by the Arbitration Committee.

4. Your bill for services rendered should be submitted to the employer and it will be deemed fair in the amount rendered unless a hearing is requested within 30 days. If a hearing is requested the fair value will be decided by an Arbitration Committee, whose findings will be binding on all parties.

5. Your patient may transfer his care to another authorized physician. If he does, you should supply the succeeding physician with a complete history of the case.

6. The employer has the right to remove a patient from your care (a) if the interest of the injured employee necessitates a transfer; or (b) if you have not been authorized under the Act to treat the particular injury or condition.

If you believe the employer or insurance carrier was

unreasonable in transferring the patient from your care, you may appeal to the Arbitration Committee and if successful you will be entitled to a sum equal to that paid the succeeding physician, or such portion of it as the Arbitration Committee deems adequate.

7. You must submit a preliminary report to the Division of Workmen's Compensation *and* to the employer within 48 hours after you render the first treatment and a more detailed report within 20 days after the first treatment. *Your bill may not be valid or enforceable if you fail to submit these reports to the Division of Workmen's Compensation and to the employer within the time limit (the 20-day report the title of which is "Attending Physician's Report" shall not be required unless requested if treatment is not necessary after the 48-hour report is submitted).*

8. If treatment extends beyond the date upon which the 20-day report is submitted, you should submit progress reports at intervals not exceeding 2 weeks and a final report when the patient is discharged from treatment.

9. *You must send a copy of all reports submitted to the employer or his insurance carrier to the Division of Workmen's Compensation.* You must place your authorization number with symbols on every report submitted. To insure prompt consideration of your bill it is suggested that you send a copy of every report to the employer's insurance carrier, if known.

10. The employer and his insurance carrier shall have the right to examine your patient at reasonable and convenient times and places. You may be present at such examinations. You should urge your patient to submit to such examinations as his failure to do so may deprive him of compensation during the period of his refusal.

11. Fees such as for specialists, consultations, surgical operations, or physical therapeutic procedures costing more than \$25 *shall not* be enforceable against an employer unless such services shall be authorized by the employer or by the commissioner, or unless such authorization shall be unreasonably withheld, or unless such special services are required in an emergency. This rule and its exceptions apply to roentgen-ray examinations or special diagnostic laboratory tests costing more than \$10.

12. Medical care may be rendered by a registered nurse, registered physical therapist or other persons trained in laboratory or diagnostic technic within the scope of their training *only* under the active and personal service of an authorized physician. These services shall be evidenced by signed records of instructions for treatments and signed records of the patient's condition or progress.

13. You may not collect or receive a fee from a claimant for compensation but shall have recourse for payment for such services rendered only to the employer.

14. You will be entitled to a fee for attendance at a hearing on a claim for compensation if you have rendered treatment and your attendance is *required*.

15. Your authorization to treat workmen's compensation cases may be revoked for cause, specifically (a) if you are found guilty of professional or other misconduct or incompetency in connection with medical services rendered under this chapter; or, (b) if you have exceeded the limits of your authorized professional competence in rendering medical care under this chapter, or have made materially false statements concerning your qualifications in your application for authorization which you filed with your county or state medical society; or, (c) if you fail to submit full and truthful

medical reports as required; or, (d) if you render medical service under this chapter for a fee less than fixed by the schedule approved by the industrial commissioner for your particular locality; or (e) if you participate in the division, transference, assignment, rebating, splitting, or refunding of a fee for medical care under this chapter; or (f) if you solicit or employ another to solicit for professional treatment, examination, or care of an injured employee in connection with any claim under this chapter.

One of the most important functions of a physician under this act is to keep proper and adequate records and submit proper and detailed reports promptly. Your compliance with these requirements will eliminate unnecessary delay in the payment of compensation to the injured workman and unnecessary hearings on the claim by this department. Your failure to keep proper and adequate records and submit detailed reports promptly will delay adjudication of the claim which will cause undue hardship on the injured employee whom the law was primarily intended to benefit.

To insure proper filing you are urged to write the name of the patient and employer clearly and distinctly with correct spelling.

NOTE: All questions and communications regarding the Workmen's Compensation Law should be addressed to the Committee on Workmen's Compensation, Room 557, 2 East 103d St., New York City.—*N. Y. State J. M.*, No. 15, 1935.

HOSPITAL ACTIVITIES

Bulk Ether Warning.—There have recently appeared in the various technical publications numerous references to the possibility of using bulk ether for anesthesia. The savings to be effected by the substitution of bulk U. S. P. ether for specially prepared ether for anesthesia might perhaps amount to a few cents per operation.

For the large city hospital with many operations each day and with an adequate staff of skilled technicians to check the bulk ether each day for the possible presence of aldehydes, peroxides, and ketones, the new procedure may hold a promise of savings. For the average small hospital to attempt this new technic, however, is dangerous. The set-up for the safe use of bulk ether is far from simple, and the technic of daily testing must be meticulously followed.

The set-up for the use of bulk U. S. P. ether consists of a cylinder of nitrogen, pressure gauge, reducing valve and reduced pressure gauge, flow valve and meter, water bottles, and connections, in addition to the supply of bulk U. S. P. ether, making a sizable financial investment.

For the average small hospital the risks are entirely disproportionate to the possible savings. A single unfortunate result is more vital than any possible savings.

We have always advocated any measure or device that might safely be used to reduce hospital costs. We still believe that each possible saving should be carefully explored. A considerable mass of clinical evidence in favor of the use of bulk ether should be presented before it is adopted for widespread use. It will take a long time, and the collection of data on a large series of cases, before any worth-while statistics can be obtained in regard to the effect of bulk U. S. P. ether on patients.

Some well-known physician anesthetists with widespread experience still maintain that small amounts of

impurities in ether do have a deleterious effect on the patient's recovery, particularly as regards nausea and bronchial irritation.

The medicolegal aspect must not be overlooked. If a death occurs almost under any circumstance, when any but a recognized anesthetic ether is being used, opinion will at once question the ether, and it will probably be blamed for the fatality.

There are many hazards in connection with anesthesia when the anesthetics used are of the highest quality.

One well-known anesthetist states that if ether cans are to be filled in the hospital from large drums, extraordinary precautions will have to be taken for the prevention of fires or explosions, as ether vapor will very readily creep along the floor.

Most of the large hospitals that are making detailed studies of the effect of bulk U. S. P. ether on patients are not as yet making routine use of this ether when ether is the indicated anesthetic. The prime obligation of the hospital is to protect the patient.—*The Modern Hospital*, Mar., 1935.

PUBLIC HEALTH

Safety Conference Held.—The most ambitious effort in the history of organized safety work was held in Philadelphia, May 27, 1935, when 3000 delegates assembled in the second Greater Philadelphia Safety Conference under the auspices of the Philadelphia Chamber of Commerce. The problems discussed covered industrial, street and highway, and commercial vehicle safety, and fire prevention. New methods of handling the drunken driver and traffic problems, the handling of home and child safety, the tightening of the safety regulations in industry, the better training of drivers of commercial vehicles were all stressed in the discussion in the various sessions.

Construction of ultrascientific highways to cut down automobile accidents was suggested at the conference. The new fool-proof highway (limited way) was proposed, which it is believed could have prevented all but 17 of 90 fatal accidents investigated in Chicago in 1931.

Limited way may be defined as a roadway for vehicular traffic in which there is a physical separation of opposing streams of traffic by means of a medial dividing strip in which no provision is made for direct access to abutting property—such access being provided by super, sub, or marginal roadways. Limited way is a roadway in which there is no cross movement of traffic of any character due to a complete separation of all grades. It also provides decelerating lanes for traffic leaving the structure and accelerating lanes for traffic entering the structure thus making possible a high degree of uniformity in speed movements of units composing the operating stream.

It is not enough to provide wide, smooth roads having slight grades and easy curves, but it is necessary to cope with the weaknesses of highway users to provide highways which are inherently safe day and night. Such improved, fool-proof, safe highways would include grade separations, divisional as well as channelizing islands, highway lighting to provide safer night travel, and proper uniform regulatory devices such as signs, signals, and markings.

The State Department of Health recently advised school directors of the fourth-class districts to make every effort to keep in a satisfactory sanitary condition the 6223 one-room school buildings still in use in Pennsylvania.

While the decreased budgets have embarrassed school directors not only in making repairs to buildings of this type, but in maintaining the sanitary standards, reasonable school sanitation which insures clean floors, fixtures, and an atmosphere free from dust and objectionable odors is an important prophylactic measure.

The Availability of Poisons.—Once upon a time we thought of the detective only as a slant-eyed sleuth in gum shoes, slick on the gun-draw, slicker still with changing his wardrobe and whiskers, and always ready with a lightning flick of his coat lapel to broadcast his badge and business.

But latterly the detection of crime has grown to be a serious business. Men trained in precision—the finger-print expert, the microscope man, the chemist, the physicist—all are part of the great dragnet that covers the country for its criminal catch.

No matter how we may react to the New Deal, whether we are Rooseveltian or just old-fashioned Americans, the administration's Mr. Hoover and his G men must claim our respect and admiration for their first-rate accomplishments and for the far-reaching policies of their special department.

If the influence of the professors and their applied sciences are responsible in part for the improvement in this special work of the Department of Justice, then we hail not only Hoover but all the professors as well.

For not only is the department making crime more difficult and less attractive, because of its obvious success in apprehending the perpetrators, but its wise policy of propaganda, its nation-wide warning that crime does not pay, must be deterrent to many who might otherwise err.

With broadcasts, magazine articles, special bulletins, newspaper editorials, and similar agencies the inevitability of punishment for crime, the relentlessness of the law, the practical demonstrations of the operation of justice in the recent public enemy prosecutions, all of these facts are blatantly brought to general notice.

And this is a splendid means of prevention. It is an antidote to the poison virus needled into the minds of our youngsters by mawkish gangster pictures on the screen, by sentimentalized piffle printed in our daily papers, and by the gunman glorifying gags in our muck-raking magazines.

We call attention however to an oversight in connection with a minor phase of this campaign of education.

It has to do with poisons—and it is a twofold criticism.

In the first place, the actual naming of toxic materials in the context of articles dealing with such is greatly to be deplored. One article, which may or may not be part of this anticrime propaganda, appears in that alleged he-man magazine, *Esquire*, and mentions in no uncertain terms the specific names of the poisons discussed, thus affording the reader a sort of an extramural education in the fine art of poisoning.

The second criticism has to do with the unfortunate availability of poisons to those who mean to use them criminally. The most insidious toxic weapons, more gruesome than the gun, may be bought as readily as ribbon at the counter by anyone who wants them. The arsenic, cyanide, and nicotine insecticides are sold as glibly as sugar by the grocer, the florist, and the hardware man.

And, more than likely, their use is often else than insecticidal.

The pharmacist must register his sales of every poison, but poison more wicked than the bite of a mad

dog's tooth may be bought elsewhere without a whit of ceremony.

Consider that concentrate of nicotine sulphate, sold for rose-tree spraying and containing in the vile little vial enough poison to end the days of half a dozen adults.

And although the advent of the modern analyst has stolen the subtlety from the poisoner's repertoire, there is still enough incentive, still enough opportunity for intelligent scoundrels to try their toxic tricks.

Poisons are altogether too easy to get—too easy to use and abuse.—Editorial, *Am. Jour. Pharm.*, June, 1935.

Morbidity in Pennsylvania in June, 1935

Locality	Disease				
	Diphtheria	Measles	Scarlet Fever	Typhoid Fever	Whooping Cough
Aliquippa	0	8	3	0	0
Allentown	3	62	0	0	13
Altoona	1	12	9	0	2
Ambridge	0	0	0	0	0
Arnold	0	0	0	0	0
Beaver Falls	1	19	7	0	2
Bellevue	0	27	0	0	1
Berwick	0	15	2	0	0
Bethlehem	0	4	0	0	1
Braddock	1	0	1	0	0
Bradford	1	8	1	0	1
Bristol	0	0	0	0	0
Butler	0	3	3	0	0
Canonsburg	0	0	0	0	0
Carbondale	0	0	0	0	0
Carlisle	0	1	0	0	0
Carnegie	0	3	1	0	1
Chambersburg	0	26	1	0	0
Charleroi	0	0	1	0	2
Chester	0	4	4	1	9
Clairton	0	19	1	0	0
Coatesville	0	2	0	0	1
Columbia	0	0	1	0	0
Connellsville	0	0	1	0	0
Conshohocken	1	0	0	0	2
Coraopolis	0	2	14	0	0
Dickson City	2	0	0	0	0
Donora	0	6	1	0	0
Dormont	0	11	0	0	0
Du Bois	0	2	0	0	6
Dunmore	1	0	1	0	0
Duquesne	1	6	0	0	4
Easton	5	1	4	0	2
Ellwood City	0	5	0	0	0
Erie	0	39	16	1	23
Farrell	0	2	0	0	0
Franklin	0	6	3	0	2
Greensburg	0	0	0	0	0
Hanover	0	1	1	0	0
Harrisburg	1	25	2	1	3
Hazleton	2	3	1	0	3
Homestead	0	2	2	0	0
Jeannette	0	1	4	0	0
Johnstown	0	12	6	0	10
Kingston	0	2	0	0	0
Lancaster	0	8	16	0	2
Latrobe	0	0	0	0	0
Lebanon	0	38	2	0	0

Locality	Disease				
	Diphtheria	Measles	Scarlet Fever	Typhoid Fever	Whooping Cough
Lewistown	0	0	1	0	4
McKees Rocks	0	4	2	0	0
McKeesport	0	2	10	0	0
Mahanoy City	0	1	1	0	0
Meadville	0	23	2	0	1
Monessen	0	3	1	0	0
Mount Carmel	0	11	0	0	0
Munhall	0	0	2	0	0
Nanticoke	0	0	0	0	0
New Castle	0	48	8	0	1
New Kensington	0	4	0	0	0
Norristown	0	0	0	2	0
North Braddock	0	1	1	1	2
Oil City	2	154	4	0	10
Old Forge	0	0	0	0	0
Olyphant	0	7	0	0	0
Philadelphia	10	247	200	55	144
Phoenixville	0	0	0	1	0
Pittsburgh	11	436	119	2	77
Pittston	0	2	0	0	1
Plymouth	1	9	0	0	0
Pottstown	0	1	0	0	0
Pottsville	1	0	0	0	0
Reading	1	375	13	0	3
Scranton	0	41	25	0	3
Shamokin	0	0	0	0	0
Sharon	0	1	3	0	2
Shenandoah	2	0	0	0	0
Steelton	0	1	0	0	0
Sunbury	0	9	2	0	8
Swissvale	0	3	1	0	0
Tamaqua	0	15	3	0	0
Taylor	0	0	0	0	0
Turtle Creek	0	0	1	0	0
Uniontown	0	1	2	0	0
Vandergrift	1	160	0	0	0
Warren	0	0	0	1	0
Washington	0	9	2	0	1
Waynesboro	0	10	3	0	0
West Chester	0	2	0	0	0
Wilkes-Barre	4	71	3	0	6
Wilkinsburg	0	15	3	0	6
Williamsport	0	14	0	0	22
York	0	0	0	0	0

Townships

Allegheny County:					
Harrison	0	1	0	0	0
Mt. Lebanon	0	0	0	0	0
Stowe	0	1	1	0	0
Delaware County:					
Haverford	1	4	1	0	0
Upper Darby	0	13	4	0	32
Luzerne County:					
Hanover	0	13	1	0	0
Plains	0	2	0	0	0
Montgomery County:					
Abington	1	10	0	0	10
Cheltenham	0	1	1	0	8
Lower Merion	1	7	6	0	3

Total Urban ..	56	2117	535	65	434
Total Rural ..	52	1763	358	27	269
Total State ..	108	3880	893	92	703

TUBERCULOSIS ABSTRACTS

A Review for Physicians

PREPARED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Published through the coöperation of the Pennsylvania Tuberculosis Society and The Medical Society of the State of Pennsylvania

CLINICIANS and epidemiologists are concerned with the prevention of the spread of tuberculosis. Since the tubercle bacillus is the sole direct cause of tuberculosis, emphasis has been placed on the sputum which conveys the bacilli and on closeness of contact between patients and healthy persons. Isolating sputum-positive patients and collapsing the infected lung to prevent the outflow of infected sputum have been the chief measures employed for the prevention of the spread of the disease. A pathologic phenomenon of primary significance, which has been largely overlooked, is softening of the caseous tubercle. Esmond R. Long, in an article in the *Journal of the American Medical Association*, points out the significance of caseation and softening, clinically and epidemiologically. The summary and brief abstracts are here given.

SOFTENING OF THE CASEOUS TUBERCLE

1. Tuberculosis in its epidemiologic aspects has its source in a specific pathologic phenomenon, softening of the caseous tubercle.

This is the key problem in tuberculosis. If caseous tubercles did not soften the disease would be practically self-limited. The course of pulmonary tuberculosis may be summarized as follows. Following infection, cellular and subsequent caseous tubercles are formed and some of these soften. Caseous matter discharged into the bronchioles is aspirated. New tubercles are formed, some of which in turn soften. If the softened matter is coughed out, it may infect other people.

2. The phenomenon of softening of the tubercle has long been recognized but not commonly identified as a specific pathologic process, distinct from caseation.

Laënnec described the softening and liquefaction of caseous tubercles and their significance, but in modern textbooks the 2 phenomena

of caseation and softening are commonly not separated, and the distinctive nature of the latter process is not stressed.

3. The significance of softening of the caseous tubercle for epidemiology lies in the fact that associated with it is an enormous multiplication of tubercle bacilli. The latter are commonly hundreds or thousands of times as numerous in the semiliquid contents of softening caseous nodules as in the necrotic walls of old cavities.

Even less attention has been directed to the collateral event with the softening, namely, an extraordinary multiplication of tubercle bacilli. Koch noticed that tubercle bacilli were present in greatest number in the interior of cavities, the walls of which are undergoing rapid liquefaction. When the product of tubercle infiltration first discharges into a bronchus it has maximum infective power. Not before nor again after are tubercle bacilli to be found in the region concerned in as great number. The soft

yellow lumps sought by the technician examining sputum are nothing more than bits of debris from the liquefying caseous nodules.

4. Three types of cases (illustrated by reports in the article) may be distinguished in a general way on the basis of the number of bacilli in the softening regions—a chronic type with a moderate concentration of bacilli in the softening lesions, an intermediate type, and an acute type with vast numbers of bacilli.

The 3 cases cited were an elderly Jew with pulmonary tuberculosis of exceptional chronicity, a young American white adult with pulmonary tuberculosis of ordinary duration, and a Negro child with "adult type" tuberculosis of extraordinary severity and rapid progression. All 3 died and came to necropsy. The phenomena of softening and bacillary multiplication were qualitatively the same in all 3 but varied quantitatively with the type of case. They represent the 2 extremes and the average in the intensity of the processes concerned. All 3 cases exhibited the presence of enormous numbers of tubercle bacilli in caseous lesions undergoing softening and the number of bacilli was much greater in the softening lesions than in the walls of old cavities (commonly considered the chief source of spread of bacilli).

5. The fundamental nature of the process of softening is still unknown. It is not equivalent to suppuration. Attempts to put it on an allergic basis have not been entirely successful.

Neither the cause of the softening nor the explanation of the enormous number of tubercle bacilli present is definitely known. Softening is not due to the proteolytic action of leukocytes, present as a result of secondary bacterial invaders. Bacteria and fungi not chemotactic for leukocytes but possibly rich in proteolytic enzymes do not account for it. That softening is an allergic process has been suggested but there are several objections to this view.

It is not yet clear whether the tremendous growth of tubercle bacilli precedes or follows the softening. If subsequent research proves that the softening comes first, the multiplication of bacilli can be explained on the basis of the new opportunity afforded by the softening for oxygen ingress and flow of fluids containing nutritive elements. Lurie has suggested this for the analogous process in tuberculous animals.

6. The softening tubercle should receive more clinical consideration than is at present the case. Successful treatment of tuberculosis by lung collapse owes its favorable outcome as much to prevention of drainage of liquefying tubercle as to the obliteration of large cavities. Lung collapse, improperly applied, particularly with excessive pressure, even when obvious cavities are obliterated, may result unfavorably through expulsion of highly infective liquefying matter into tributary bronchioles. The most appropriate lung collapse, as far as the softening tubercle is concerned, is that which stops motion of the lung and partially or completely obliterates the small bronchiolar outlets from the liquefying masses.

Unfortunately, softening lesions can probably not be recognized clinically. Even roentgenograms do not distinguish unsoftened and softening caseous nodules until the latter progress to small cavities. Yet from the standpoint of treatment the subject is highly significant. To prevent the spread of the disease inside the lung or to other persons is the ideal treatment. The only method of absolute prevention would be obstruction of the outlet of the developing cavity. In a motionless lung the discharge of softening contents of a new cavity is not likely. Proper pneumothorax will tend to prevent escape of the contents but improper pneumothorax (with positive pressure) might result in expulsion of the semiliquid, bacilli-rich mass and aspiration into healthy parts of the lung.

From Pathology to Epidemiology in Tuberculosis, Esmund R. Long, M.D., Journal of the American Medical Association, May 25, 1935.



THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA

OFFICIAL TRANSACTIONS

Eighty-fifth Annual Session

CALL TO THE 1935 SESSION

The first meeting of the House of Delegates of The Medical Society of the State of Pennsylvania will be called to order in the Farm Show Building, Harrisburg, on Monday, Sept. 30, 1935, at 3 p. m.

Officers to be elected at this annual session will include, among others:

A trustee and councilor for the third district, to serve for 5 years. Trustee and Councilor Frederick J. Bishop, having served 2 terms of 5 years each, will be ineligible for reelection.

A trustee and councilor for the ninth district to succeed Dr. Alexander H. Stewart, who has served 5 years.

A trustee and councilor for the eleventh district, to serve for one year to complete the unexpired term of Dr. A. E. Crow, he having recently resigned on account of pressing obligations.

The House of Delegates will also be called upon to elect 6 delegates and 6 alternates-designate from this society to the House of Delegates of the American Medical Association for 1936 and 1937, 1 delegate and 1 alternate-designate for 1936, and 11 alternates-at-large for 1936.

In addition to the transaction of the usual business the House of Delegates will consider proposed amendments to the constitution and by-laws as follows, which are offered by the Board of Trustees.

1. Amend Section 6 of Chapter VIII to read as follows (proposed amendment in italics): Any physician living near a county line may hold his membership in the county most convenient for him to attend, on permission of the Councilor of his district *and the component society of the county in which he lives*, but no physician shall at the same time hold membership in more than one component county medical society.

2. Amend Section 1 of Chapter III entitled Councilor Districts involving the constituency of certain councilor districts as set forth in the following italicized words:

Chapter III, Section 1. The State of Pennsylvania shall be divided into 11 Councilor Districts, and each district shall be entitled to one councilor. The Councilor Districts shall be composed of the following counties:

First Councilor District: Philadelphia County.

Second Councilor District: Berks, Bucks, Chester, Delaware, Montgomery, and Schuylkill counties. *Detach Schuylkill; add Lehigh.*

Third Councilor District: Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Pike, and Wayne counties. *Detach Carbon, Lehigh; add Bradford, Susquehanna, Wyoming.*

Fourth Councilor District: Bradford, Columbia, Montour, Northumberland, Susquehanna, Snyder, Sullivan, and Wyoming counties. *Detach Bradford, Susquehanna, Wyoming; add Carbon, Schuylkill.*

Fifth Councilor District: Adams, Cumberland, Dauphin, Franklin, Fulton, Lancaster, Lebanon, and York counties. *Add Perry.*

Sixth Councilor District: Blair, Center, Clearfield, Huntingdon, Juniata, Mifflin, and Perry counties. *Detach Perry; add Bedford.*

Seventh Councilor District: Cameron, Clinton, Elk, Potter, Tioga, Lycoming, and Union counties.

Eighth Councilor District: Crawford, Erie, Forest, Mercer, McKean, and Warren counties.

Ninth Councilor District: Armstrong, Butler, Clarion, Indiana, Jefferson, and Venango counties.

Tenth Councilor District: Allegheny, Beaver, Lawrence, and Westmoreland counties.

Eleventh Councilor District: Bedford, Cambria, Fayette, Greene, Somerset, and Washington counties. *Detach Bedford.*

The following resolution from the Chester County Medical Society has also been received:

WHEREAS, Many insurance companies operating throughout the State of Pennsylvania have selected certain physicians in each community to care for the medical treatment of compensation cases with which said companies may be concerned, and furthermore have instructed employers to send any injured employees to said specified physicians, and

WHEREAS, Certain physicians who are members of The Medical Society of the State of Pennsylvania are paid salaries in return for medical services rendered to injured employees by companies liable for said injuries, and

WHEREAS, The Medical Society of the State of Pennsylvania has been committed to the principle that any one sick or injured has the right to select his own physician, be it

Resolved, That the House of Delegates of The Medical Society of the State of Pennsylvania, now assembled, definitely and specifically define "contract practice" within the limits of "reasonable competition," and definitely state whether physicians employed by insurance companies in the capacity as outlined above are guilty of violation of the Code of Ethics of The Medical Society of the State of Pennsylvania and the American Medical Association.

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The president of each component county society, or in his absence the secretary, is a member of the House of Delegates.

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* The offset names are the alternates, and where street address only is given, the name of the city follows the name of the county.

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CHESTER COUNTY

J. Ashbridge Perkins, Coatesville, *President*.
Joseph Scattergood, Sr., West Chester, *Secretary*.
John A. Farrell, West Chester.
Scott B. Lewis, West Chester.
Irving M. Waggoner, West Chester.
Joseph Scattergood, Jr., West Chester.
Wilmer K. Gallagher, Paoli.
Joseph G. Clark, West Chester.

CLARION COUNTY

Roy B. Erickson, Sligo, *President*.
Charles C. Ross, Clarion, *Secretary*.
Cuvier L. Clover, Knox.
Gale H. Walker, Clarion.
Byron P. Walker, West Monterey.

CLEARFIELD COUNTY (CLEARFIELD)

Gillespie B. Yeane, 111 S. Second St., *President*.
J. Paul Frantz, 213 N. Second St., *Secretary*.
Ward O. Wilson, Clearfield.
Austin C. Lynn, Philipsburg.
James L. Cornely, Morrisdale.

CLINTON COUNTY

Clair B. Kirk, Mill Hall, *President*.
David W. Thomas, Lock Haven, *Secretary*.
Saylor J. McGhee, Lock Haven.
Francis P. Dwyer, Renovo.
William J. Shoemaker, Lock Haven.

COLUMBIA COUNTY

Donald B. McHenry, 211 Ferry St., Danville, *President*.
Charles B. Yost, Bloomsburg, *Secretary*.

Heister V. Hower, Berwick.
Harry S. Buckingham, Berwick.
William G. Berryhill, Orangeville.

CRAWFORD COUNTY

Carl M. Hazen, Titusville, *President*.
Luther J. King, Meadville, *Secretary*.
Herman H. Walker, Linesville.
Edgar J. Werle, Meadville.

CUMBERLAND COUNTY

Benjamin F. Hunt, Mechanicsburg, *President*.
Richard R. Spahr, Mechanicsburg, *Secretary*.
Seth I. Cadwallader, West Fairview.
Newton W. Hershner, Mechanicsburg.
Edward R. Plank, 154 W. Louther St., Carlisle.

DAUPHIN COUNTY (HARRISBURG)

Henry R. Douglas, 1800 Market St., *President*.
John A. Daugherty, 226 State St., *Secretary*.
John F. Culp, 224 Pine St.
Harvey F. Smith, 130 State St.
Park A. Deckard, 814 N. Second St.
Edwin A. Nicodemus, 1437 Derry St.
Edgar S. Everhart, Lemoyne.
John R. Plank, 231 N. Front St., Steelton.
George L. Lavery, 226 State St.
Hewett C. Myers, 198 S. Second St., Steelton.
Howard E. Milliken, 2012 N. Third St.

DELAWARE COUNTY

John S. Eynon, 401 E. Ninth St., Chester, *President*.
Albin R. Rozploch, 318 Highland Ave., Chester, *Secretary*.
C. Irvin Stiteler, 507 Welsh St., Chester.
Richard Owen, Tenth and Lincoln Ave., Moore.
James W. Dunn, 118 E. Baltimore Ave., Clifton Heights.
John J. Sweeney, 7701 West Chester Pike, Highland Park.
Walter Wentz, 19 W. Baltimore Ave., Media.
Hersey E. Orndoff, Glenn Riddle.

ELK COUNTY

Joseph G. Hayes, Ridgway, *President*.
William A. W. Switzer, Ridgway, *Secretary*.
Samuel G. Logan, Ridgway.
Lewis L. Hobbs, Jr., Ridgway.
John Craig McAllister, Ridgway.

ERIE COUNTY (ERIE)

Arthur G. David, 716 Sassafras St., *President*.
Norbert D. Gannon, 354 W. Ninth St., *Secretary*.
Clarence H. Lefever, 805 W. Twenty-sixth St.
Clayton W. Fortune, 716 Sassafras St.
Kenneth S. Treiber, 2124 Sassafras St.
Elmer G. Shelley, 56 W. Main St., North East.
James D. Stark, 860 E. Sixth St.
J. Harrison Tate, 3123 Peach St.

FAYETTE COUNTY (UNIONTOWN)

John D. Sturgeon, Jr., 22 N. Gallatin Ave., *President*.
George H. Robinson, Second Natl. Bank Bldg., *Secretary*.
Eben R. Ingraham, Masontown.
Jesse L. McCracken, Smithfield.
Ralph L. Cox, Star Junction.
Harry J. Bell, Dawson.
Albert E. Coughenour, McClellandtown.
David E. Lowe, Fayette Title and Trust Bldg.

FRANKLIN COUNTY

David M. Shoemaker, Waynesboro, *President*.
Ambrose W. Thrush, 41 Lincoln Way W., Chambersburg, *Secretary*.
Frank N. Emmert, Chambersburg.
Ambrose S. Thrush, 41 Lincoln Way W., Chambersburg.
Percy D. Hoover, Waynesboro.

GREENE COUNTY

James A. Knox, Waynesburg, *President*.
 Frank D. Hazlett, Waynesburg, *Secretary*.
 Donald R. Jacobs, Waynesburg.
 Harold B. Wood, Wind Ridge.
 W. Sturgis Frankenburger, Carmichaels.

HUNTINGDON COUNTY (HUNTINGDON)

Paul Maxwell, Mt. Union, *President*.
 John M. Keichline, Jr., 302 Eighth St., *Secretary*.
 Cloy G. Brumbaugh, 805 Mifflin St.
 Walter Orthner, 813 Mifflin St.
 Robert B. Campbell, Box 363, Mt. Union.

INDIANA COUNTY

C. Paul Reed, Indiana, *President*.
 Edward L. Fleming, Indiana, *Secretary*.
 James G. Gemmell, Iselin.
 Milton Auslander, Iselin.
 Ralph M. Lytle, Saltsburg.

JEFFERSON COUNTY

Edward F. Heid, Brockwayville, *President*.
 William A. Hill, Reynoldsville, *Secretary*.
 Frank A. Lorenzo, Punxsutawney.
 S. Meigs Beyer, Punxsutawney.

JUNIATA COUNTY

Benjamin H. Ritter, McCoysville, *President*.
 Brady F. Long, Mifflin, *Secretary*.
 Isaac G. Headings, McAlisterville.
 Benjamin H. Ritter, McCoysville.
 Brady F. Long, Mifflin.

LACKAWANNA COUNTY (SCRANTON)

Raymond J. Garvey, Medical Arts Bldg., *President*.
 Charles E. Thomson, Jr., 345 Wyoming Ave., *Secretary*.
 John J. Brennan, 230 S. Main Ave.
 Martin T. O'Malley, 206 Connell Bldg.
 Albert J. Winebrake, Medical Arts Bldg.
 Leonard G. Redding, Scranton Life Bldg.
 Charles Falkowsky, Jr., Medical Arts Bldg.
 Stanley W. Boland, Archbald.
 James D. Lewis, 204 W. Market St.
 John E. Manley, 1414 Pittston Ave.
 Arthur E. Davis, Dime Bank Bldg.

LANCASTER COUNTY (LANCASTER)

Willis H. Lefever, 234 N. Duke St., *President*.
 Charles P. Stahr, 139 E. Walnut St., *Secretary*.
 Clarence R. Farmer, 573 W. Lemon St.
 Joseph Appleyard, 152 E. Walnut St.
 Dale E. Carey, 204 E. King St.
 James Z. Appel, 305 N. Duke St.
 Jacob E. Hostetter, Gap, R. D. 1.
 John H. Esbenshade, 445 N. Duke St.

LAWRENCE COUNTY (NEW CASTLE)

Walter L. Campbell, 414 E. Moody Ave., *President*.
 William A. Womer, 134 N. Mill St., *Secretary*.
 Thomas M. Shaffer, 210 E. Euclid Ave.
 Angelo M. Gigliotti, Ellwood City.
 David L. Perry, New Castle.

LEBANON COUNTY

Warren H. Brubaker, Lebanon, *President*.
 J. DeWitt Kerr, Lebanon, *Secretary*.
 J. DeWitt Kerr, Lebanon.
 John D. Boger, Lebanon.
 John L. Groh, Lebanon.

LEHIGH COUNTY (ALLENTOWN)

Robert L. Schaeffer, 32 N. Eighth St., *President*.
 J. Treichler Butz, 40th & Hamilton Sts., *Secretary*.
 John J. Wenner, 941 Hamilton St.
 Martin S. Kleckner, 202 N. Eighth St.
 John J. Bernhard, 1629 Turner St.

Lawrence C. Milstead, Sacred Heart Hospital.
 Alexander M. Peters, 45 N. Eleventh St.
 Clifford H. Trexler, 349 N. Seventh St.

LUZERNE COUNTY (WILKES-BARRE)

Joseph P. Dougherty, 41 N. Main St., Ashley, *President*.
 Irving O. Thomas, 425 N. Washington St., *Secretary*.
 Lewis T. Buckman, 83 S. Franklin St.
 Manfred H. Kudlich, 65 N. Laurel St., Hazleton.
 John R. Dyson, 22 N. Church St., Hazleton.
 Thomas R. Gagon, 23 Broad St., Pittston.
 H. Gordon Guyler, 36 Mallory Pl.
 Francis T. O'Donnell, 345 N. Main St.
 Albert R. Feinberg, 219 S. Franklin St.
 Michael J. Murphy, 8 Curtis St., Pittston.
 Thomas F. Flemming, 1240 Wyoming Ave., Exeter.
 Charles L. Shafer, 219 College Ave., Kingston.
 A. Burton Smith, 394 Wyoming Ave., Wyoming.
 Almon C. Hazlett, 418 Wyoming Ave., Wyoming.

LYCOMING COUNTY (WILLIAMSPORT)

Herbert P. Haskin, 324 High St., *President*.
 Walter S. Brenholtz, 151 E. Third St., *Secretary*.
 LaRue M. Hoffman, 2232 W. Fourth St.
 Galen D. Castlebury, 217 E. Third St.
 Wilfred W. Wilcox, Montoursville.
 Wilbur E. Turner, Montgomery.
 Charles L. Youngman, Medical Arts Bldg.
 Lee M. Goodman, Jersey Shore.

McKEAN COUNTY

Guy S. Vogan, Kane, *President*.
 Persis S. Robbins, Bradford, *Secretary*.
 Francis DeCaria, Bradford.
 Milo W. Cox, Kane.
 Persis S. Robbins, Bradford.

MERCER COUNTY

James D. Hoffman, Grove City, *President*.
 Jonathan B. Perrine, Grove City, *Secretary*.
 William W. Richardson, Mercer.
 Patrick E. Biggins, Sharpsville.
 John M. Jamison, Grove City.

MIFFLIN COUNTY

George R. Barnett, Lewistown, *President*.
 James A. C. Clarkson, Lewistown, *Secretary*.
 Charles J. Stambaugh, Reedsville.
 Raymond R. Decker, Lewistown.
 James G. Koshland, Lewistown.

MONROE COUNTY

Charles A. LeCates, Tannersville, *President*.
 Roscoe Vander Bie, Stroudsburg, *Secretary*.
 Harold B. Flagler, Stroudsburg.
 Henry N. Thissell, Tannersville.

MONTGOMERY COUNTY

Elwood T. Quinn, Jenkintown, *President*.
 Edgar S. Buyers, 1533 DeKalb St., Norristown, *Secretary*.
 Walter J. Stein, Ardmore.
 Herbert B. Shearer, Worcester.
 Camille J. Flotte, Norristown.
 J. Newton Hunsberger, Norristown.
 Philip J. Lukens, Ambler.
 J. Elmer Gotwals, Phoenixville.

MONTGOMERY COUNTY (DANVILLE)

Henry F. Hunt, Geisinger Hospital, *President*.
 Sydney J. Hawley, Geisinger Hospital, *Secretary*.
 J. Allen Jackson, State Hospital.
 Francis W. Davison, Geisinger Hospital.
 Cameron Shultz, 116 Bloom St.

NORTHAMPTON COUNTY (EASTON)

Francis J. Conahan, 114 W. Fourth St., Bethlehem, *President*.

Frederick O. Zillessen, 256 Bushkill St., *Secretary*.
 Paul Correll, First Natl. Bank Bldg.
 W. Gilbert Tillman, 1730 Washington St.
 Clinton F. Stofflet, Pen Argyl.
 Arno R. Zack, 216 E. Broad St., Bethlehem.
 James E. Brackbill, 111 Market St., Bangor.
 Harvey O. Rohrbach, 540 N. New St., Bethlehem.

NORTHUMBERLAND COUNTY

Isadore E. Smigelsky, 6 N. Oak St., Mt. Carmel, *President*.
 Mark K. Gass, 910 Market St., Sunbury, *Secretary*.
 George W. Reese, State Hospital, Shamokin.
 Andrew B. Buczek, New Victoria Bldg., Mt. Carmel.
 James G. Strickland, 409 Spurzheim St., Shamokin.

PERRY COUNTY

.....*President*.
 John E. Romig, Duncannon, *Secretary*.

PHILADELPHIA COUNTY (PHILADELPHIA)

George C. Yeager, 1419 E. Susquehanna Ave., *President*.
 Henry G. Munson, S. E. Cor. 21st & Spruce Sts., *Secretary*.
 Francis F. Borzell, 4940 Penn St., Fkfd.
 Ralph Getelman, 2011 Chestnut St.
 George E. Johnson, 5341 Chester Ave.
 George P. Müller, 1930 Spruce St.
 Eldridge L. Eliason, 326 S. 19th St.
 Chevalier L. Jackson, 3432 N. Broad St.
 Ross V. Patterson, 2126 Spruce St.
 Edward L. Bortz, 2021 Girard Ave.
 Clifford B. Lull, 1731 Pine St.
 William E. Parke, 1534 N. 15th St.
 L. Waller Deichler, 1930 Chestnut St.
 Frank H. Krusen, York Rd. & Cheltenham Ave.
 Pascal F. Lucchesi, 1838 S. Broad St.
 John W. Bransfield, 2101 Spruce St.
 C. Howard Moore, 1726 Spruce St.
 Nathan Blumberg, 1922 Spruce St.
 James H. Mendel, Gtn. Professional Bldg., Gtn.
 Jacob Gershon-Cohen, 255 S. 17th St.
 Harold F. Robertson, 327 S. 17th St.
 William F. Moore, 225 S. Sixteenth St.
 Edwin B. Miller, 259 S. 19th St.
 Charles F. Nassau, 1710 Locust St.
 Richard W. Larer, 1407 E. Columbia Ave.
 Douglas Macfarlan, 1805 Chestnut St.
 Miriam Warner, 21 W. School House Lane.
 Frieda Baumann, 1930 Chestnut St.

Edward W. Beach, 4400 Walnut St.
 Charles R. Heed, 1205 Spruce St.
 Samuel Leopold, 1923 Spruce St.
 Seth A. Brumm, Medical Arts Bldg.
 John H. Remig, 4734 Osage Ave.
 Joseph A. Daly, 115 E. Lehigh Ave.
 Thomas R. Currie, 512 W. Lehigh Ave.
 Paul B. Cassidy, 2037 Pine St.
 Charles A. Heiken, 5300 Cedar Ave.
 John T. Farrell, Jr., 1301 Spruce St.
 Joseph W. Post, Wyncote.
 Stephen E. Tracy, 1930 Chestnut St.
 J. Norman Henry, 1906 Spruce St.
 Thomas A. Shallow, 1609 Spruce St.
 John B. Flick, 629 Old Guelph Rd., Bryn Mawr.
 Francis Ashley Faight, 5006 Spruce St.
 William T. Johnson, 2008 Walnut St.
 Wilmer Krusen, 17 Bailey Rd., Lansdowne.
 T. Ruth Weaver, 1433 Spruce St.
 Charles N. Sturtevant, 4321 Frankford Ave.

Joseph T. Cadden, 5259 Whitaker St.
 John W. Klopp, 618 W. Lehigh Ave.
 Archibald L. McKinley, 3702 N. Broad St.
 Harry W. Goos, 2033 E. Dauphin St.
 Isidor P. Strittmatter, 999 N. Sixth St.
 Leonard C. Hamblock, 2230 S. Broad St.

Henry B. Kobler, 63d & Media Sts.
 William N. Bradley, 1725 Pine St.
 E. Treichler-Reedy, 3101 Millvale Ave.
 John D. McLean, 3301 Lancaster Ave.

Basil R. Beltran, 2109 Locust St.
 Josephus T. Ullom, 160 W. Carpenter Lane, Gtn.

Paul J. Pontius, 1831 Chestnut St.
 George F. Enoch, 8037 Frankford Ave.
 David N. Kremer, 5904 Spruce St.
 Frederick S. Baldi, Dexter and Green Lanes, Rxb.
 John Halbert Dugger, 2725 N. 12th St.
 Samuel A. Loewenberg, 1905 Spruce St.

POTTER COUNTY

.....*President*.
 Ross H. Jones, Coudersport, *Secretary*.

SCHUYLKILL COUNTY

Francis M. Quinn, Minersville, *President*.
 Arthur B. Fleming, Tamaqua, *Secretary*.
 T. Lamar Williams, Mt. Carmel.
 J. Stratton Carpenter, Pottsville.
 Thomas J. McGurl, Minersville.
 Christian Gruhler, Shenandoah.
 Ivor D. Fenton, Mahanoy City.
 John S. Monahan, Shenandoah.

SOMERSET COUNTY

W. W. Westfall, Somerset, *President*.
 Bradley H. Hoke, Meyersdale, *Secretary*.
 Charles I. Shaffer, Ralphton.
 Henry I. Marsden, Somerset.
 Clinton T. Saylor, Rockwood.

SUSQUEHANNA COUNTY

Harvey M. Fry, Rush, *President*.
 Edward R. Gardner, Montrose, *Secretary*.
 Laurance M. Thompson, Montrose.
 Park M. Horton, New Milford.
 James J. Grace, Montrose.

TIOGA COUNTY

Harry W. Howland, Gaines, *President*.
 Solomon P. Hakes, Tioga, *Secretary*.
 Kenneth W. Watterson, Blossburg.
 John H. Doane, Mansfield.
 Howard M. Farwell, Westfield.

VENANGO COUNTY

John C. Wilkins, Oil City, *President*.
 Harry H. Lamb, Oil City, *Secretary*.
 Ford M. Summerville, Odd Fellows Temple, Oil City.
 Paul R. Cunningham, 1026 Liberty St., Franklin.
 Franklin P. Phillips, Box 150, Franklin.

WARREN COUNTY

William M. Cashman, Warren, *President*.
 Hamblen C. Eaton, State Hospital, Warren, *Secretary*.
 Hamblen C. Eaton, State Hospital, Warren.
 Robert B. Mervine, Sheffield.
 Monroe T. Smith, 507 Pennsylvania Ave., E., Warren.

WASHINGTON COUNTY

Milton F. Manning, Beallsville, *President*.
 Albert E. Thompson, Washington Trust Bldg., Washington, *Secretary*.
 James H. Corwin, Washington.
 William A. LaRoss, McDonald.
 Harry J. Repman, Charleroi.
 Laurrie D. Sargent, 6 S. Main St., Washington.
 Robert E. Conner, Hickory.
 Samuel A. Ruben, Washington.

WAYNE-PIKE COUNTY

Alfred H. Catterall, Hawley, *President*.
 Robert C. Canivan, Honesdale, *Secretary*.

Robert G. Barckley, Milford.
William T. McConville, Honesdale.
H. L. Masters, White Mills.

WESTMORELAND COUNTY

Nathan A. Kopelman, New Kensington, *President*.
Charles D. Ambrose, Ligonier, *Secretary*.
Joseph G. Alter, Broad Bldg., New Kensington.
Prentiss A. Brown, 859 Fourth Ave., New Kensington.
G. T. Lamon, 816 Fifth Ave., New Kensington.
R. E. Lee McCormick, Irwin.
Gervaise F. Nealon, Latrobe.
H. Albert McMurray, Youngwood.

WYOMING COUNTY

Van C. Decker, Nicholson, *President*.
Arthur B. Davenport, Tunkhannock, *Secretary*.
Lorne T. MacDougall, Tunkhannock.
William W. Lazarus, Tunkhannock.

YORK COUNTY (YORK)

Robert L. Ellis, 259 E. Market St., *President*.
Clarence W. Frey, Dallastown, *Secretary*.
Martha L. Bailey, Dillsburg.
Oscar A. Delle, York New Salem.
William A. Myers, 958 E. Market St.
J. Ferdinand Klinedinst, 220 S. George St.
Harry M. Read, 141 E. Market St.
George E. Martz, 114 E. Market St.

REPORTS OF OFFICERS

REPORT OF THE SECRETARY

To the President and House of Delegates:

Membership

Our average paid membership on Aug. 17 during the 5 years, 1930-1934, was 7740. On Aug. 17, 1935, it was 8018, or 213 more than on the same date in 1934, in spite of a loss of 185 members during the period by death, removal, and resignation. The following is the component society distribution for 1934 and 1935 respectively: Adams County, 25, 24; Allegheny, 1301, 1299; Armstrong, 46, 48; Beaver, 83, 89; Bedford, 14, 15; Berks, 162, 171; Blair, 97, 98; Bradford, 39, 39; Bucks, 61, 60; Butler, 52, 49; Cambria, 169, 174; Carbon, 30, 32; Center, 24, 24; Chester, 103, 103; Clarion, 30, 29; Clearfield, 58, 63; Clinton, 22, 23; Columbia, 33, 33; Crawford, 49, 56; Cumberland, 37, 36; Dauphin, 203, 209; Delaware 143, 159; Elk, 24, 24; Erie, 147, 158; Fayette, 113, 109; Franklin, 62, 62; Greene, 28, 26; Huntingdon, 27, 29; Indiana, 48, 44; Jefferson, 47, 48; Juniata, 6, 5; Lackawanna, 227, 258; Lancaster, 170, 173; Lawrence, 68, 73; Lebanon, 28, 33; Lehigh, 144, 147; Luzerne 315, 320; Lycoming, 117, 115; McKean, 40, 48; Mercer, 74, 72; Mifflin, 23, 27; Monroe, 21, 26; Montgomery, 173, 186; Montour, 36, 40; Northampton, 143, 137; Northumberland, 76, 81; Perry, 11, 8; Philadelphia, 2067, 2102; Potter, 13, 12; Schuylkill, 158, 158; Somerset, 39, 40; Susquehanna, 13, 15; Tioga, 23, 26; Venango, 53, 56; Warren, 42, 45; Washington, 117, 128; Wayne-Pike, 21, 22; Westmoreland, 152, 163; Wyoming, 13, 14; York, 131, 140.

Six societies show no change in membership; 38 show a gain; 16 a loss.

During the year we lost 145 members by death, 22 by removal, and 18 by resignation.

Increased Membership

A careful reading of the opening paragraphs of the secretary's report brings to mind definite accomplishments, as well as remaining opportunities for increasing the membership of many of our component societies.

Why should not *all* eligible doctors of medicine in Pennsylvania share with the county medical society members in the expense and the work necessary to develop and retain high standards of medical training and freedom in medical practice?

The discharge of county medical society membership obligations brings to all *nonmember* physicians certain tangible benefits without cost to the latter; for instance,

(a) The development of improved public relations;

(b) The defense of private forms of medical practice;

(c) A hitherto thoughtlessly accepted protection against legislative attempts at limitation of our therapeutic practices.

Considering the open endeavor of the chiropractic association, in House Bill No. 494 introduced in the 1935 Pennsylvania legislature, to limit to chiropractors only the examination or treatment of the human spinal vertebrae or adjacent tissues by physical means, suggests our right to challenge any eligible *nonmember* physician in a given county to explain how he retains his self-respect while permitting his neighborhood practitioners to underwrite most of the benefits of practice which he enjoys.

Teamwork Important

In the judgment of the secretary of the society the year just closing has been marked by better teamwork than ever before between the integrals—county, state, and national medical societies. This, we believe, has been due largely to the unity that develops from a practical yet common determination to attain a common purpose, such as has been manifest in the consistent effort to prevent our state and nation from being stampeded into the adoption of unwise legislation in connection with so-called social security insurance as related to sickness service.

For this accomplishment the secretary wishes to emphasize the great contribution of many of our own component county medical societies by acceptance for publication in their own periodicals of informative material supplied them by our State Society; also to bring to the complimentary attention of the House of Delegates the splendid response of the officers and committee representatives of the various component societies to the several questionnaires, suggestions, and requests for program assignments, and the publication in their bulletins of material from various officers and standing and special committees of our State Society. The distribution of this material through the secretary's office has eclipsed in the past year the work of all previous years and has increased to approximately 50,000 the number of pieces of mail sent out at a total expenditure for postage of \$1050.

The secretary at the same time wishes to praise the consistent and invaluable help, in the development and maintenance of the continuity of our highest purposes, which has been received from the office of the secretary of the American Medical Association and its various bureaus, more notably the Bureaus of Legal Medicine, Medical Economics, and Health and Public Instruction, as well as the Committee on Legislative Activities.

Attention is also called to 3 important subjects introduced in the 1935 House of Delegates of the American Medical Association which are discussed in the officers' department of the September PENNSYLVANIA MEDICAL JOURNAL, as indicative of the foresight and wisdom displayed in the deliberations of the legislative body of our national organization.

Medical Defense

Approved applications for defense against suits (summons served) for alleged malpractice, since the last report, total 8, numbering from 276 to 283 inclusive.

CASE No. 276. Summons served Aug. 28, 1934. Potts fracture. Claims malunion. No commercial insurance.

CASE No. 277. Summons served Sept. 24, 1934. Incomplete abortion. Claims negligence.

CASE No. 278. Summons served Nov. 1, 1934. Laryngeal diphtheria resulting in death. No indemnity insurance.

CASE No. 279. Summons served Nov. 22, 1933. Alleges improper treatment of acute eye condition. No indemnity insurance.

CASE No. 280. Summons served Mar. 11, 1935. Alleges neglect following removal of a cyst over the external malleolus. Application never completed.

CASE No. 281. Infection of toe. Alleges improper treatment. Requests moral support only.

CASE No. 282. Summons served June 12, 1934. Claims rubber drainage tube left in abdomen at operation for appendicitis 12 years ago.

CASE No. 283. Summons served May 29, 1934. Recurrent exophthalmic goiter. Claims negligence, carelessness, and heedlessness following partial thyroidectomy.

The following cases have been closed during the past year:

CASE No. 221. Alleged trespass (removal of pelvic organs without consent). Attorney reported Dec. 7, 1934, that since case was 3 years old it would not likely be pressed. Had no commercial insurance.

CASE No. 251. Plaintiff alleged death of wife due to failure of defendant to make promised professional call. Trial resulted in a directed verdict for the defendant. Had no commercial insurance.

CASE No. 255. Patient alleged medication caused confusional insanity. Attorney reported Dec. 7, 1934, that since case was over 2 years old it would probably lie dormant indefinitely. Had no commercial insurance.

CASE No. 274. Alleged very painful burn from diathermy treatment administered by defendant's son, also a physician and a member. Plaintiff granted voluntary nonsuit in 1934; action was then brought against defendant's son who had actually administered the treatment in his father's office. Trial June, 1934, resulted in compulsory nonsuit. Had no commercial insurance.

CASE No. 279. See above. Case settled on a nuisance value basis for \$150, with approval of the councilor for the district.

FINANCIAL STATEMENT

GENERAL FUND

Balance on hand Sept. 1, 1934 \$22,642.00

RECEIPTS

Dues (\$7.50) less allotments (\$1.10)	
8276 members (103 half year) including 258 for 1934	\$52,578.87
JOURNAL	7,895.40
Cancer blanks, health examination blanks, Roster	27.00
Annual session	6,172.50
Rent (9 mos.) from tenants, 230 State St.	812.60
Refund, city taxes 230 State St.	35.30
Refund, burglary insurance canceled	25.00
Miscellaneous	8.07
Transferred from Medical Defense Fund in payment of Vouchers Nos. 132, 151, 219, 268	963.02
Transferred from Medical Benevolence Fund in payment of Vouchers Nos. 87, 223, 224, 317, 352, 393, 459, 508	7,345.63
	\$75,863.39
	\$98,505.39

DISBURSEMENTS

Publishing JOURNAL and Official Transactions (includes Editor's salary and 65 per cent salaries Harrisburg office assistants)	\$25,765.31
Salaries (inclusive of 35 per cent salaries Harrisburg office assistants)	13,042.17
Transfer of funds (last 2 items under Receipts)	8,308.65
Committees, exclusive of Scientific Work Annual session	13,405.02
Travel expense	8,717.13
Reimbursement petty cash funds	2,542.34
Building improvements, furnishings	2,044.71
Printing, 1935 Roster, triplicate receipt books, letters to membership, booklets—dedicatory exercises, membership application blanks, etc.	2,214.04
Postage	1,178.61
Councilor district and commission meetings	1,050.00
Stationery and supplies (inc. mimeograph supplies)	857.90
Rert. Secretary's office and Com. Pub. Relations	666.49
230 State St., taxes, repairs, etc. (See Refund, under Receipts)	677.40
Furniture and fixtures	657.47
Auditing of accounts	724.65
Telegrams	280.00
Peoples-Pittsburgh Trust Co., service charge and interest on bonds called ..	142.93
Premium on officers' bonds, compensation insurance	95.53
Pennsylvania Chamber of Commerce, dues	38.20
Flowers (former President Shoemaker) ...	25.00
Miscellaneous	10.00
Tax on checks	46.36
	3.56
	\$82,493.47

BALANCE ON HAND, Sept. 1, 1935 \$16,011.92

GENERAL FUND—Special Account

Balance on hand Sept. 1, 1934	\$6,654.28
RECEIPTS	21.58
Interest on deposits	\$6,675.86

Order No.	DISBURSEMENTS	
66.	Lawrie & Green, architects, commission on plans and furnishings for building improvements, 230 State Street, Harrisburg, Vouchers Nos. 66, 239	\$356.21
90.	Office Equipment Co., book units for library, 230 State St.	139.16
111.	John Stapf, contractor, installment payments on building improvements, 230 State Street, Vouchers Nos. 111, 189, 217, 238	3,875.57
181.	Blue Ridge Nursery, shrubbery, 230 State Street	39.00
182.	John Wanamaker, furnishings, 230 State St., Vouchers Nos. 182, 313	727.90
183.	Cotterel Co., furnishings, 230 State St.	140.25
184.	I. H. Basehore Co., decorator, 230 State St.	210.70
185.	Blake Shop, furnishings, 230 State St.	475.00
186.	Danby Co., furnishings, 230 State St., Vouchers Nos. 186, 215, 240	516.00
218.	S. R. Lingle, decorator, 230 State St.	15.00
234.	Saml. Calvin, services a/c hanging painting, Dr. C. L. Stevens, 230 State St.	30.00
241.	N. Snellenburg, furnishings, 230 State St.	135.16
	Government tax on checks	.18
		\$6,660.13
	Balance on hand Sept. 1, 1935	\$15.73

MEDICAL DEFENSE FUND

Balance on hand Sept. 1, 1934	\$8,789.47
RECEIPTS	
Interest on investments	\$2,002.78
Interest on deposits	310.99
Membership allotments	854.38
N. Y. Central Lines bond matured June 1	1,000.00
	\$4,168.15
	\$12,957.62

* For explanation of difference of \$2744.95 between these figures and treasurer's report see Vouchers Nos. 344 and 345.

DISBURSEMENTS

Transferred to General Fund in payment of Vouchers Nos. 132, 151, 219, 268	\$963.02
Balance on hand Sept. 1, 1935	\$11,994.60

ENDOWMENT FUND

Balance on hand Sept. 1, 1934	\$5,424.70
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RECEIPTS

Interest on investments	\$1,926.66
Interest on deposits	162.52
	\$2,089.18
Balance on hand Sept. 1, 1935	\$7,513.88

MEDICAL BENEVOLENCE FUND

Balance on hand Sept. 1, 1934	\$24,775.51
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RECEIPTS

Interest on investments	\$4,340.63
Interest on deposits	904.06
Membership allotments	8,220.50
So. Pac. R. R. bond matured May 1	1,000.00
N. Y. Central Lines bonds matured June 1	6,000.00
Commonwealth Edison Co. bonds called July 22	5,100.00
Contributions as follows:	3,005.00
In memory Mrs. C. L. Frey, Lackawanna Co.; anonymous Lackawanna Co.; Mrs. Edgar S. Buyers, Montgomery Co.; Woman's Auxiliary to Medical Society of the State of Pennsylvania; Woman's Auxiliary to Medical Club of East Delaware Co.; Woman's Auxiliaries to the following county medical societies: Allegheny, Beaver, Berks, Blair, Butler, Chester, Clearfield, Clinton, Delaware, Erie, Fayette, Franklin, Greene, Huntingdon, Lackawanna, Lancaster, Lawrence, Lebanon, Lehigh, Luzerne, Lycoming, Mercer, Mifflin, Montgomery, Montour, Northampton, Philadelphia, Potter, Schuylkill, Tioga, Warren, Washington, Westmoreland, Wyoming, York.	\$28,570.19
	\$53,345.70

DISBURSEMENTS

Transferred to General Fund in payment of Vouchers Nos. 87, 223, 224, 317, 352, 393, 459, 508 ...	\$7,345.63
Balance on hand Sept. 1, 1935	\$46,000.07

DISBURSEMENTS—1934-1935

<i>Voucher No.</i>	
1. Herbert E. Hall, travel exp., Com. Sci. Work	\$35.06
2. Western Union Tel. Co., Vouchers Nos. 2, 43, 133, 150, 214, 261, 304, 348, 376, 416, 450, 484	142.93
3. W. H. Kinney, travel exp., Com. Sci. Work	20.00
4. A. B. Dick Co., mimeograph supplies, secy's office, Vouchers Nos. 4, 140, 145, 199, 253, 282, 329, 360, 393, 439, 469, 491	305.05
5. Walter F. Donaldson, Secy., travel exp., Vouchers Nos. 5, 68, 155, 174, 216, 257, 289, 309, 331, 392, 440, 468	619.34
6. Gratt L. Bell, auditor's serv., Vouchers Nos. 6, 156	280.00
7. J. O. Bower, travel exp., Com. Appendicitis Mortality	64.46
8. F. C. Hammond, Editor, travel & exp.	256.15
9. Max H. Weinberg, travel exp., Com. Med. Ec. Vouchers Nos. 9, 134, 226, 325	113.50
10. J. F. McCoy, legislative serv., Vouchers Nos. 10, 42, 127, 146, 203, 255, 280, 321, 357, 396, 448	275.00
11. American Med. Assn., 1934 Directory	12.00
12. Penn-Harris Hotel, committee meeting exp., Vouchers Nos. 12, 129, 198, 265, 302	66.66
13. E. Roger Samuel, trustees travel & exp., Vouchers Nos. 13, 466	114.67
14. Dorothy Fellows, services for Cancer Com.	24.00
15. Roy Jansen, travel & exp., for Com. Pub. Rel.	9.70
16. Horner, Doyle, Wright, mimeo, paper, printing, stationery, postcards, etc., Vouchers Nos. 16, 110, 138, 152, 201, 237, 276, 330, 363, 387, 417, 467, 513	1,177.93
17. Agnes J. McCarthy, asst. at registration	16.00
18. Mary Donnelly, asst. at registration	14.00
19. Lila Burke, asst. at registration	16.00
20. Mary A. Yerger, exp. at annual session	84.70
21. Mae Yeaton, exp. at annual session	29.65
22. F. E. Dillan, reporter, Gen. & Spec. sec., Vouchers Nos. 22, 98	255.73
23. L. H. Perry, exp. at annual session & A. M. A., Vouchers Nos. 23, 422	93.90
24. L. H. Perry, salary 12½ mos., Vouchers 24, 72, 119, 245, 294, 338, 369, 408, 426, 474, 496 ..	4,166.67

Voucher No.

25. Fern Leu, salary, Vouchers Nos. 25, 76, 124, 164, 211, 249, 299, 342, 373, 413, 431, 480 502	\$1,081.50
26. Ida L. Little, exp. at annual session	64.94
27. Jenkins Arcade Co., office rent, Vouchers Nos. 27, 71, 118, 165, 202, 252, 287, 318, 366, 407, 434, 482	677.40
28. C. L. Palmer, exp. acct., Com. P. H. L., Vouchers Nos. 28, 148, 187, 222, 258, 266, 269, 274, 316, 326, 353, 361, 391, 399, 449, 463, 512	4,138.26
29. J. J. Brennan, travel & exp., Com. P. H. L., Vouchers Nos. 29, 204, 509	100.00
30. Irem Temple, rental for annual session	1,000.00
31. Jacob Silverstein, erecting tech. & sci. ex. booths, Vouchers Nos. 31, 114	2,969.12
32. W. L. Walters, rental Elks' Aud. for Sec. Surg.	45.00
33. P. Hermance, rental Y. W. C. A. for Sec. Ped.	5.00
34. Mallow-Sterling Hotel, refreshments Pres. reception	275.75
35. Williams, Brown & Earle, rental motion picture machines	265.50
36. Mary A. Yerger, salary 1 week	75.00
37. Virginia D. Sutton, exp. at annual session	47.53
38. Appel & Weber, gavel for retiring president ..	23.30
39. J. J. Gillespie Co., framing testimonials	3.90
40. Fernsler Printery, registration cards	6.50
41. American Surety Co., premium secy's & treas.'s bonds, Vouchers Nos. 41, 144	28.20
44. F. T. O'Donnell, travel & exp., Com. Ped. Edu.	15.00
45. H. T. Price, travel & exp., Ped. Edu. & Med. Adv. Com., Vouchers Nos. 45, 95, 451	77.64
46. R. K. Rewalt, travel & exp., Com. Ped. Edu.	15.00
47. Jas. K. Everhart, travel & exp., Com. Ped. Edu.	22.75
48. R. A. Knox, travel & exp., Com. Ped. Edu.	10.20
49. J. M. Higgins, travel & exp., Com. Ped. Edu.	17.30
50. R. M. Tyson, travel & exp., Com. Ped. Edu.	6.50
51. Postmaster U. S. P. O., stamps, secy's office, Vouchers Nos. 51, 91, 166, 200, 254, 301, 327, 378, 402, 435, 486	1,050.00
52. Saml. Oppenheim, orchestra for Pres. reception ..	100.00
53. A. F. Abt, travel & exp., guest speaker	85.26
54. F. C. Holden, travel & exp., guest speaker	19.30
55. Pressed Steel Co., view boxes for sci. ex.	147.50
56. J. J. Downing, exp. acct. sci. exhibit	73.85
57. Fred Rankin, exp., guest speaker cancer meeting	63.66
58. Dean D. Lewis, exp., guest speaker, cancer meeting	25.00
59. S. P. Reimann, travel & exp. cancer meetings, Vouchers Nos. 59, 230	30.74
60. J. M. Lynch, exp., guest speaker cancer meeting	23.86
61. Ruth Fox, reporter, Sec. Derm.	51.40
62. Acme Elec. Co., serv. acct. sci. ex.	56.00
63. W. J. Kear, services acct. sci. ex., Vouchers Nos. 63, 106	171.71
64. Mary E. Reik, reporter, Sec. Surgery	166.70
65. Irene H. Snyder, reporter, House Delegates, Sec. Med.	274.50
66. See General Fund—special account.	
67. A. G. Trimble, buttons & badges	93.00
69. Walter F. Donaldson, Secy., salary, Vouchers Nos. 69, 116, 157, 205, 243, 290, 336, 367, 405, 424, 472, 493	6,000.00
70. Frank C. Hammond, Editor, salary, Vouchers Nos. 70, 117, 158, 206, 244, 291, 337, 368, 406, 425, 473, 514	3,600.00
73. Mae Yeaton, salary, Vouchers Nos. 73, 120 ..	187.50
74. Marian Foberg, salary, Vouchers Nos. 74, 122, 161, 209, 247, 296, 340, 377, 410, 428, 476, 498	1,200.00
75. Ida L. Little, salary, Vouchers Nos. 75, 123, 163, 210, 248, 298, 341, 372, 412, 430, 479, 501	2,400.00
77. Virginia D. Sutton, salary	125.00
78. Roy Jansen, salary, Vouchers Nos. 78, 126, 162, 213, 251, 297, 347, 375, 415, 433, 478, 500	3,600.00
79. R. H. McClellan, travel exp. acct. cancer meeting	26.09
80. R. C. Hamilton, travel exp. acct. cancer meeting	26.09
81. Howard Fox, travel & exp. guest speaker	16.97
82. H. G. Munson, Asst. Secy., travel & exp. acct. annual session	33.63
83. A. J. Bruecken, travel exp. acct. cancer meeting	55.35
84. Earl Vandergrift, travel exp. acct. cancer meeting	26.09
85. Andrew Wallhauser, travel exp. acct. cancer meeting	26.09
86. K. Yardumian, travel exp. acct. cancer meeting	26.09
87. Edw. B. Heckel, int. on benev. fund & contributions, Vouchers Nos. 87, 223, 224, 317, 352, 393, 459, 508	7,345.63
88. D. P. McCune, travel & exp., Com. Sci. Wk.	61.28
89. Walter F. Donaldson, reimburse petty cash, secy's office, Vouchers Nos. 89, 259, 328, 458	524.02

Voucher
No.

90. See General Fund—special account.	
92. L. K. Ferguson, travel & exp., Com. Work. Comp. Law, Vouchers Nos. 92, 171	\$20.50
93. Edw. Pardoe, travel & exp., Com. Work. Comp. Law	38.94
94. Nathan B'umberg, travel & exp., Com. Postgrad. Edu.	9.35
96. Moses Behrend, President, travel & exp., Vouchers Nos. 96, 149, 196, 271, 279, 358, 400, 485	609.28
97. R. A. Kern, travel & exp., Com. Sci. Work, Vouchers Nos. 97, 483	17.50
99. Catherine Sullivan, reporter, Sec. Pediatrics	110.62
100. Walter S. Brenholtz, travel & exp., Com. Med. Ec., Vouchers Nos. 100, 190, 311, 490	60.02
101. Progressive Press, printing 1935 trip. rct. books	216.00
102. H. L. Blumgart, exp. guest speaker	51.50
103. Russell Sage Fdu., Social work yearbook	4.00
104. Liberty Engrav. Co., Your Health mats	5.00
105. A. L. Luchi, exp. acct. sci. exhibit, Vouchers Nos. 105, 154, 180	718.72
107. Bell Telephone Co., service at annual session	35.65
108. Evangelical Press, printing, pub., and mailing JOURNAL, Vouchers Nos. 108, 147, 236, 270, 310, 319, 386, 401, 460, 506, 507	17,333.91
109. Evangelical Press, printing Roster, letters to membership, official program, etc., Vouchers Nos. 109, 142, 147, 236, 365, 386, 388, 401, 419, 460, 506	2,034.91
111. See General Fund—special account.	
112. L. H. Perry, reimburse petty cash fund, JOURNAL office, Vouchers Nos. 112, 173, 256, 307, 383, 456, 505	1,520.69
113. J. Allen Jackson, travel & exp., Com. Ment. Hygiene	7.63
115. R. S. Hotchkiss, exp. acct. sci. exhibit	9.00
121. Hyacinth Willers, salary, Vouchers Nos. 121, 160, 208, 246, 295, 339, 370, 409, 427, 475, 497	1,375.00
125. Willa Geidel, salary for Nov.	90.00
128. Chas. Falkowsky, travel & exp., Com. Pub. Rel. & Work. Comp. Law	40.00
130. W. M. Graham, reporter, Sec. Urology	56.96
131. Ralph Pemberton, exp. acct. sci. exhibit	149.69
132. Wm. A. Challeuer, atty., serv. Med. Def. case No. 251	532.02
135. Courier Press, supplies & printing, Vouchers Nos. 135, 349	80.50
136. C. Macfie Campbell, exp. guest speaker	64.00
137. F. P. Phillips, travel & exp., Com. Work. Comp. Law	33.75
139. Underwood Typewriter Co., typewriter, Com. Pub. Rel.	92.00
141. W. H. Mayer, travel & exp., Chr. Com. Pub. Rel., Vouchers Nos. 141, 305, 457	288.47
143. G. W. Hawk, travel exp. acct., cancer meeting	4.80
151. Evans, Bayard, Frick, attys., services Med. Def. cases Nos. 221, 255	200.00
153. F. F. Borzell, travel & exp., acct., Com. Med. Ec., Vouchers Nos. 153, 260, 283, 355, 398, 455, 492	394.63
167. J. B. Lowman, Treasurer, salary, Vouchers Nos. 167, 292, 403, 494	150.00
168. R. B. Evans, legal counsel, salary, Vouchers Nos. 168, 293, 404, 495	300.00
169. P. J. Lukens, travel & exp., Com. Med. Ec.	21.40
170. E. L. Bortz, travel & exp., Com. Med. Ec., Vouchers Nos. 170, 320	20.50
172. Alex. H. Stewart, trustees travel & exp., Vouchers Nos. 172, 312, 418	64.46
175. Alex. H. Colwell, travel & exp., Vouchers Nos. 175, 191, 262, 308, 384, 397, 488	156.74
176. Thelma Doege, salary, Vouchers Nos. 176, 212, 250, 300, 343, 374, 414, 432, 481, 503	814.00
177. J. D. Stark, travel & exp., Com. P. H. Legis. Vouchers Nos. 177, 286	93.86
178. F. J. Bishop, trustees travel & exp., Vouchers Nos. 178, 354, 487	239.56
179. A. S. Kech, trustees travel & exp., Vouchers Nos. 179, 436	121.45
181. See General Fund—special account.	
182. See General Fund—special account.	
183. See General Fund—special account.	
184. See General Fund—special account.	
185. See General Fund—special account.	
186. See General Fund—special account.	
188. D. W. Thomas, trustees travel & exp., Vouchers Nos. 188, 462	221.48
189. See General Fund—special account.	
192. C. G. Strickland, travel & exp., Com. Mat. Welfare	35.00
193. Shaw Walker, steel file	25.75
194. Standard X-ray Co., feet for view boxes	20.00
195. C. M. Smyth, Jr., travel & exp., Chr. Com. Work. Comp. Law, Vouchers Nos. 195, 362, 511	66.74
197. Lancaster Press, reprints, Cancer Com.	90.68
215. See General Fund—special account.	
217. See General Fund—special account.	
218. See General Fund—special account.	

Voucher
No.

219. Taylor, Schrader, Taylor, attys., services Med. Def. case No. 280	\$100.00
220. O. J. Klevan, travel & exp., Com. Mat. Welfare	5.00
221. Jacob Walker, travel & exp., Com. Mat. Welfare	5.00
225. Peoples-Pgh. Trust Co., service charge, Vouchers Nos. 225, 454	77.25
227. W. J. Larkin, travel & exp., Com. Mat. Welfare	20.00
228. W. H. Howell, travel & exp., Cancer Com.	2.80
229. G. W. Grier, travel & exp., Cancer Com.	25.00
231. G. E. Pfahler, travel & exp., Cancer Com., Vouchers Nos. 231, 381, 443	65.42
232. Penna. State Chamber Commerce, annual dues	25.00
233. Evans Sherratt Co., exp. acct. Sci. exhibit	15.00
234. See General Fund—special account.	
235. J. M. Armstrong, Inc., printing acct. Com. Mat. Welfare	69.25
238. See General Fund—special account.	
239. See General Fund—special account.	
240. See General Fund—special account.	
241. See General Fund—special account.	
242. Remington Rand, Inc., 400 filing boxes for library	300.00
263. Geo. A. Holliday, travel & exp., Com. Sci. Work	21.99
264. Harrisburger Hotel, exp. 5th Counc. Commission meeting	46.80
267. F. M. Jacob, travel & exp., Com. Sci. Work	26.95
268. Ledward & Hinkson, attys., services Med. Def. case No. 274	131.00
272. F. B. Utley, travel & exp., Com. Postgrad. Edu.	60.12
273. C. R. Phillips, trustees travel & exp., Vouchers Nos. 273, 461	142.15
275. J. A. F. Hall, city and school taxes, Vouchers Nos. 275, 442	451.59
277. H. W. Salus, travel & exp., Com. P. H. Legis.	18.00
278. Robt. Gilman, travel & exp., Com. Sci. Work, Vouchers Nos. 278, 389	20.00
281. E. S. Buyers, trustees travel & exp., Vouchers Nos. 281, 465	113.13
284. J. H. McFarland, photographs society bldg., Harrisburg	33.50
285. L. A. Irwin, printing, supplies & mailing service, Vouchers Nos. 285, 324, 350	102.41
288. K. Ketchum, services Pub. Rel. Com.	433.33
303. Franklin Print Co., reprints	9.00
306. Donald Guthrie, travel & exp., Chr. Com. Postgrad. Edu., Vouchers Nos. 306, 445	119.90
313. See General Fund—special account.	
314. Bowman Co., furnishings 230 State St.	1,733.27
315. Danhy Co., furnishings 230 State St.	166.10
322. Lawrie & Green, architects, final payment, a/c commission bldg. improvements, 230 State St.	236.12
323. N. Srellenburg Co., furnishings 230 State St.	45.05
332. P. N. Garrett Agency, fire ins. 3 yrs.	35.87
333. M. H. Taylor & Son, fire ins. 3 yrs.	81.86
334. Clarence Thumma, extra fire ins.	8.35
335. Peoples-Pittsburgh Trust Co., int. charge on bonds called	18.28
344. Medical Def. Fund, allotment from dues 2494 members*	249.95
345. Medical Benev. Fund, allotment from dues 2494 members*	2,495.00
346. Giles Co., flowers for former pres. I. G. Shoemaker, dec.	10.00
351. Hershey Estates, vacuum sweeper	81.90
356. Julia Hrdina, cancer prevention contest prize	50.00
359. Rufus Reeves, exp. acct. 1st Counc. Dist. meeting	6.85
364. Easton Hospital, 180 slides, Com. Appendicitis Mort.	40.00
372. Mary E. Taylor, librarian, salary, Vouchers Nos. 372, 411, 429, 477, 499	412.50
379. Mary E. Taylor, exp. special training course	89.89
380. G. A. Reed, trustees travel & exp.	104.50
382. Warren S. Reese, travel exp., Com. Sci. Work	18.00
385. Harnies & Salsbury, premium Work. Comp. Ins.	10.00
390. S. E. Hannestad, services a/c preparation Comp. Law amendments	150.00
394. E. W. Bixby, travel & exp., Com. Sci. Work	30.00
420. Butler Country Club, exp. 9th & 10th Councilor Commission meeting	52.80
421. H. F. Oves, county taxes	79.80
423. H. C. Winslow, reimbursement of expenses of regional cancer meeting	209.88
437. H. T. Karsner, exp. guest speaker 6th Counc. Dist. meeting	28.80
438. C. C. Higgins, exp. guest speaker 6th Counc. Dist. meeting	23.23
441. Ruth H. Weaver, exp. guest speaker, 5th & 6th Counc. Dist. meeting, Vouchers Nos. 441, 470	16.43
444. Elmer Hess, travel exp. cancer meeting	25.00
446. Northampton Co. Med. Soc., reimbursement of exp., regional cancer meeting	62.70
447. W. L. Estes, Jr., reimbursement of exp., regional cancer meeting	132.37
452. C. H. Smith, travel & exp., Med. Adv. Com.	26.00

* Allotments not made at time dues were deposited.

Voucher
No.

453. W. E. Robertson, travel & exp., Med. Adv. Com.	10.10
464. G. L. Lavery, travel & exp., Chr. Med. Adv. Com.	155.15
471. P. B. Hoeber Co., book "The Doctor & the Public"	5.10
489. Geo. C. Yeager, trustees travel & exp.	55.98
504. R. L. Anderson, trustees travel & exp.	313.58
510. F. W. Faxon Co., refund a/c JOURNAL subscription	2.50
Government tax on checks	3.74
Total	\$85,238.42

Your secretary acknowledges with appreciation the cooperation received from the officers of the State Society and its component societies, as well as from all committee chairmen and members, and the editor and managing editor of the JOURNAL.

Respectfully submitted,
WALTER F. DONALDSON, *Secretary*.

REPORT OF THE TREASURER

Sept. 1, 1934, to Sept. 1, 1935

GENERAL FUND

CHECKING ACCOUNT

RECEIPTS

To Cash—Balance on hand at beginning of fiscal year	\$22,642.00
Receipts during year	78,608.34
	\$101,250.34

DISBURSEMENTS

By Cash—Paid Vouchers Nos. 1 to 514, inclusive, except those charged to Special Account	\$85,238.42
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BALANCE ON HAND, Sept. 1, 1935 \$16,011.92

SPECIAL ACCOUNT

RECEIPTS

To Cash—Balance on hand at beginning of fiscal year	\$6,654.28
Interest on deposits	21.58
	\$6,675.86

DISBURSEMENTS

By Cash—Payment of Vouchers Nos. 66, 90, 111, 181, 182, 183, 184, 185, 186, 189, 215, 217, 218, 234, 238, 239, 240, 241, 313, plus government tax to Jan. 1, 1935 ..	\$6,660.13
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BALANCE ON HAND, Sept. 1, 1935 \$15.73

SPECIAL FUNDS

MEDICAL BENEVOLENCE FUND

RECEIPTS

To Cash—Balance on hand at beginning of fiscal year	\$24,775.51
Receipts during year	28,570.19
	\$53,345.70

DISBURSEMENTS

By Cash—Withdrawn for benefits	\$7,345.63
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BALANCE ON HAND, Sept. 1, 1935 \$46,000.07

MEDICAL DEFENSE FUND

RECEIPTS

To Cash—Balance on hand at beginning of fiscal year	\$8,789.47
Receipts during year	4,168.15
	\$12,957.62

DISBURSEMENTS

By Cash—Withdrawn for defense, etc.	\$963.02
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BALANCE ON HAND, Sept. 1, 1935 \$11,994.60

ENDOWMENT FUND

RECEIPTS

To Cash—Balance on hand at beginning of fiscal year	\$5,424.70
Receipts during year	2,089.18
	\$7,513.88

DISBURSEMENTS

By Cash—No disbursements	
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BALANCE ON HAND, Sept. 1, 1935 \$7,513.88

Cash Balances and Investments

CASH BALANCES

Total cash balances, Sept. 1, 1934	\$68,285.96
Total receipts during year	113,457.44
Total disbursements	\$181,743.40
	\$100,207.20

Total cash balances Sept. 1, 1935:	
General Fund, Special Account ...	\$15.73
General Fund, Checking Account ...	16,011.92
Medical Benevolence Fund	46,000.07
Medical Defense Fund	11,994.60
Endowment Fund	7,513.88
	\$81,536.20

INVESTMENTS

MEDICAL BENEVOLENCE FUND

Total investment in bonds at beginning of fiscal year	\$97,500.00
Bonds called for payment during year	12,000.00
Total investment Sept. 1, 1935	\$85,500.00

MEDICAL DEFENSE FUND

Total investment in bonds at beginning of fiscal year	\$50,500.00
Bonds called for payment during year	1,000.00
Total investment Sept. 1, 1935	\$49,500.00

ENDOWMENT FUND

Total investment in bonds at beginning of fiscal year	\$49,000.00
List of bonds unchanged during year	
Total investment Sept. 1, 1935	\$49,000.00

TOTAL INVESTMENTS IN SECURITIES \$184,000.00

TOTAL CASH BALANCES AND INVESTMENTS \$265,536.20

DETAILS OF INVESTMENTS

(Par values)

MEDICAL BENEVOLENCE FUND

Reg'd Liberty Bonds, 4th Series, 4¼%, 1933-38, Serial Nos. 198563-4	\$2,000.00
Coupon Liberty Bonds, 4th Series, 3¼%, 1946. Nos. 161642B. 161643C. 161644D	3,000.00
U. S. Treasury Bonds, 3½%, 1949. No. 8109K	5,000.00
U. S. Treasury Bonds, 4%, 1954, No. H00011518	5,000.00
U. S. Treasury Bonds, 3¼%, 1944-46 Nos. 8278J, 8279K, 8280L, 41947H ..	16,000.00
U. S. Treasury Bonds, 2½%, 1955, Nos. 158204D, 158205E, 158206F, ..	3,000.00
Illinois Central R. R. Co., 4¾%, 1966, Nos. 28011-12-1592-1593-1594	3,500.00
American Telephone & Telegraph, 5½%, 1943. Nos. 81983-59558-28598-28599-28600	5,000.00
Penna. R. R. Co., 5%, 1964, No. 42561 ..	1,000.00
*Chicago, Milwaukee & St. Paul, 5%, 1935, Nos. 6178-9-80	3,000.00
Baltimore & Ohio R. R., 5%, 2000, Nos. 27406-7-8-9-10	5,000.00
Buffalo, Roch'r & Pittsburgh, 4½%, 1957, Nos. 15588-26637-14977	3,000.00
*Wabash Railway Co., 5%, 1976, Nos. 6852-6853	2,000.00
Canadian National Rys., 4½%, 1957, Nos. 62992-62993	2,000.00
Chesapeake Corporation, 5%, 1947, Nos. 40706-40707-40708-40709	4,000.00
Carolina, Clinchfield & Ohio Ry., 6%, 1952, Nos. M6035-7231-3787-6001-6002 ..	5,000.00
Ontario Power Co. of Niagara Falls, 5%, 1943, Nos. 05361-2-3-4-09755	5,000.00
Minnesota Power & Light, 1st & Ref., 4½%, 1978, Nos. 11566-7-8-9-11570 ..	5,000.00
Western Union Telegraph Co., 5%, 1960, Nos. 9627-8-9-9630-31	5,000.00
Corporate Stock City of N. Y., 4%, 1959, Nos. 582-583-2082	3,000.00
Total	\$85,500.00

MEDICAL DEFENSE FUND

Reg'd Liberty Bonds, 1st Series, 4¼%, 1933-38, Nos. 324243-4	\$2,000.00
Coupon Liberty Bonds, 4th Series, 4¼%, 1938, Nos. 1382125, 1385612-13-14 ..	4,000.00
U. S. Treasury Bonds, 3¼%, 1944-46, Nos. 8281A, 41948J, 41948K	7,000.00
U. S. Treasury Bonds, 2½%, 1955, No. 158614D	1,000.00

* Interest and principal defaulted July, 1935.

* Interest defaulted February, 1932.

Illinois Central R. R., 4½%, 1966, No. 1595	\$500.00
American Telephone & Telegraph Co., 5%, 1946, Nos. 55087-8-9-90-1-2-3-4-567923	10,000.00
Penna. Railroad Co., 5%, 1964, Nos. 21470-1-2-3-48549-50	6,000.00
Buffalo, Rochester & Pittsburgh, 4½%, 1957, Nos. 16369-70	2,000.00
Canadian National Rys., 4½%, 1957, No. 62994	1,000.00
Chesapeake Corporation, 5%, 1947, No. 40705	1,000.00
N. Y. Central Equip't, 4½%, 1937, Nos. 12551-15351	2,000.00
Lehigh Valley R. R. Co., 5%, 2003, Nos. 84178-9-80-81	4,000.00
†Western Pacific R. R. Co., 5%, 1946, Nos. 8204-5044-5-10347-18971	5,000.00
Chicago Union Station, 5%, 1944, No. 6729	1,000.00
Corporate Stock City of N. Y., 4%, 1959, Nos. 569-70-71	3,000.00
TOTAL	\$49,500.00

ENDOWMENT FUND

Reg'd. Liberty Bonds, 1st Series, 4¼%, 1932-47, No. 1653	\$5,000.00
U. S. Treasury Bonds, 3¼%, 1944-46, No. 41950L	1,000.00
U. S. Treasury Bonds, 2½%, 1955, Nos. 279933C, 279934D, 279935E, 279936F, 279937H, 114457H, 114458J	7,000.00
American Tel. & Tel., 5%, 1960, No. M24901	1,000.00
Penna. Railroad Co., 5%, 1964, No. 21469	1,000.00
Canadian National Rys., 4½%, 1957, Nos. 62995-6	2,000.00
Chicago & Northwestern Ry., 4¾%, 1987, Nos. 132938-134029-137409	3,000.00
Great Northern Ry., 4½%, 1976, Nos. 3894-5	2,000.00
Great Northern Ry., 4½%, 1977, Nos. 12439-40-1-2-13516	5,000.00
North American Edison, 5½%, 1963, Nos. 17926-7-8-9-17930	5,000.00
Niagara Falls Power Co., 6%, 1950, Nos. 4382-7118-7465	3,000.00
Chicago Union Station, 5%, 1944, Nos. 589-590-622-2871-2872-4395	6,000.00
‡Mobile & Ohio Railroad Ref. & Imp., 4½%, 1977, Nos. 3152-3-4-5	4,000.00
Corporate Stock City of New York, 4%, 1959, Nos. 572-573-574-575	4,000.00
TOTAL	\$49,000.00
TOTAL INVESTMENT IN SECURITIES	\$184,000.00

† Interest defaulted March, 1934.

‡ Interest defaulted September, 1932.

In addition to list of cash balances and securities shown in above report, the society holds title to the property at 230 State Street, Harrisburg, occupied by the library and the office of the PENNSYLVANIA MEDICAL JOURNAL.

Respectfully submitted,

J. B. LOWMAN,
Treasurer.

REPORT OF CHAIRMAN OF THE BOARD OF TRUSTEES

To the President and House of Delegates:

At the organization meeting of the Board of Trustees held in Wilkes-Barre, Oct. 3, 1934, after adjournment *sine die* of the House of Delegates, the following were duly nominated and elected to serve for one year: Chairman, Dr. Edgar S. Buyers; clerk, Dr. A. S. Kech; editor of the JOURNAL, Dr. Frank C. Hammond; legal counselor, Mr. R. B. Evans; manager of sessions and exhibits, Mr. Lester H. Perry.

The following newly elected members of the board were then presented: Dr. A. S. Kech of Altoona, elected by the House of Delegates to succeed himself for a term of 5 years, representing the Sixth Councilor District; Dr. George C. Yeager of Philadelphia, elected at the May, 1934, meeting of the Board of Trustees to

finish the unexpired term of Dr. George A. Knowles, deceased, having been elected to succeed himself for a term of 5 years, representing the First Councilor District.

The chairman announced the following committee appointments for the year, each committee to choose its own chairman: *Executive Committee*—Drs. Augustus S. Kech, George A. Reed, E. Roger Samuel; *Finance Committee*—Drs. Robert L. Anderson, Frederick J. Bishop, Alexander H. Stewart; *Publication Committee*—Drs. George C. Yeager, David W. Thomas, Arthur E. Crow; *Educational Committee*—Drs. Robert L. Anderson, Moses Behrend, Walter F. Donaldson. Each committee chose the above first-mentioned member as its chairman. *Benevolence Committee*—Drs. Howard C. Frontz, chairman; Clarence R. Phillips; Edward B. Heckel, treasurer; Walter F. Donaldson, secretary.

President Moses Behrend then submitted and the board approved his committee appointments as follows: *Public Health Legislation*—Drs. C. L. Palmer, chairman, J. J. Brennan, Arthur P. Keegan, James D. Stark, Henry W. Salus; *Public Relations Committee*, to serve 3 years—Drs. John P. Harley, Wilmer Krusen, Francis F. Borzell.

The board adopted December 11, the date for the next regular meeting of the Board of Trustees, as the day for the formal celebration of the opening of the new home and library of the society at 230 State Street, Harrisburg.

Trustee Anderson, chairman of the Finance Committee, presented the budget for the ensuing year, based upon estimated receipts for the year, and disbursements based on planned as well as previous expenditures. After some discussion the budget was unanimously approved.

The request of the Finance Committee for advice from the board as to the investment of cash in the various funds resulted in recommendations to continue to carry the cash in the savings accounts of the Union Trust Company of Pittsburgh and the Peoples-Pittsburgh Trust Company at current rates of interest.

President Behrend announced his purpose to support enthusiastically the postgraduate instruction program and his intention to reappoint retiring President Guthrie as chairman of the committee, whose program would be similar to that of last year.

It was unanimously agreed that the board undertake a study of possible advantages to accrue to the effectiveness of the work of the society by revising the present make-up of the councilor districts, such recommendations, if any, to the 1935 House of Delegates to be prepared and proposed at least 90 days before the eighty-fifth annual meeting. Dr. Samuel was made chairman of the survey, with instructions to each councilor and trustee to study the situation and offer a preliminary report to Chairman Samuel before the February meeting (see proposed changes in the By-laws, June, 1935, PENNSYLVANIA MEDICAL JOURNAL, page 741; also page 1008, this issue).

Past-President A. C. Morgan, a member of the State Board of Medical Education and Licensure, presented and discussed the present law enforcement plans of the state authorities against illegal practitioners, describing the machinery as consisting of an attorney located in the attorney-general's office, with 17 or 18 investigators employed, who follow up the complaints transmitted to the bureau. The subsequent report, he stated, is always submitted to the complainant.

The board sustained the action of the Publication Committee, making the tenth day of the previous month

the final day for the receipt by the Journal office of material for publication in the PENNSYLVANIA MEDICAL JOURNAL for the following month.

The December meeting of the Board of Trustees was held in the library of the new building, 230 State Street, Harrisburg. This was the first official meeting of any kind held in the new building.

The board formally confirmed the mail vote dated Nov. 22, 1934, acceding to a request that our society join with the Philadelphia County Medical Society, the Philadelphia Hospital Association, the Philadelphia Health Council, and other organizations in sponsoring a joint medical social survey concerning the character of medical care available in the County of Philadelphia, the detailed study of 2000 or more cases to be based on interviews by a committee composed of a physician and a social worker. The vote of the Board of Trustees approved this proposal, which had been previously approved by Chairman F. F. Borzell and Edward L. Bortz of the State Society Committee on Medical Economics.

The Building Improvements Committee reported that the remodeled building and the new building were complete and occupied.

A standing vote of thanks was tendered the Building Improvements Committee, Drs. Kech, Bishop, and Phillips, for the completion of the work, and a motion duly made and adopted authorized the Executive Committee to procure a suitable bronze tablet setting forth appropriately the history of the completion of the improvements and of the new building.

The Publication Committee, Dr. Yeager, chairman, stated that an application offer had been received from a firm to place its advertisement for gin in the PENNSYLVANIA MEDICAL JOURNAL. The Board disapproved acceptance of the proposed advertisement.

The chairman urged a warning to the membership against the danger of burns arising from the use of roentgen-ray and electric physical therapy apparatus by the inexperienced, stating that such was the basis of several recent suits for alleged malpractice.

The secretary read a communication from the Chicago Medical Society protesting against the nation-wide broadcasting activities of the National Advisory Council on Radio Education. It was the opinion of the board that our society should join in protest against the one-sided character of the series on compulsory health insurance.

A motion prevailed authorizing the chairman to appoint a committee with power to establish the Package Library Service authorized at the October meeting. Trustee Phillips, Editor Hammond, and Secretary Donaldson were appointed on the Library Committee, Dr. Phillips as chairman. The services of a librarian were engaged in April, 1935.

The greatly increased expenses incidental to the conduct of the 1934 session were freely discussed. It was unanimously decided that no annual session committee shall again be permitted expenditures in excess of the amount previously allotted to it.

A general discussion of current problems included the following:

1. President-elect Colwell in visiting county medical societies is urging them to seek opportunities to have informed members speak on socialized medicine before lay groups.

2. The Allegheny County Society has a study group taking instruction in public speaking to prepare themselves to talk before such lay groups.

3. Each county society should choose representatives

of their society to prepare themselves to lead the discussion of medico-socio-economic problems.

4. Secretary Donaldson was instructed to express to President Franklin D. Roosevelt and Secretary Frances Perkins our society's position on changes in the forms of sickness service (see January, 1935, PENNSYLVANIA MEDICAL JOURNAL).

5. President Behrend discussed the newly enacted Motor Accident Lien Laws of New Jersey.

The meeting adjourned to meet again in the afternoon to hear the reports of the chairmen of various committees of the State Society.

The afternoon meeting was called to order at 4:40. Chairman Lukens, of the Committee on Medical Economics, presented a review of the committee's deliberations of the day.

Dr. Lukens advised the creation of 5 subcommittees:

1. Subcommittee on participation of lay workers in professional activities.

2. Subcommittee on health department activities.

3. Subcommittee on hospital economics, relation of hospital and dispensary practice—a member of the visiting staff to be on each hospital board of trustees, etc.

4. Subcommittee on industrial medicine and contract practice.

5. Subcommittee on nursing relations.

The board in accepting Chairman Lukens' report approved the proposal to create the subcommittees, and by a motion formally adopted each member of the board agreed to forward promptly to Dr. Lukens the names of society members in their respective councilor districts believed to be worthy, by reason of local experience, to be appointed to any or all of the above mentioned subcommittees.

Chairman C. L. Palmer of the Committee on Public Health Legislation reported 31 counties as having organized legislative conference committees. Where other groups are interested in the same proposed legislative measures that concern the medical profession, the committee expects to coöperate, as in the revision of the poor laws of the state of Pennsylvania introduced by the Pennsylvania Public Charities Association.

The Workmen's Compensation Act amendments proposed by our House of Delegates are receiving the committee's careful attention.

Chairman Palmer then presented the adopted policy of his committee toward proposed sickness insurance legislation:

1. Stress the excessive cost entailed to carry out proposed provisions of the model social security bill.

2. Opposition to political domination of private medical practice.

3. Owing to the current chaotic economic conditions only emergency measures should be adopted at present.

4. Will be prepared to coöperate with our Medical Economics Committee in presenting its proposal to counteract any seriously threatening measure which may be introduced.

Chairman Laverty of the Medical Advisory Committee, in his report to the board, stated that the committee hoped to be able to secure liberalization in the emergency medical relief orders for participating physicians treating beneficiaries suffering from pertussis, pneumonia, acute venereal diseases, and certain fractures.

The Advisory Committee has used its influence throughout the state in building up a program leading to growing confidence of the relief patient, the general public, and our legislators in medical society administration of emergency medical relief and child welfare,

so that in the future sickness service may continue to develop and rest thereon.

At the February meeting of the board, Chairman Yeager of the JOURNAL Committee, in presenting the committee's report, called attention to the increased number of advertisements. The discussion brought out the deplorable lack of interest by members of the society who read the advertisements, as reflected in the very small number who mention the PENNSYLVANIA MEDICAL JOURNAL when writing to our advertisers. This neglect as reported by the Coöperative Medical Advertising Bureau of the American Medical Association led to the adoption of a motion containing a strong recommendation that councilors should endeavor promptly and consistently to interest the membership in their respective councilor districts, pointing out that the net cost to the society of publishing the JOURNAL is largely dependent upon membership support of our advertisers who now pay approximately one-third of the gross costs.

A motion was adopted, on account of increasing demands, authorizing a transfer from time to time to the treasurer of the Benevolence Committee such amounts as are needed from the cash contributions (not allotments) to the cash principal of the Benevolence Fund.

The board decided that an appropriate number of reprints from the February JOURNAL dealing with the dedication exercises of the new building should be prepared and distributed.

The board also directed the extension of invitations to the Secretary of Health and the Secretary of Welfare to attend the meetings of the Board of Trustees at any time they cared to present or discuss topics of mutual interest to their respective state departments and to the membership of our society.

Past-President Guthrie reported regarding the county societies that have accepted or are planning to accept the State Society plan for postgraduate study.

Dr. Francis F. Borzell, of Philadelphia, appointed chairman of the Committee on Medical Economics upon the resignation Dec. 26, 1934, of Dr. Philip J. Lukens, discussed proposals for medico-economics surveys in Philadelphia, Dauphin, and one or two other Pennsylvania counties, advising that they be coöordinated as far as possible under the State Society Committee on Medical Economics, the actual surveys to be paid for from LWD funds, but any preliminary work necessary to decision on plans and the adoption of forms and blanks to be financed by our State Society. Unanimous action by the board in accepting Dr. Borzell's report included approval of the payment of such bills contracted, submitted, and approved in the customary carefully considered and controlled manner.

Chairman Borzell also discussed an economics meeting held in New York, which was addressed by President Milbank of the Milbank Fund. He reported on an informal interstate conference attended by Dr. Bortz and himself of his committee at Atlantic City for the purpose of coöordinating the medical economics activities of the Maryland, New Hampshire, New Jersey, New York, Pennsylvania, and the District of Columbia medical societies, all of which were represented at the conference.

Chairman Laverty of the State Medical Advisory Committee spoke of the changes that may be necessary in emergency medical relief during the second year of its activities. The committee has been impressed with the thought that an impersonal survey must be made in some county which is part industrial and part rural,

such as Dauphin County, in which 500 to 1000 families shall be interviewed and studied with great care as to their economic and sickness experience and status. The secretaries of the health and welfare departments are willing to coöperate in this project if the county and state medical societies approve the same.

It is expected that the rules and regulations governing medical relief will be rewritten within a short time.

A meeting of the Advisory Committee is planned after March 1 to study this problem. The uneven distribution of emergency relief cases among physicians, laboratory, and consultation practice and the amelioration of cuts by the SERB of physicians' bills are among the problems pressing for solution which have also arisen during the past year.

Chairman Palmer of the Public Health Legislation Committee reported on bills introduced which have the approval and disapproval of his committee. He also reported on the tardiness of some component society representatives in replying to requests from his committee for contacting or reporting on the position of their senators and representatives in relation to certain measures.

Chairman Mayer of the Public Relations Committee had his report presented by Dr. R. L. Anderson. The report included the recommendation that Chairman Borzell of the Committee on Medical Economics be sent as an observer to the February 15 special meeting of the House of Delegates of the American Medical Association, and the necessary expense account of Dr. Borzell be paid. Upon motion it was so ordered.

Dr. Anderson, speaking for President-Elect Colwell, requested members of the board to aid in minimizing demands from county societies for his appearance at meetings so as to conserve his energies at present for his appearances to discuss legislation before lay groups. The board expressed full accord with his sentiments, and agreed that he should contribute most of his official time and influence in behalf of the social and legislative problems confronting the medical profession.

At the May meeting of the board the following recommendation of the Executive Committee was approved: Authorization to permit Managing Editor and Manager of Sessions and Exhibits Lester H. Perry to attend the 1935 session of the American Medical Association at Atlantic City during Sunday, Monday, and Tuesday, June 9, 10, 11, for the purpose of studying the plans and technic of installing and managing technical and scientific exhibits.

At this meeting the board enjoyed the very unusual experience of having but one medical defense application reported.

Through the initiative of Trustee and Councilor George C. Yeager, the prospect of the enforcement of regulations by the State Department of Labor and Industry as applied to women employed by physicians as nurses, secretaries, stenographers, technicians, *etc.*, was brought to the attention of our society's membership during May and June. (See page 744, JUNE PENNSYLVANIA MEDICAL JOURNAL.)

Chairman Laverty of the State Advisory Committee reported that the total emergency relief expenditures for the first 12 months under the SERB had averaged \$1.09 per person on relief. He presented with the approval of his committee a resolution from the Cambria County Medical Society requesting action by the State Society looking toward an increase in the amount of emergency relief funds allocated by the SERB for medical relief to at least 3 per cent of the total relief funds, to be used for more adequate medical care of the individuals on emergency relief. The Board of

Trustees authorized the extension by the committee of this request to the SERB, advising each component county medical society to adopt a resolution similar to that of Cambria County. (See August JOURNAL.)

Dr. Laverty also reported his attendance, at the expense of the A. M. A., upon a conference held in Chicago on April 27 by the American Medical Association for the discussion of emergency medical relief service and other county and state medical society plans or forms for the delivery of medical service. Tentative resolutions were prepared and adopted, requiring the following "after a preliminary study by survey":

1. Freedom of choice of physician.
2. Complete control by county medical society.
3. Medical fees for low-income groups to be based on ability to pay rather than minimum fee schedule.
4. Fair determination of the patients' ability to pay.
5. Centralized records and bookkeeping.
6. Complete medical service.
7. Administration—(a) Service charge for operation of service office; (b) financial reserve for (1) emergencies, epidemics; (2) catastrophic cases.
8. Consistent recognition of the standing of medical specialties and resistance against exploitation by corporations of any type.

All such county society plans when discussed are to be submitted to the State Society for confirmation as to their relation to the 10 points of the American Medical Association.

Chairman Palmer of the Public Health Legislation Committee reported regarding current activities of the Pennsylvania legislature, stressing cult and compulsory insurance proposals and the strong opposition from industry throughout the state which has developed in the Senate to the passage of the many proposed amendments to the Workmen's Compensation Law.

The report from Chairman Mayer of the Public Relations Committee referred to endeavors to enlist the support of the directing forces of 2000 Pennsylvania industries toward defeating compulsory health insurance legislation as well as to assemble and distribute information, facts, and opinions regarding sickness insurance arranged in form for the instruction of lay audiences or public school and college debating groups.

Chairman Borzell of the Committee on Medical Economics reported on his attendance as observer at the special session of the House of Delegates of the American Medical Association held in Chicago on February 15. Dr. Borzell further reported on the endeavors to date of his 5 subcommittees to gather throughout the state facts on hospital economics, health department coöperation, nursing care, industrial medical and contract practice, and participation of lay workers in the professional field. He also reported his appearance in an official capacity before 13 organizations, medical, social, and economic in character.

Chairman Borzell sought active support of the councilor of each district in behalf of "more prompt and hearty coöperation" from component societies in response to varying requests made by the Committee on Economics or its subsidiary committees. He expressed the opinion that "the experiences of 1934-35 have shown us the necessity for larger activities and the broader conception of the field of medical economics than hitherto held." His report concluded with an expression of appreciation to the Board of Trustees for its gratifying support of the committee's efforts.

Time and space will not permit going into further detail of the important routine work undertaken by the members of the various committees of the Board of Trustees.

In closing, your chairman wishes to state that of all the various problems discussed at the meetings of the board emergency medical relief has apparently excited the most controversy. In regard to its ultimate solution our profession seems to be divided into 3 classes: (1) Those who believe emergency medical relief as it has been attempted in Pennsylvania represents the proper way of meeting the emergency and, while not entirely satisfied, are hoping that until it fades into county plans for medical care of the unemployable indigent, the existing emergency rules and regulations will be made more flexible; (2) those who believe emergency medical relief is but a forerunner of state medicine, and believe therefore that as before Dec. 1, 1933, the "poor" (of all kinds) desiring the service of the physician of their choice should be treated free of charge by the members of the profession; (3) those who believe that all existing forms of medical relief should be discarded and a panel system instituted, made up of physicians who are willing to do such work on a salary. While the last 2 groups mentioned are in the small minority among physicians, there is grave danger of their hindering the emergency program as it now exists, or destroying our influence upon the development of future programs.

Emergency Medical Relief Service is not mandatory upon the SERB administrations of the 48 states, and may at any time be discontinued at the discretion of the state administration.

Five states at present do not set aside a grant for medical relief; on the other hand, during the year and a half from January, 1934, to June, 1935, the participating physicians (alone) under present free-choice, fee-basis plan of emergency medical relief service in our own state received a total of \$2,688,197.81 (not including sums paid for physicians' services on works division projects, transient camps, etc.).

The board appreciates the fine coöperation of the chairmen of the various committees of the society, especially of the Committees on Public Health Legislation, Public Relations, Medical Economics, and the Medical Advisory Committee. These men have contributed much of their valuable time in appearing before the board, presenting excellent reports for discussion at all our meetings.

Respectfully submitted,
EDGAR S. BUYERS, *Chairman*.

REPORT OF THE EDITOR

To the Board of Trustees:

The JOURNAL terminates Volume 38 with this number. As during the preceding year, there has been a great deal crowded into this volume owing to the demands incident to the increased activities of the many features of organized medicine. We have drawn from many sources and avenues of information material of enlightenment—primarily, for the immediate knowledge of our members and, secondarily, that the members thus instructed will grasp the need for intelligent coöperation. Further, the membership will more appreciatively sense the financial need to meet the increasing demands made upon the State Society, the successful fruition of which constitutes protection to each member.

The JOURNAL, September, 1934, to August, 1935, inclusive, contains 1092 pages, exclusive of advertising. These pages include 121 scientific papers, 166 county society reports, 79 editorials, and 41 book reviews.

It would be most fortunate if our membership at large would become more JOURNAL conscious and read regularly each number, for the following reasons:

Original Articles.—In the numbers from November to September are published the articles read at the annual session of the State Society held the previous October. This arrangement permits the publication in the October number of the limited number of voluntary contributions accepted during the year for this purpose.

Editorials.—Here is published material covering "topics of the day," and other general subjects.

Comments and Excerpts.—These are featured references to subjects of scientific interest.

Medical Economics.—This department gives an epitome of the many prevailing problems.

Medicolegal Notes.—These include matters of value in every-day practice.

Industrial Medicine.—This gives informative data not only as to accidental injuries, but occupational disease and industrial hygiene.

Physical Therapy.—This department endeavors primarily to warn against unsafe apparatus and technic, and to afford information in general.

Hospital Activities.—Here will be found references of value in this large field of endeavor.

Public Health.—This column keeps the physician advised of the more important health problems to aid the slogan, "Every physician a health officer."

The Morbidity in Pennsylvania.—This gives a list of the urban and rural deaths in this state each month from diphtheria, measles, scarlet fever, typhoid fever, and whooping cough.

Tuberculosis Abstracts.—These are a review for physicians prepared monthly by the National Tuberculosis Association.

Officers Department.—This department is prepared by Secretary Walter F. Donaldson of the State Society, and always should be read by every member each month as it contains valuable information anent the State Society.

Changes in Membership of County Societies.—This gives the changes as reported each month.

Contributions to the Medical Benevolence Fund.—This records each month the contributors and the amounts received for this all-important cause. The consistent contributors are the county woman's auxiliaries.

Emergency Child Health Committee, State Emergency Medical Relief.—These departments are established to advise the membership each month of the latest information pertaining to the activities of these 2 committees; also that as permanent records future generations will be accurately informed as to what was accomplished by the physicians of this state and the women's groups during the trying ordeal of the era covered.

County Society Reports.—These constitute one of the most valuable departments of the JOURNAL. These reports, informatively submitted, are of value for immediate reading; constitute a wonderfully compiled monthly released postgraduate course; and, when filed, provide permanent records of inestimable value to the historian.

Councilor District Meetings.—These reports show the activities of the 11 councilor districts, and are very valuable permanent records.

Other Society Meetings.—There are other societies that meet from time to time, in which 2 or more county societies are interested, that afford further information as to medical activities in those communities.

The Woman's Auxiliary.—Due publicity is given each month to the reports received from the state and the county auxiliaries. The transactions of the annual

meeting of the State Woman's Auxiliary also are published. Hence the JOURNAL becomes a permanent file for the activities of this all-important group.

Medical News.—This department includes births, marriages, deaths, and miscellaneous items. Members are cordially requested to send to the JOURNAL office any items of interest properly belonging to this group. If a newspaper clipping is submitted make sure, if the clipping does not give the date of the event and the name of the town or city, to make a notation on a slip and attach to the clipping.

Each year the Scientific Program is published in the August number; and the reports of officers, committees, and commissions, and the members of the House of Delegates, in September, which constitutes the Convention Number.

Advertisements.—The income from advertisements helps to defray the expenses of the publication of the JOURNAL. Only advertisements approved by the Co-operative Medical Advertising Bureau, guided by the Committee on Pharmacy and Chemistry, of the A. M. A., are accepted for publication. A county medical society bulletin should be governed by the same procedure. It is not conducive to the best interest of organized medicine for a county society bulletin to accept for publication an unethical advertisement not acceptable by the State Society JOURNAL. The ethics of a county medical society bulletin in all departments should be no less than that of the State Society JOURNAL.

Many of the advertisers complain that our membership shows little or no interest in their advertisements; that they ignore their request to write for pamphlets, samples, etc. When writing to an advertiser refer to having seen their advertisement in the PENNSYLVANIA MEDICAL JOURNAL. If more of our members acceded to the advertisers' requests, there would be less difficulty in securing and maintaining advertisements.

Manuscript should be received in the JOURNAL office by the tenth day of the month to appear in the issue of the following month.

Although the columns of the JOURNAL are always at the disposal of the officers and committees of the State Society, rarely is advantage taken of this opportunity. It would permit committees to release valuable information from time to time, instead of waiting until the publication of the annual report of the committee in the September number of the JOURNAL. For several years the Committee on Mental Hygiene, through its chairman, J. Allen Jackson of Danville, has contributed each month an editorial appertaining to mental hygiene, some of which have been reproduced by other journals.

Frank H. Krusen, formerly of Philadelphia, for several years one of the associate editors of the JOURNAL, and in charge of the Department of Physical Therapy, tendered his resignation Aug. 6, 1935. Dr. Krusen is now at Rochester, Minn., where he is in charge of a department of physical medicine at the Mayo Clinic. We wish to express appreciation for the services he so efficiently rendered.

The editor is keenly appreciative of the continued support of the trustees and councilors, who so graciously respond to every request, and to the Publication Committee for understanding coöperation, which, after all, makes possible the continuous high type of JOURNAL that is the house organ of our State Society.

The loyalty and fealty of Secretary Donaldson's office continue unabated, a valuable asset.

Mr. Lester H. Perry shows an unusual grasp of his new duties and is most coöperative. Mrs. Mae Yeaton, who served so efficiently for several years, resigned

and was succeeded by Mrs. Hyacinth Willners, formerly of the office personnel, who is rendering most efficient service. These changes in the office in no way have affected the technical aspect of the publication of the JOURNAL. Miss Marian Foberg continues most satisfactory. Respectfully submitted,

FRANK C. HAMMOND, *Editor*.

REPORT OF THE MANAGING EDITOR

To the Board of Trustees:

In accordance with established custom I hereby present the annual report of the activities of the Harrisburg office. To the usual threefold work has been added the library package service.

THE JOURNAL

A comprehensive report of the editorial aspect of the PENNSYLVANIA MEDICAL JOURNAL appears in the report of the editor. Suffice it here to add a brief statement of the business aspect. The income of the JOURNAL for the year amounts to \$7880.62, representing an income of \$223.15 from subscriptions, \$37.80 from the sale of single journals, \$308 from the publication of Tuberculosis Abstracts, and \$7311.67 from advertising. There has been an increase of \$444.09 in advertising revenue this year over last, and the total income exceeds that of any year since 1932.

THE SESSION

Present indications point to a successful convention in Harrisburg this year. Practically all convention activities will be centered in the spacious Farm Show Building, just 2 miles from the business and hotel district.

The scientific exhibits have been carefully selected and will be attractively arranged for the convenience of visiting physicians.

The Technical Exhibit will be of pronounced educational value; it should appeal to all who attend the convention. To date 59 booths have been reserved for the exhibition of approved products.

It appears that the income from exhibit space this year will probably exceed that for the past several years.

THE PROPERTY

The remodeled headquarters building with its increased facilities serves the purposes of the society better than ever before. Beauty and utility are combined in the structure. The building not only catches the eye of every alert passerby, but it is also an inspiring place in which to work.

The rental income from the tenants on the second and third floors continues to be received promptly. The apartments were unoccupied during construction, from July 1, 1934, to Dec. 1, 1934; consequently, the rental income for the year was reduced to \$812.60.

THE LIBRARY

Since Apr. 15, 1935, the package library service has been developing steadily. Many of the methods being used were adopted from the plan of the American Medical Association Library, which is generally conceded to be one of the best package library services in existence. The librarian was sent to visit that library in the beginning of May, and was given much valuable advice.

A subcommittee to the Library Committee has been appointed; it is composed of 8 members who are specialists in their respective fields. They were chosen because of the valuable suggestions they can give con-

cerning reprints which are worth while to request for the library.

In the accumulation of reprints excellent coöperation has been received from both clinics and individual physicians. An attempt is being made to collect as complete a supply as possible of useful reprints published within the past 10 years. The clinical rather than the purely experimental interest is stressed in the selection of reprints. To date the library has received about 5000 reprints, approximately 3500 of which have already been classified.

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I cannot refrain in this, my first annual report, from expressing a word of gratitude for the kindness which has been shown to me by everyone with whom I have had official contact. Particularly do I appreciate the helpfulness of Dr. Hammond, under whose immediate supervision my duties on the JOURNAL are discharged; of Dr. Donaldson, who directs my activities in connection with the annual convention; of Dr. Kech, chairman of the Executive Committee of the Board of Trustees, which oversees the Harrisburg property; and of Dr. Phillips, chairman of the Library Committee and resident trustee. The kindly and coöperative attitude of these officials of the State Society have transformed my orientation into the new work from a perplexing task to an interesting adventure.

The loyalty, coöperation, and efficiency of my co-workers are likewise appreciated. The valuable services of Mrs. Mae Yeaton, who resigned on Nov. 15, 1934, were replaced by those of Mrs. Hyacinth Willners, a former member of the Harrisburg staff, whose thorough knowledge of the work contributed much to minimizing the effect of this change in personnel. The experience and coöperation of Miss Marian Foberg, the only member of the staff whose continuous service extends over the period of one year, were important factors in the discharge of the duties of this office. Miss Mary Elizabeth Taylor, who was employed on Apr. 15, 1935, to develop the package library service, has not only made substantial progress in this activity but in addition has rendered valuable assistance in the routine work of the office during peak periods.

Respectfully submitted,

LESTER H. PERRY, *Managing Editor*.

REPORTS OF INDIVIDUAL COUNCILORS

DR. GEORGE C. YEAGER, PHILADELPHIA, COUNCILOR FOR THE FIRST DISTRICT

To the President and House of Delegates:

The work in the First Councilor District during the past year has progressed very favorably.

The relations between the Philadelphia County Medical Society and The Medical Society of the State of Pennsylvania have been most cordial, and this coöperation has worked for the benefit of both organizations.

There have been very few suits for alleged malpractice brought against members in the First District, and these have been promptly passed on by the local Board of Censors and the Councilor, and at present show no sign of having progressed beyond the initial stage.

On April 10, 1935, for the first time in many years, a councilor district meeting was held in this district. The program was devoted to the subject, "Modern Treatment of Respiratory Infections." The first paper

was presented by Dr. Scott Johnson, of the Cornell Medical Unit, Columbia University, New York, who spoke on "Diagnosis and Treatment of Influenza." This paper was discussed by Dr. Edward L. Bortz of Philadelphia.

The second paper was presented by Dr. Henry T. Chickering of the Rockefeller Institute, who spoke on the "Treatment of Pneumonia," which was discussed by Dr. Leon H. Collins, Jr., of Philadelphia.

The meeting was honored by the presence of Dr. Moses Behrend, president of the State Medical Society, Dr. Thomas St. Clair, vice-president, and Trustees Edgar S. Buyers, Augustus S. Kech, Clarence R. Phillips, E. Roger Samuel, and David W. Thomas.

The meeting was preceded by a reception to the State Society officers at the home of the president of the State Society, and a dinner to the speakers and guests at the County Society grill, at which the Philadelphia County Medical Society was the host.

The meeting was so well attended and the program so attractive that it might well mean the continuation of this feature in the program of each year.

The scientific programs during the entire year were of the highest type and brought out large numbers of the members of the society, both at the regular scientific meetings of the Philadelphia County Medical Society and at the postgraduate seminars, which were of great practical interest.

Several of the subjects deserve special mention, among them being the report of "The Use of Silver Nitrate in the Prevention of Ophthalmia Neonatorum," by Dr. Louis Lehrfeld, and "Consideration of Fractures for the Benefit of the Practicing Physician," by Drs. Eliason, Owen, Moore, and Masland.

The subjects of socialized medicine and periodic health examinations were well handled by Drs. Borzell and Faught respectively.

The twelfth annual Strittmatter Award was presented on April 17 to Dr. Charles W. Burr.

Annual Interns' Night was observed for the second time and brought forth such a goodly number of contestants that it was decided to continue it for another year, and to increase the interest it was announced that 4 prizes of at least \$25 each would be offered. One such prize has been offered by the professor of surgery of one of our medical schools, and we have reason to believe that other schools will follow this example. The contest is open to interns in all of the hospitals in Philadelphia County, and judged by a committee not acquainted with the names of the writers of the papers.

We feel that this movement will stimulate in the younger men an interest in organized medicine and lead to appreciation of the value of membership in such organizations as county and state medical societies.

The seminar program was devoted to practical studies in cardiovascular disease, nutrition, biology of growth and development, dermatology, physical therapy, infections covering pneumonia, minor surgical infections as seen in the office of the general practitioner, kidney and prostate infections as seen by the general practitioner, and infections of the cervix.

One of the outstanding features of the year was the medico-dental seminars, under the joint auspices of the First District Society of the Pennsylvania State Dental Society and the Philadelphia County Medical Society. The general subject, "The Human Face," was considered from every point of view.

Such outstanding figures as William K. Gregory of the American Museum of Natural History, Dr. R. Tait McKenzie of the University of Pennsylvania, an inter-

nationally known artist and sculptor, and others assisted in making this venture a great success.

During the coming year it is hoped to continue the high type of educational work which is being carried on in this district, with the thought ever in mind of meeting our responsibility to help educate the membership in progress in the healing art, so that we and the public which we serve may benefit.

The Medical Advisory Committee to the CERB has served capably in this district under the chairmanship of Dr. Myer Solis-Cohen. They have labored long and faithfully in the interest of the relief patients and the participating physicians. Even considering also the interests of the taxpayer and the limited funds available, the public may rest assured that physicians remain unpaid for a very large proportion of service rendered to families on emergency relief. Considering the magnitude of the problem, with an average of 90,000 families on unemployment relief in Philadelphia County, we are confident that in the first year and a half of emergency medical relief service, this unusual and unexpected problem has been well handled.

From a study of the work in other states we feel that Pennsylvania is far ahead of any other in the care of the sick and destitute, and that we are on the way, in our state, to work out a system both in the care of the poor and the care of the sick which other states will do well to emulate. We are to be congratulated that we have such wise and careful leaders at this critical time.

By close and cordial relations between the county and state advisory committees we can do much to discourage the socialization of the practice of medicine, which seems to be the aim of some misdirected agencies.

DR. EDGAR S. BUYERS, NORRISTOWN, COUNCILOR FOR THE SECOND DISTRICT

To the President and House of Delegates:

The counties composing the Second Councilor District are Berks, Bucks, Chester, Delaware, Montgomery, and Schuylkill, with a total membership of approximately 800.

The Councilor has made an official visit to each society and many nonofficial, finding each society in a most satisfactory condition.

During the past year 2 suits for alleged malpractice have come before the courts; both were nonsuited. One case will be tried in September and 2 are quiescent. Almost all suits entered against members in this district have a basis related to insufficient experience with the diagnostic or therapeutic use of roentgen-ray, violet-ray, infra-red, or diathermy apparatus. The councilor when visiting the various societies has cautioned against these vital sources of litigation.

The Councilor Commission Meeting was held in Norristown, Feb. 20, 1935, with each county society in the district well represented. The program included "The Councilor Commission," by Trustee and Councilor Edgar S. Buyers; "Proposed Changes in the Workmen's Compensation Law," by President Moses Behrend; "One Year of Emergency Medical Relief," by Chairman George L. Laverty, of the State Medical Advisory Committee; "The Relationship of Organized Medicine to Social Insurance," by Chairman Francis F. Borzell, of the Medical Economics Committee. A free discussion of the above papers followed. While the councilor commission meetings are but 2 years old, they are a growing factor for good in the well-regulated councilor district.

The Councilor District Meeting was held at the Norristown Country Club on Sept. 13, 1934, with about 150 present. The meeting was opened with an address of welcome by Dr. Joseph E. Beideman, president of the Montgomery County Medical Society, followed by a 2-minute report from each district censor. A brief history of the Schuylkill County Medical Society was presented by Dr. Merchant C. Householder, of Pottsville. The histories of all the county societies of the Second District will have been completed when the history of Berks County Society is presented at our 1935 Councilor District Meeting. Chairman John O. Bower, of the State Society Committee on Appendicitis Mortality, also spoke, as did Dr. J. W. McConnell, a member of the Committee on Mental Hygiene. Luncheon was served, after which 3 members of the district who had been in practice 50 years were presented with framed testimonials. The program was continued: "Sensitizing the Legislature," by Chairman C. L. Palmer, of the State Society Committee on Public Health Legislation; "Arthritis and Its Treatment," by Dr. Leonard G. Rowntree, director of Philadelphia Institute for Medical Research; and brief addresses by President-elect Behrend, Editor Hammond, and other officers of the State Society. Much interest is manifested in the councilor district meetings as evidenced by the large number always in attendance.

The 1935 Councilor District Meeting will be held at the Reading Country Club, Reading, on September 19.

Emergency medical relief service is at present paramount in discussions of the county societies. While there is some criticism of the plan and the manner of its administration, the opinion exists that medical relief for the *indigent* of the county is to become an outgrowth of emergency relief for the *unemployed*. There is much room for readjustment and improvement in the latter, but it is under the control of the medical profession; patients have free choice of physician and the bills are paid on a fee per visit basis. Surely it might be worse.

The newspaper health column released daily by our State Society is being published regularly in many papers throughout the district, and has increased in popularity with editors as well as laymen.

Medical economics and public relations questions are ever being discussed by the component societies, many of which are having special meetings to discuss these problems in order not to interfere with the regular scientific meetings.

It is the concerted action of the county societies that has aided greatly in postponing for more thorough study the threat of socialized medicine, the membership realizing more than ever the value to the public of medical control over all things medical.

The emergency child health program has been well developed in the district, with the exception of one county. The following briefly represents the number of children examined at this writing, with the percentage of those found suffering from malnutrition: Bucks County, examined 1494, malnutrition 30.5 per cent; Berks County, examined 581, malnutrition 20.1 per cent; Chester County, examined 797, malnutrition 34.1 per cent; Delaware County, examined 722, malnutrition 15.7 per cent; Montgomery County, examined 2779, malnutrition 29.8 per cent. Total children examined in the district 6373.

In the Berks County Society attendance at the scientific meetings has increased substantially, averaging 50 members per meeting. The

society has an associate membership, which is composed of all interns in the local hospitals. The young men show a great desire to attend the meetings of the society as frequently as possible. The associate membership is now in its third year, and as a result the society is beginning to get an earlier and a closer contact with the younger physicians locating in the county.

Radio broadcasting has been carried on bi-weekly over the local station in Reading, and in addition the society has been frequently consulted by the program manager of the station relative to ethical points involved in broadcasting certain kinds of advertising.

The society has suffered a severe loss in the death of Dr. Ira G. Shoemaker, a past president of the state and the county medical societies, and for many years a member of the Board of Trustees of the State Society.

State Society "Your Health" releases have been sent to and published by the various county newspapers.

The work of the Emergency Child Health Committee has been reorganized under the chairmanship of Dr. Robert M. Alexander, with the hope of obtaining a large county and city volunteer committee to aid in carrying on the work to a successful termination.

The problem of medical relief is not entirely satisfactory in Berks County. The society is hoping for an early improvement in the rules and regulations governing emergency medical relief.

The attendance at meetings during the past year of the Bucks County Society has improved, the average being 32. During May the society held a public meeting, with Dr. Arthur C. Christie of Washington, D. C., as the guest speaker. Dr. Christie addressed the audience on the subject, "The Doctor and Social Insurance." An exposition was given of the topic in a manner that could be understood by the laity, and the address received very favorable comment in the local newspapers the following day. We need badly such discussions before lay audiences in all Pennsylvania counties.

The Committees on Public Relations and Public Health Legislation sponsored health day programs in 16 of the 17 high schools of the county. Addresses were made by local physicians at each of these meetings. Two representatives of the Bucks County Society were among the speakers at the annual meeting of the Bucks County Public Health Association.

The Emergency Child Health Committee has continued to function energetically in securing the examination of children on emergency relief and in having the ascertained defects corrected in so far as possible.

The Committee on Diphtheria Immunization has continued an active campaign in coöperation with the Red Cross and other organizations, and approximately 2500 children received the toxoid. The county society has endorsed the maternal survey as suggested by our State Society Maternal Welfare Commission, and a committee is at work securing the information.

The monthly meetings of the Chester County Medical Society have been unusually large and enthusiastic, the largest meeting being held on February 14, with 43 members present. The outstanding programs included papers on mental hygiene, gynecology, obstetrics, heart disease, and pneumonia.

The Public Health Commission of the society has been very active and has secured an appropriation from the county commissioners of \$5000 per year for the

employment of a county health doctor. The selection of a suitable physician for this office will soon be made.

The Medical Economics Committee has been particularly active, holding monthly meetings at the homes of the various members of the committee.

The Chester County Society has increased its membership to 103, which entitles it for the first time to 2 elected delegates to the State Society.

Under the chairmanship of Dr. R. T. Devereux, the emergency child health as well as preschool examinations and the diphtheria toxoid campaigns have been brought prominently before the attention of the public.

The local papers are carrying the health releases from the State Society.

The secretary states that "sufficient medical care has been rendered to the indigent as well as those on unemployment emergency relief. There has not been brought to our attention any deserving case which has not received proper medical care."

The Delaware County Medical Society, which added 16 new members during the year now has a total of 159, and none were lost by death. The society has held 10 meetings—2 social, 3 on medical economics, 1 on emergency medical relief, and 4 scientific. The average attendance has been 42.

The banner scientific meeting of the year was held November 5, when the society was addressed by Dr. Frank H. Lahey of Boston, whose subject was "Hypothyroidism and Its Complications with Other Diseases."

The Montgomery County Medical Society sponsored a health survey of the county with the aid of the other county health agencies. Dr. Walter J. Stein of Ardmore devoted almost a year to this valuable work. The survey was made by the United States Public Health Service and the report is just off the press. It is a valuable book of 80 pages.

During the year the society was addressed by the county district attorney. He discussed painstakingly the physician's responsibility in cases of abortion and also the physician's duty in regard to the examination of drunken automobile drivers. After this meeting a questionnaire was sent to physicians, asking whether they wished to examine drunken drivers or not. Those answering in the affirmative formed a list available for the district attorney's call.

A committee of the society investigated the well baby clinics of the county and made a detailed report to the society. The report showed that there were 20 such clinics in the county, and the committee advised: (1) That each child brought to the clinic should present a certificate from the family physician, which should be renewed every 3 months; (2) that all clinics should be in charge of physicians who are members of the county medical society, preferably the younger members; (3) that physicians be permitted to accept an honorarium for such services; (4) that the society appoint a Medical Advisory Committee for the well baby clinics, one function of the committee being to supervise the selection and appointment of the physicians in charge.

The society now has the largest membership in its history—185.

The Schuylkill County Medical Society has deemed it inadvisable to enter into the activities of the Emergency Child Health Program, at least for the present time.

The educational releases of the State Society are published in 6 county newspapers with gratifying results.

The society is working conscientiously in the matter of medical economics and emergency medical relief.

The medico-socio-economic problems of this society are much more vexing than in any other county in the district; however, they are being handled adequately.

The average attendance at the meetings has exceeded that of previous years.

During the year a woman's auxiliary to the society was organized and is in a flourishing condition.

The outstanding event in this county society has been the completion of the second State Society postgraduate course. The class enrolled 40 members. This is the only county society in the district accepting the postgraduate offer, and the councilor wishes heartily to congratulate its membership on the wisdom displayed in this all-important purpose for the existence of any county society, i. e., "to keep its membership abreast of medical progress."

DR. FREDERICK J. BISHOP, SCRANTON, COUNCILOR FOR THE THIRD DISTRICT

To the President and House of Delegates:

Herewith is submitted for your information and consideration my tenth annual report as councilor for the Third Councilor District (Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Wayne, and Pike counties).

Practically all of the county societies of the district have improved their activities during the year both as to character and frequency of their meetings. All of the societies have carried on with postgraduate instruction, with special meetings devoted to various subjects, and all have responded most admirably to the many requests made by the standing and special committees of the State Society relative to the child health program, emergency child health activities, public health, appendicitis mortality, emergency medical relief, vaccination and immunization campaigns, and maternal mortality. They have also coöperated well in the many urgent requests from the committees on Public Health Legislation, Public Relations, and Medical Economics. Invariably and in a short time these requests were fulfilled. My gratitude to the officers and members of the various committees of the county societies for their faithful endeavors toward coördination with like representatives of the state society is herewith expressed.

Meetings were well attended and programs were of the usual high order, many societies reporting an increase in membership.

May I repeat the recommendation made last year that the county medical societies call upon their own members more frequently and especially urge the younger men in the society to prepare papers or to address the society, thereby beginning early to train them to wider reading and filling the rôle of speakers before their own or some other county society.

Also I repeat the precaution of frequent use of the roentgen ray, or signature by the proper party to our roentgen-ray release blank in fracture cases if roentgen-ray aids to correct diagnosis are refused. This suggestion will bear repetition because it has come to the attention of the writer that it is too often neglected, particularly in certain sections of this councilor district. The omission or neglect of this precaution has been forcibly brought to our attention during the past year,

3 such defense cases having been discovered, which necessarily embarrassed everyone concerned.

Having met the members of this councilor commission at the respective county society meetings and discussed the business that would occupy the time at the councilor commission meeting, receiving at that time comments, criticisms, and suggestions of the members, it was mutually agreed that the commission meeting should be omitted for this year.

There were 3 suits for alleged malpractice instituted during the year in the district; hearings should have been held before this date, but for various reasons all these cases have been held over until the fall term of court. Three cases that were active at the time last year's report was made have been concluded during the year.

The Third Councilor District meeting was held at Skytop Lodge, July 31. The program included only the subject of medical economics.

The meeting began at 10:30 a. m., with the following program: After a welcome to those in attendance, President Behrend, the 4 past-presidents, and 2 trustees who were present were introduced. Dr. J. J. Brennan, member of the Committee on Public Health Legislation, Dr. William H. Mayer, chairman of the Committee on Public Relations, and Dr. Francis F. Borzell, chairman of the Committee on Medical Economics, spoke briefly. For some unavoidable reason Mrs. W. Gilbert Tillman, councilor of the Woman's Auxiliary, Third District, was not present.

The principal speaker of the day on the subject of "Medical Economics" was Dr. Nathan B. Van Etten of New York City, who gave a very excellent and certainly an instructive talk. This address was listened to with extreme interest and, judging from the many favorable comments heard, was enjoyed by everyone. After the address of Dr. Van Etten the meeting adjourned to the dining room where lunch was served and certificates were presented to Dr. George A. Clark of Wilkes-Barre and Dr. Henry M. Neale of Freeland, in celebration of their 50 or more years of medical practice.

There were 212 in attendance at this most successful meeting.

All county societies in the district reported through their district censors, and I am confident that after the inspiring talk by Dr. Van Etten they returned to their respective societies with a stimulating message.

The woman's auxiliaries of the Third District continue their activities in the interest of the various societies. Many of their members were present at our Skytop program, and no doubt they too returned to their various auxiliaries more interested, if possible, in the economic activities of the auxiliary. I would like to take this opportunity to thank the various auxiliaries for their interest and particularly for their contributions to the Medical Benevolence Fund.

DR. E. ROGER SAMUEL, MOUNT CARMEL, COUNCILOR FOR THE FOURTH DISTRICT

To the President and House of Delegates:

The Fourth Councilor District consists of Bradford, Columbia, Montour, Northumberland, Snyder, Sullivan, Susquehanna, and Wyoming counties. The membership has increased throughout the district during the past year.

Postgraduate work, as sponsored by Past-president Donald Guthrie, has been carried on in our district with great success.

In the northern part of the district the postgraduate seminars were carried on by Bradford, Sullivan, Susquehanna, Tioga, and Wyoming counties. Tioga (New York) County physicians (by invitation) participated. Fifty-four members attended seminars at the Robert Packer Hospital in Sayre, where a splendid program was carried out. The successive subjects presented were obstetrics, allergy, eye, ear, nose, and throat diseases, pediatrics, the colon, urology, and minor surgery.

So successful were these clinics that it was possible to have an extra clinic this year from the money obtained at the clinics held last year.

In the southern section of the district splendid seminars were conducted monthly at the George F. Geisinger Hospital, Danville. Scores of physicians from Columbia, Montour, Northumberland, Snyder, and surrounding counties attended each meeting. Clinical material was furnished by the hospital, and a distinguished list of teachers was provided. The Danville State Hospital also contributed to this work.

No councilor district commission meeting was held so far this year, but we expect to have one between now and October first. These meetings have always been very informative and interesting, and we expect a large attendance at our next meeting.

Several of our county societies have participated in the emergency child health movement. Many of them have completed their physical examinations and have begun corrective work on these children.

The Councilor District meeting was held at Forrest Inn, Eagles Mere, on Thursday, July 11, 1935. The program consisted of a brief opening address by the Trustee and Councilor, Dr. E. Roger Samuel, and 2-minute reports by the following district censors: Drs. G. E. Richardson, Bradford County; J. E. Shuman, Columbia County; S. J. Hawley, Montour County; Mark K. Gass, Northumberland County; F. A. Stiles, Susquehanna County; and W. W. Lazarus, Wyoming County.

Dr. Donald Guthrie introduced Dr. Walter F. Donaldson, State Society Secretary, who gave a splendid talk on "County Medical Society Membership—A Privilege and a Social Obligation." Dr. Donaldson reviewed the statistics of membership and showed that there had been an increase in membership in almost every county in the state. He also read from the *Archives of Medicine*, to demonstrate how admirably the members of the county societies of the district of 80 years ago met their responsibilities to private patients and to their respective communities.

"Open Operation for Fractures" was discussed by Dr. Moses Behrend, president of the State Society. Dr. Behrend discussed the conditions which call for open operation and the treatment. He illustrated his talk with slides and motion pictures. The discussion was opened by Dr. Frederick W. Heyer, chief surgeon of the Nanticoke Hospital, who has had a tremendous experience with fractures due to his location in the industrial and anthracite region.

"Clinical Diagnosis and Surgical Treatment of Tumors of the Breast," by Dr. Stuart W. Harrington, of the Mayo Clinic, was a most interesting and instructive paper. Dr. Harrington discussed the clinical symptoms and showed a long list of pictures taken before and after operations to illustrate the different points in his clinical diagnosis. The surgical treatment was referred to but not discussed at any length. Dr. Harrington

ended his talk with a discussion of the classification of breast tumors into 4 classes.

After Dr. Harrington's address luncheon was enjoyed by the physicians and their wives and families.

After luncheon Dr. Stanley P. Reimann, of the Lankenau Hospital, Philadelphia, chairman of the State Society Committee on Scientific Work, gave a most interesting and instructive talk on "The Issues at Stake in the Grading of Tumors." His talk, following closely after Dr. Harrington's, provoked considerable discussion. The discussion was opened by Dr. Henry Hunt, pathologist at Geisinger Memorial Hospital, Danville.

Mr. Hanns Gramm, supervisor of Social Service of the Textile Works of Reading, who served for 15 years under the social security laws of Germany and who has made quite a study of social insurance in Holland, Belgium, France, and America, gave a very instructive talk on "The Social Service Laws." Mr. Gramm's paper should be heard by lay groups all over the state.

"The Problem of Maternal Mortality, and the Purpose and Aim of the Maternal Welfare Commission" was discussed by Dr. James S. Taylor, Altoona, chairman of the Maternal Welfare Commission. Dr. Taylor discussed the question of maternal mortality and pleaded for education and service leading to a reduction of the mortality figures throughout the state. He brought to attention the figures for 1935 to date in the counties of the district. The paper was ably discussed by Dr. Ruth Hartley Weaver of Philadelphia.

"Diagnosis and Surgical Treatment of Acute Perforation of Duodenal Ulcers" was presented by Dr. Donald Guthrie, chief surgeon of the Guthrie Clinic, Sayre. Dr. Robert Sharer, a resident assistant, added greatly to the value of the presentation by showing slides portraying the results attained by Dr. Guthrie.

The annual meeting of the woman's auxiliaries of the Fourth Councilor District was also held on Thursday, July 11, at Forrest Inn, Eagles Mere.

Nearly all of the county societies in the district have had at least one joint meeting with the pharmacists and dentists in relation to public health questions. At these meetings socialized medicine was discussed and movements put on foot for the best interests of the dentists, pharmacists, and physicians.

The Fourth Councilor District took a keen interest in proposed legislative changes.

Part of the program of activity of our county societies has been taken up with discussions of emergency medical relief. It is thought that more information should be spread by the State Society as to why participating physicians' bills have been cut. Most of our members do not realize that these reductions are due to a cut in the appropriations available at Harrisburg and not due to any autocratic ruling by committees in charge. If this were explained to physicians they would take a more charitable view of the administration of emergency relief.

The educational newspaper releases have been received throughout the district with much appreciation.

It is felt that councilor district meetings are not appreciated by the physicians as they should be. While there was a large attendance at the 1935 meeting, the proportion of physicians in attendance was very small compared with the number invited.

There were no suits entered for alleged malpractice during the year.

DR. CLARENCE R. PHILLIPS, HARRISBURG, COUNCILOR FOR THE FIFTH DISTRICT

To the President and House of Delegates:

I beg to report as follows concerning activities in the Fifth Councilor District:

This has been an active year in all the county medical societies in the district. The meetings have been unusually well attended, the programs of especial interest, and well divided in this interest between medical and surgical subjects on the one hand and medicolegal and legislative subjects on the other. While thinking of legislative matters this may be a good place to express recognition of the splendid service rendered the commonwealth by the physician members of the 1935 legislature, notably the chairman of the House Committee on Public Health, Dr. H. M. Hartman of Gettysburg, who is a member of the Adams County Medical Society, in this councilor district.

The councilor commission meeting held in January was well attended, and in addition to a splendid program every member present took part in the discussions. These meetings are very worth while; they give an opportunity for free discussion such as the ordinary meetings do not offer.

A councilor district meeting is not held in the Fifth District. Instead there is a Tri-County meeting with Dauphin, Lancaster, and Lebanon county societies participating, and a West Councilor District meeting with Adams, Cumberland, Franklin, and York county medical societies participating. The Tri-County meeting is really a picnic meeting, usually with no medical program. The West Branch meeting is a combination scientific and social meeting with a program in the morning and golf, *etc.*, in the afternoon. These latter meetings are well attended, and your councilor is still hopeful that all the county societies in the district will combine in 1936 to hold one of the outstanding councilor district meetings of the state. It can be done.

Postgraduate work is being pushed in each of the counties, and we feel that most commendable work along this line is being done in several of the counties, notably Dauphin.

Our information is that 5 of our county societies are doing work along emergency child health lines, with some follow-up work where defects are found.

The newspapers of this district have been generous in giving space to our medical releases, and have been understanding in their attitude along legislative lines.

The woman's auxiliaries to the several county societies of the Fifth District have also completed an active year.

DR. AUGUSTUS S. KECH, ALTOONA, COUNCILOR FOR THE SIXTH DISTRICT

To the President and House of Delegates:

It is very gratifying to report that the component societies of the Sixth Councilor District are in a wholesome condition. They have met regularly for their scheduled meetings, and have had excellent scientific programs contributed by their own members as well as guest speakers. They have attempted to study and work out the economic problems presented to them. The attendance has been good and the enrolled membership well sustained.

The Councilor Commission of the district held 3 meetings during the past year. They continue to be of the round-table type, and are proving beneficial in stimulating interest in the many problems confronting the profession. The subjects discussed were those recommended as important by the standing committees, the House of Delegates, and the Board of Trustees.

Clearfield County Society has completed its post-graduate study course. Blair County is planning for the course during the coming fall months.

The officers and members of the district have taken a keen interest in the legislative program, and the record of the Representatives in the 1935 session of the legislature in voting against legislation inimical to the public good attests to the influence of our members in apprising their legislators of the truth regarding these bills.

It is gratifying to report that the membership is carrying on the work of the emergency medical relief service with very little criticism, even though it proves a hardship in many rural districts. The Emergency Medical Relief Committee of each county medical society in the district deserves special praise for their splendid untiring work during the past year.

The Emergency Child Health Committee is active in every county except one. Blair County stands second in the state in the number of examinations and corrections made.

The annual meeting of the district was held at State College, on May 16, with an attendance of 150. On the scientific program, Dr. Howard T. Karsner of Western Reserve University spoke on "The Pathology of Bright's Disease"; Dr. Charles C. Higgins presented "Recent Advances in Dissolution of Urinary Calculi by Diet." The speakers on the economic program were Drs. F. F. Borzell, chairman of the State Society Committee on Medical Economics; George L. Laverty, chairman of the Medical Advisory Committee; James S. Taylor, chairman of the Maternal Welfare Committee; Moses Behrend, president of the State Medical Society; and Walter F. Donaldson, secretary.

Dr. Ruth Hartley Weaver addressed the Woman's Auxiliary on "Prenatal and Maternal Care." Dr. Seigfried Strauss of Philadelphia spoke on his experience in 20 years of socialized medicine in Germany. Dr. Michael J. Noone of Scranton entertained the dinner guests with his Irish wit and humor.

No suits for alleged malpractice have been instituted in this district during the past year.

There are many members in each county who absent themselves regularly from the stated meetings of their county society, thereby losing the most valuable and informative scientific, social, and economic contacts they possess. Many, too, do not avail themselves of the information published periodically in the editorial and officers' columns of our own JOURNAL and the *Journal of the A. M. A.* for their own enlightenment and to help mold public opinion, which is so necessary in the present crisis. How to remedy this lethargy constantly confronts your officers in their work for the welfare of our society. We all need all the enlightenment available in order that we may intelligently guide public opinion in its choice between social revolution and social evolution.

The officers and the membership of the district have shown a fine spirit of coöperation with their councilor in his visits to the meetings and in response to requests or suggestions transmitted.

DR. DAVID W. THOMAS, LOCK HAVEN, COUNCILOR FOR THE SEVENTH DISTRICT

To the President and House of Delegates:

The Seventh Councilor District, composed of Cameron, Clinton, Elk, Lycoming, Potter, Tioga, and Union counties has been very active during the past year. Two of the societies that formerly had meetings only every 3 months have been meeting monthly during the past year. The programs of the different meetings have been very instructive.

All of the county societies with the exception of 2, have been very active in emergency child health work, and these latter 2 have agreed again to take up the work which they had started but failed to complete.

The physicians as a whole are coöperating in every way possible to take care of the unemployed indigent. There have been numerous complaints concerning the emergency medical relief administration, especially by those physicians who are located in rural places; in one county very largely rural the physicians refused to participate in the emergency medical relief program, but many of the points in question were cleared up at a meeting held recently in Williamsport, which was addressed by Drs. H. A. Miller and G. L. Laverty, of Harrisburg.

The councilor commission meeting of the Seventh Councilor District was held at Lock Haven on Apr. 19, 1935, at which representatives from every county society in the district were present. The meeting was addressed by Chairman C. L. Palmer of the State Society Public Health Legislation Committee, concerning legislative matters of interest to every practitioner. His address was greatly appreciated by all present. Another councilor commission meeting will be held in September before the 1935 State Society meeting.

The various daily and weekly newspapers throughout the district have published the news releases pertaining to health matters sent out by the State Society.

The annual councilor district meeting of the Seventh Councilor District was held at the Williamsport Country Club, Friday, July 12, and was attended by 100 members of the district. An excellent program was presented. The district censor, or some one representing him, of every county society in the district presented a report at this meeting, and these reports showed that the societies were very active, with a slight increase in membership.

DR. GEORGE A. REED, ERIE, COUNCILOR FOR THE EIGHTH DISTRICT

To the President and House of Delegates:

Your Councilor for the Eighth Councilor District, composed of Crawford, Erie, Forest, McKean, Mercer, and Warren counties, begs to report on the activities of this division of the State Society for the year 1935.

The societies in each of the above counties (except Forest which has no society) are active and for the most part alive to the problems of the parent society. Each society reports a good attendance, with regular meetings and excellent programs. In none has the membership decreased, and all report gains.

The Committee on Emergency Child Health so far has not been able to convince the officers of the county medical societies of Erie, Crawford, or Mercer of the importance of the child survey, although Mercer has some members who are willing to help. Warren, Mc-

Kean, and Forest counties have undertaken and partially completed the work.

Each society in the district has an active woman's auxiliary.

The State Society postgraduate seminars have been conducted in Erie and adjoining counties and were a success both as to instruction and attendance.

No malpractice suits have been brought to my knowledge so far, although some were threatened. Early contact with those interested in bringing suit has to date prevented suit being entered.

The Eighth Councilor District meeting was held in conjunction with the Ninth District at the Brookville Country Club, in Jefferson County, on Aug. 1, 1935, with a scientific program in the forenoon. Following luncheon, the business meeting in the afternoon was presided over by the councilors of the 2 districts.

Present at the meeting and addressing the business session were President Moses Behrend, President-elect Alexander H. Colwell, Secretary Walter F. Donaldson, and Chairman C. L. Palmer of the Public Health Legislation Committee.

Certain misunderstandings of the purposes inspiring the action of the 1933 House of Delegates of the State Society when it sanctioned participation in the state-wide emergency medical relief service were, it is believed, elucidated by Secretary Donaldson, undoubtedly resulting in a clearer understanding of the situation which had been complained of by one or two of the discussors present at the meeting.

DR. ALEXANDER H. STEWART, INDIANA, COUNCILOR FOR THE NINTH DISTRICT

To the President and House of Delegates:

The county medical societies comprising the Ninth Councilor District have all been functioning during the year in a very satisfactory way. State Society postgraduate courses were conducted in Jefferson, Butler, and Venango counties, with members from other county societies in the district participating. Reports indicate that these courses have been beneficial and enthusiastically received.

The emergency child health relief work has for the most part been carried on successfully.

The emergency medical relief program has met with opposition in some places and in some counties has created considerable dissatisfaction. I believe this to be due in most cases to a misunderstanding on the part of the physicians and because of the fact that funds available from the federal and state governments vary from month to month. In most instances the county advisory boards are functioning well and endeavor to sponsor the work in an equitable manner. A very few instances of overcharging have been reported and those guilty have been suspended from the participating rolls. It is hoped that offenders will realize the danger of such practice, which unjustly exposes to criticism the work of the vast majority of participating physicians, whose records reveal full cooperation with the ideals of guiding rules and regulations.

A joint Councilor Commission meeting of the Ninth and Tenth Councilor Districts was held at Butler, with a good representation from both districts present. The meeting was addressed by Drs. Donaldson, Mayer, Palmer, Colwell, and Laverty, engendering a general discussion of such subjects as increasing membership, legislative problems, emergency medical relief, emergency child health service, and other pertinent topics.

The general consensus of opinion was that such meetings are of great value and should be repeated.

The annual councilor district meeting was held at Pinecrest Country Club near Brookville, August 1. This was a joint meeting of the Eighth and Ninth Councilor Districts; the attendance was 100. Every county society in the 2 districts was represented. The forenoon session was scientific, and excellent papers on subjects of interest to every general practitioner were read. Dr. Joseph A. Hepp of Pittsburgh spoke on the "Differential Diagnosis of Leukorrhea"; Dr. John W. Shirer of Pittsburgh on "The Present Status of Endocrine Therapy"; Dr. James A. M. Russell of Erie on "Deafness"; and Dr. Hubert L. King, of Lakewood, Ohio, on "Manifestations of Heart Failure in Middle Life with Suggestions as to Treatment." The papers were discussed by several of the physicians present. This session was presided over by Dr. Edward F. Heid, president of the Jefferson County Medical Society. Under the very able management of Dr. Walter Dick, Brookville, chairman of the Committee on Arrangements, an ideal set-up was presented and every detail was attended to. The woman's auxiliary of the club served dinner which was enjoyed and appreciated by all. Several tenor solos were rendered artistically by Mr. Carrier of Oil City, with Mrs. Carrier as accompanist, adding greatly to the entertainment.

The afternoon session was presided over by Trustee and Councilor Alexander H. Stewart of the Ninth Councilor District, and was devoted to discussion of state and county society problems. Speakers participating were Drs. Behrend, Donaldson, Colwell, Palmer, and Summerville. Discussions were entered into freely, and a clearer understanding with a finer appreciation of the breadth of the problems involved undoubtedly resulted.

The reports of the various district censors showed extraordinary activity in the various county societies of the 2 districts, and we feel that the Ninth Councilor District is functioning in a satisfactory manner. Golf privileges were extended to the visiting physicians, many of whom later indulged in the pastime.

Trustee and Councilor George A. Reed of the Eighth Councilor District assisted in conducting the afternoon program, and brought with him quite a number of members from his district. Such joint meetings may, when held in the vacation season, result in larger attendance with better programs and also promote a wider and more intimate acquaintance among members.

The Woman's Auxiliary to The Medical Society of the State of Pennsylvania in the Ninth District has been doing very good work under the leadership of Mrs. W. F. Weitzel, Indiana, councilor for the district. Auxiliaries are organized in Butler, Venango, Clarion, and Indiana counties. The Venango County auxiliary was organized during the year. A councilor meeting was held at Indiana on May 9 and was well attended. Several of the state officers and councilors were present and addressed the meeting.

No cases of alleged malpractice have been reported in this district during the year.

DR. ROBERT L. ANDERSON, PITTSBURGH, COUNCILOR FOR THE TENTH DISTRICT

To the President and House of Delegates:

The Tenth Councilor District is composed of 4 very progressive county medical societies (Allegheny, Beaver, Lawrence, and Westmoreland) actively cooper-

ating with the State Society. These units are always very prompt in their response to requests or suggestions from the district councilor. During the past year each society has been called on many times for support in the interests of public health and hygiene, as well as those involving public health legislation, and their cheerful and willing response gives encouragement and added impetus to the councilor of the district. In the vexatious problem of emergency medical relief, in which many county society members have accepted seeming injustices, there has always prevailed a spirit of loyalty and coöperation with the plans of the State Society and the ideals of its officers.

In all counties a very active Public Health Legislative Conference, as advocated and outlined by Dr. C. L. Palmer, has been established and has been an active factor in aiding the State Society Committee on Public Health Legislation. As an example of the added numerical strength these public health legislative conferences have attained and the potential expansion of the scope of individual influence, may I quote the following paragraph from a letter sent out by the Allegheny County Conference to some 550 candidates for the Legislature in the 1934 primaries:

"The Joint Conference Committee represents in Allegheny County the following groups: 800 dentists, 500 druggists, 1800 nurses, 1500 physicians, 350 members of medical auxiliaries, and 37 hospitals, the latter with a personnel approximating 3000 and influential patrons numbering several hundred."

The following communication from Dr. W. H. Mayer, chairman of the Public Relations Committee of The Medical Society of the State of Pennsylvania, was presented to the counties of the district by the councilor:

"It is the belief of the committee (Public Relations) that we can no longer talk in terms of educating the public. We must now influence public opinion as it is being influenced by the enemies of medical organizations. We use this last term because even though our opponents may be well meaning, their opinions and points of view are destructive to the regular practice of medicine, and should be regarded as inimical."

With this statement your councilor is in total agreement, and it is his opinion, based on many years of public health legislation experience, that the allied professions as represented by these joint health legislative conferences will not be regimented if each member will do what he rather passively hopes will be done for him by others, i. e., take steps to arouse public opinion, each in his own circle of contacts. The very confidence which the individual physician, dentist, nurse, and other members of the conference arouses in his patients and friends will, in the aggregate, prove the greatest defense to this insidious propaganda. In addition to individual effort organized coöperative measures are essential. Such joint public health conferences undoubtedly produce a potential influence sufficient to drive their opponents to cover.

The 1935 Tenth Councilor District meeting was held in Beaver Falls, May 9, under the sponsorship of the Beaver County Medical Society. It was featured by a series of economic and scientific expositions of high quality, demonstrating the good judgment of the Committee on Arrangements, of which Dr. B. C. Painter was chairman. The total registration of physicians in attendance was 222, of whom 192 were from 11 Pennsylvania counties, 25 from the State of Ohio, and the remainder from 3 other states.

The Annual Clinic of the Westmoreland County Medical Society was held at New Kensington on

Thursday, May 23, under the auspices of the staff of the New Kensington Hospital, and was a distinct success. The councilor wishes to thank the officers of Westmoreland County Medical Society and the Clinic Committee for their willing coöperation in postponing the original date for their annual clinic 2 weeks so that there would be no conflict with the Councilor District meeting in Beaver Falls.

The Councilor Commission meeting was held at Butler, June 20. This was a combined meeting of the commissions of the Ninth and Tenth districts, arranged in this manner to conserve the time of Dr. George L. Lavery of Harrisburg, chairman of the State Medical Advisory Committee to the SERB. Dr. Lavery was very indulgent, giving generously of his time to explaining and answering questions concerning the many angles and problems of emergency medical relief.

Dr. Alexander H. Colwell, president-elect, discussed problems of the State Society from the viewpoint of that office, as did also Dr. Walter F. Donaldson from the viewpoint of the secretary of the State Society. Dr. Mayer discussed at length the work of the State Committee on Public Relations, and Dr. Palmer discussed in detail the history of the legislative year and our future problems. These presentations were followed by dinner and a query and answer session.

The councilor commission idea was presented in the Tenth Councilor District report for 1933. In the intervening 2 years this idea has taken form, developed, and been crystallized into a definite working entity. The success of councilor commission meetings in this short period foreshadows the possibilities of even greater usefulness in the future, for they are becoming more valuable each year.

Reports from widely scattered councilor districts throughout the state indicate that councilor commission meetings are accomplishing 2 extremely valuable results: (1) They are increasing the influence of both the State Society and the county societies by welding them closer together as integral working units; (2) they are assisting in the development of local organizational activities by promoting a closer interchange of ideas, policies, and plans between individual county societies.

At these meetings the problems of the county societies are discussed, particularly as they relate to each other and to the problems of the State Society. These discussions are made openly and at length by representatives of the State Society and of the several county societies. There seems to be no better method for conveying to our county organizations the policies of the State Society.

In 2 counties, Allegheny and Westmoreland, emergency child health committees have been very active under the leadership of Drs. Henry T. Price and Louis J. Bailey, respectively. This worth while project, besides being of immeasurable benefit to mothers and children, firmly implants in the minds of certain community and county social leaders the value and need for medical control in community health and disease prevention projects. In Allegheny County 7366 children were examined, of whom 63 per cent were referred to their family physicians for further reference to a dispensary for treatment. Of this number 35 per cent (of the 7366 children) were treated as recorded in the follow-up system of this committee. Eighty-two per cent of the mothers of these 7366 children were interviewed and instructed in nutritional care. These figures are as of Aug. 1, 1935.

In Westmoreland County 3494 children were examined; 1564 were found to need correction, and nutritional instruction was given to 979 mothers. These figures are as of May 1.

State Society educational releases were received and published by 10 newspapers in the district, divided as follows: Four each in Beaver and Westmoreland counties; one each in Allegheny and Lawrence counties.

Dr. George R. Harris, recently elected secretary of the Allegheny County Medical Society, visited with the councilor at least once in each county of the district for the purpose of analyzing and discussing proposed health insurance legislation. His careful analysis of these bills did much to acquaint the physicians of the district with the possible deteriorating effect on the high quality of present sickness service and other features affecting the welfare of the public as well as physicians.

Formal graduate educational courses were offered by the Allegheny and Lawrence County medical societies, the latter under State Society auspices.

The councilor for the Tenth District has been more forcibly impressed during the past year than ever before with the need for and the accomplishments resulting from consistent, assertive, but wise leadership by physicians in all community health problems and in many of the social and economic questions now dismaying the commonwealth.

To the officers and committee chairmen of the several societies of the Tenth District, the councilor expresses his appreciation of their diligent services, willingly rendered, which have added much to the comfort and welfare of the individual members of this district.

REPORTS OF STANDING COMMITTEES

COMMITTEE ON PUBLIC HEALTH LEGISLATION

To the President and House of Delegates:

On Sept. 12, 1934, the Public Health Legislative Conference of Pennsylvania was organized, consisting of 2 members from each of the following state societies: The Medical Society of the State of Pennsylvania, the Homeopathic Medical Society, the Eclectic Medical Society, the Pennsylvania Dental Society, the Pennsylvania Pharmaceutical Society, the Pennsylvania Nurses Association, the Hospital Conference of Pennsylvania, and the Woman's Auxiliary to The Medical Society of the State of Pennsylvania and to the Homeopathic Medical Society. In the work in the legislature throughout the session all of these organizations were of great assistance to each other. There are also similarly organized conferences in 31 of the larger counties of the state.

We believe these organizations should not be permitted to lapse, but should be kept alive and active both during and in the interval between legislative sessions. The support of the House of Delegates in this recommendation should be effective and will be appreciated.

There were about 65 bills introduced in the 1935 House and Senate in which were included public health or medical phases. The detailed report of the final

disposition of these bills, together with reports on hearings and resolutions, is in our final bulletin published in the August issue of the PENNSYLVANIA MEDICAL JOURNAL.

The influence and accomplishments of your Public Health Legislation Committee were very largely due to the "back home" activities of society members in the various counties as developed in response to requests from this committee to the component societies.

On the other hand, the work of the committee was occasionally handicapped somewhat by interference—due to independent, ill-advised and misdirected activities on the part of some individual members or groups of members—which at times proved a boomerang, the effects of which were difficult to counteract. No one doubts the sincerity underlying such activities, but for our successors we recommend that:

After the committee appointments have been approved by the Board of Trustees, the membership throughout the state should consult said committee or be guided by the committee's transmitted information, advice, requests, and decisions as to activity—or the wisdom of inactivity—before and during the legislative session.

We desire to acknowledge the assistance received through prompt and informative service relative to all proposed Pennsylvania health legislation from the Bureau of Legal Medicine and Legislation of the American Medical Association and to express gratitude for invaluable advice from the Director of the Bureau, Dr. Wm. C. Woodward.

Respectfully submitted,

C. L. PALMER, *Chairman*,
MOSES BEHREND,
JOHN J. BRENNAN,
WALTER F. DONALDSON,
ARTHUR P. KEEGAN,
HENRY W. SALUS,
JAMES D. STARK.

COMMITTEE ON PUBLIC RELATIONS

To the President and House of Delegates:

The material necessary to explain the work of your Public Relations Committee is so voluminous that a complete report is not feasible because of the limitations of space.

The Public Relations Committee wishes to report, first, in accordance with the expressed desires of a conjoint conference between the Committees on Public Health Legislation, Medical Economics, and Public Relations, held in September, 1934, which defined certain policies subsequently approved by our House of Delegates at Wilkes-Barre, that the committee has proceeded.

It has presented to the public certain phases of pending legislation under direction of and in conjunction with the Public Health Legislation Committee to aid benevolent public health legislation and to obstruct predatory attacks upon public health service. The results of these enterprises have been far and away more successful than we could have hoped for in previous years. It is the avowed policy of the committee.

We cannot approach the press of our state on a basis of the sociologic aspect of medicine alone without seriously prejudicing our position. This opinion is the result of practical experience with the press and individual contacts throughout the year. Public health education, improved medical service, and the preservation of high

standards in medical education should never be divorced from economic or kindred considerations in our public position.

Our Subcommittee on Periodic Health Examinations has been active and will have a graphic exhibit at the Harrisburg session.

Public Health Day was celebrated throughout the state last year with a splendid public relations reaction. It is the distinct feeling of the committee that those counties which did not completely and enthusiastically support this activity lost considerably in their public relations position. In testimony it is in support of this contention that we request of the Department of Health of the State of Pennsylvania that it request of the State Society Committee this effort this year, inasmuch as lay organizations have urged upon the Department of Health an active campaign in certain localities of our state.

Because of our record of coöperative service and leadership this matter has been referred to your State Society. The leadership has again been extended to the local county societies with every assistance of The Medical Society of the State of Pennsylvania. This is a challenge to the position of the local county society to retain leadership in any circumstances in its community and county. There is no other answer to this but complete coöperation.

During the year it has been necessary to indulge in publicity concerning socialized medicine, in which we have relevantly and temperately related this matter from a public health and medical service standpoint and have reviewed with consummate advice the economic side of the question. The material dispersed, of interest to individuals and corporations, is appended to a general report in the hands of the Reference Committee.

We seek on the part of all interested members an appearance before this committee, where this voluminous correspondence may be reviewed and constructively criticized. We realize the difficulties surrounding accurate judgment in situations of such general importance. We are not extending any apology for our efforts but hope to present in every detail the aggregate opinion of our membership. The future of medicine as it has been practiced and as it has succeeded, providing constantly improving medical service, is in the balance.

We are not deluded by the delay in the attacking forces. We ask for the best that everyone has to offer. This is an opportunity which cannot be neglected. Please remember, then, that small groups of men, all of them well intentioned, are anxious to represent the best the medical profession has to offer. It is the duty of every delegate to listen and to express himself.

Respectfully submitted,

WILLIAM H. MAYER, *Chairman*,
NORBERT D. GANNON, *Secretary*,
ROBERT M. ALEXANDER,
GEORGE H. CROSS,
CHARLES FALKOWSKY, JR.,
CHARLES F. NASSAU,
FRANCIS F. BORZELL,
JOHN P. HARLEY,
WILMER KRUSEN,
MOSES BEHREND, *ex-officio*,
ALEXANDER H. COLWELL, *ex-officio*,
EDGAR S. BUYERS, *ex-officio*,
ROBERT L. ANDERSON, *ex-officio*,
WALTER F. DONALDSON, *ex-officio*.

COMMITTEE ON MEDICAL BENEVOLENCE

To the President and House of Delegates:

The committee continues active in its work, and requests for assistance from our society's Benevolence Fund are steadily increasing year after year. The 1932 expenditures by the committee (\$4870) have been approximately doubled this year.

A total of 33 persons received benefits from the fund during the past 12 months, including 10 new approved applicants and 23 beneficiaries continued from the previous year. One beneficiary died during the year and 5 were discontinued, leaving 27 beneficiaries of the fund on Sept. 1, 1935.

The Benevolence Committee express herewith a wealth of gratitude to the various woman's auxiliaries for their increasingly generous contributions to the fund, without which it would have been necessary to scale down very materially the average periodic allotments to all beneficiaries.

One of the most recent beneficiaries is the widow of a member who was in good standing at the time of his death, which occurred many years ago during his first year of membership in our society.

The report of the treasurer of the committee follows:

BALANCE ON HAND AUG. 31, 1934	\$2675.58
RECEIPTS	
From Treasurer Lowman—contributions from woman's auxiliaries: Feb. 7, April 24, June 5, Aug. 3, Aug. 17, 1935	\$3005.00
From Treasurer Lowman—interest on investments: Oct. 22, 1934	748.80
Jan. 30, 1935	1156.87
April 2, 1935	858.11
April 24, June 5, Aug. 3, Aug. 17, 1935	1576.85
	\$7345.63
	\$10,021.21
DISBURSEMENTS	
September, 1934	\$415.00
October, 1934	392.50
November, 1934	1567.50
December, 1934	350.00
January, 1935	385.00
February, 1935	1465.00
March 1935	325.00
April, 1935	370.00
May, 1935	1485.00
June, 1935	325.00
July, 1935	362.50
August, 1935	1595.00
Federal tax on checks	1.20
	\$9038.70
BALANCE ON HAND AUG. 31, 1935	\$982.51

Respectfully submitted,

HOWARD C. FRONTZ, *Chairman*,
WALTER F. DONALDSON, *Secretary*,
EDWARD B. HECKEL, *Treasurer*,
CLARENCE R. PHILLIPS.

COMMITTEE ON NECROLOGY

To the President and House of Delegates:

Your Committee on Necrology announces with deep sorrow that during the past year 145 members of our society have been taken by death. This represents a great loss to many families and communities. These physicians, wherever their lots were cast, and whether old or young in experience and years, had carried on with honor and repute the best traditions of our profession.

Their names have been duly recorded in the PENNSYLVANIA MEDICAL JOURNAL, month by month, and in

the annual Roster of our society and therefore will not be repeated in this report.

To venerate their memory is our privilege and our duty, and we may say with the wise man of old, "These men were honorable in their generations and the glory of their times."

Your committee desires to thank the secretaries of the component societies who have promptly sent in the names of their deceased members to the office of the secretary of the State Society and urge upon all of them continuance of this important duty.

Respectfully submitted,
 ROBERT G. BARCKLEY, *Chairman*,
 WALTER F. DONALDSON,
 SPENCER M. FREE,
 EDWARD R. GARDNER,
 CHARLES F. LONG.

COMMITTEE ON SOCIETY COMITY AND POLICY

To the President and House of Delegates:

The committee has held no meetings during the year and but one question has been brought to its attention, namely, that the 1935 House of Delegates of the American Medical Association has finally amended Section 1 of Chapter XI of the By-laws to read as follows:

"Membership in this association shall continue only so long as the individual is a member of a component society of the constituent association from which he holds membership."

Inasmuch as some state associations have made it a practice to accept as members those who are not resident, active members of one of their own component county societies, the House, in order to equalize the privileges and duties of all members of the A. M. A. and to attain a fair distribution of delegates in its House of Delegates based on the actual number of members of component societies forming each state medical association, adopted the above amendment.

This action is in keeping with the model by-laws for component societies of our own State Society, which provides that "an active member of a county society shall not be an active member of any other county medical society."

The attention of our House of Delegates is also respectfully called to the absolute need for enforcing the provision of Section 6, of Chapter 8 of our own by-laws to the effect that any physician living near a county line may hold membership in the county most convenient for him to attend only on permission of the councilor of his district. (Attention is called to a proposed amendment to this section.)

All members of our State Society are urged by this committee to follow carefully the action of the House of Delegates and the various bureaus and councils of the American Medical Association as they are recorded in the weekly *Journal* and the *Bulletin* of the A. M. A. The latter is published monthly except in July, August, and September, and may be subscribed for upon payment of 50c annually by members of the association who are not Fellows automatically receiving both the *A. M. A. Journal* and the *Bulletin*.

Respectfully submitted,
 J. NORMAN HENRY, *Chairman*,
 THEODORE B. APPEL,
 ELMER L. MEYERS,
 WILLIAM T. SHARPLESS,
 J. K. WILLIAMS WOOD.

COMMITTEE TO CONFER WITH GOVERNMENTAL AND PRIVATE HEALTH AGENCIES

To the President and House of Delegates:

The report of this committee covers a year that has witnessed increased activity in interprofessional relations, brought about no doubt by economic crises which have brought various healing agencies into closer contact, looking forward to a solidarity which has not heretofore existed.

Never before have the members of the healing arts—and the agencies which they represent—sensed as great a need for coöperative effort. Problems arising from unemployment relief, indigency and its long train of sequelae—malnutrition, housing problems, sanitation—have loomed large in the last few years, and medical men in particular have become more conscious of the need of united effort.

Contact was made with the following bodies, as indicated by the title of this committee, to secure their experience as to past performance in coöperation, their reaction to results, and their suggestions as to enlargement of scope, change, or continuance of certain endeavors: The Pennsylvania State Nurses Association, the American Red Cross, the State Department of Health, the State Dental Association, and the component county medical societies.

Their replies have been prompt and illuminating, and analyses of the several replies will be submitted. The answer of the county societies to a brief questionnaire probably furnishes the best cross section of professional reaction to the interprofessional situation. At this writing some 42 replies have been received.

Twenty-three counties had joint meetings participated in by dental, pediatric, and pharmaceutical groups. There were 14 which included nursing groups or Red Cross affiliations (some county society members serving on the local chapter). All of these, but one, found them helpful in promoting professional and social relations, sensitizing the community to health consciousness, coöperation with local health agencies and lay groups in projects for immunization, pediatric and nutritional work, and sanitation (pollution of streams, etc.).

It was noted that the joint meetings of county emergency relief advisory committees have done much to integrate the members of the healing arts bodies, and to furnish opportunity to discuss their economic and ethical problems. Only 7 counties had suggestions for enlargement of the scope of our committee. These had to do with legislative problems and other items which do not come within our jurisdiction. It was also noted that the publication of the National Formulary with suggestions to promote simpler medication has been helpful throughout the state.

In the larger cities the usual joint programs have been held with dental, pharmaceutical, and allied groups. This has been customary for years. Philadelphia reports an ambitious program, just concluded, of post-graduate seminars on the "Human Face" by participating dentists and oral surgeons, participation in the winter meeting of the Philadelphia Association of Retail Druggists, and a display in the county society building of ethical pharmaceutical preparations.

It is surprising that in the more densely populated centers there is less evidence of coöperation among the professional groups than one would expect, and that, to the contrary, smaller communities are enthusiastic over joint meetings. Of course in the metropolitan

areas joint meetings, seminars, *etc.*, have been held always, yet there is little evidence of inclusion in these programs of related nursing problems.

As to the American Red Cross, it has 68 chapters in the state conducting independent or joint public health nursing services.

"Because of the intimate relations between the medical profession and public health nursing work, it is recommended by the national organizations that chapters request the medical society, or a group of local physicians interested in public health, to select one from their number to act as their representative on the chapter executive committee, or the committee on nursing activities. Many chapters have a medical advisory committee to whom all matters of medical and public health policy can be referred. Physicians can help the committee in the selection of the nurse, in determining the character and quality of the service, in formulating policies, and in helping to maintain cordial relations between the nursing service and the medical profession."

Quoting the reply of Miss Netta Ford, R.N., president of the Pennsylvania State Nurses Association:

"We have a real conviction that nursing care should be available for all citizens on an equal basis throughout the state, and we believe this can only be brought about with a joint governmental and private agency program."

The nursing group has had representation on all of the committees called by Dr. Harold A. Miller of the SERB; also on the Public Health Legislative Conference, of which Dr. C. L. Palmer was chairman.

Some counties, particularly Philadelphia County, have had representatives of the nursing group on the advisory committee to the relief board, which has met regularly. This, however, is not a general practice throughout the counties, but we believe it would be advantageous for all the healing arts groups to have this advisory committee relation.

A careful survey of the nursing situation in our state conducted by a committee of the Pennsylvania State Nurses Association has evaluated nursing care, and the following quotation from the report of Miss Ruth W. Hubbard, R.N., chairman of that committee, is indeed informative:

"The National Organization for Public Health Nursing in its 1934 survey reports that the minimum essential in establishing adequate public health nursing service for individuals is a ratio of one nurse to every 2500 persons in the population. We have approximately 10,000,000 people in Pennsylvania, and 4000 public health nurses would be required to meet the needs of this population adequately. There are now available for bedside nursing care throughout the state approximately 500 public health nurses. The relief population in Pennsylvania, as of May 25, numbered 1,600,000. By the most conservative of estimates this would call for a nursing group of 500 to render complete public health nursing service.

"It is obvious that the number available is inadequate. Included therein are the insurance company nurses, who give service to their policyholders only, the American Red Cross, and independent visiting nurse associations, all organizations of which are located chiefly in urban centers. From the outset it has been evident that the problem of providing bedside nursing service to the rural client has presented the most serious difficulty encountered. This has been due to the fact that the population is scattered; means of transportation have not been provided in the program; the clients were in territories uncovered by organized

nursing programs; and the provision for payment upon a limited visit basis has made acceptance of calls a precarious undertaking for the individual nurse. It has been evident, too, that in these rural areas the client and his physician are frequently unacquainted with the type of service provided through a visiting nurse service. Therefore, requests for nursing care in these areas have been few."

In summing up the work of our committee for the year, there is evidence of a closer coöperation between the healing arts groups, stimulated no doubt by adverse economic conditions, and sustained by the great need to collaborate on medical relief problems. There is a prevailing sentiment, indicated by replies from component societies, that representative members of healing arts groups should be invited to participate in county medical society programs, and even at meetings of the State Society. There is need, too, in each county of a standard "set-up" of medical, dental, pharmaceutical, nursing, and public health groups, not only for unemployment and child health emergency relief work or for health legislative activities, but for the smoother handling of other community health problems.

All county societies should keep in close contact with local health boards, and with them develop a personnel for routine sickness-prevention methods or emergency sanitary or therapeutic measures. Such contacts are welcomed by health officers, and, in such instances as inoculation and immunization, may return profit to the individual participating physician.

It is further recommended that each component society add to its roster of committees one to be named the Committee to Confer with Governmental and Private Health Agencies, this committee to be comparable to the state committee and to function within its county limits along the same lines as does the same committee of the parent organization.

It is recommended too that a member or members of this state committee be included when possible on the program of the councilor district commission meetings in order that problems of healing arts groups may be considered and acted upon there.

As this report goes to press there looms large on the horizon the proposed federal social security legislation. It involves the centralization of public health, state preventive and corrective health programs under the influence of federal authorities, which will include development of divisions of nursing service in state health departments, suggesting strongly the need for medical guidance in this proposed extension. The Bureau of Health and Public Instruction of the American Medical Association, anticipating such legislation, met with the United States Public Health Service and the Children's Bureau of the United States Department of Labor, and discussed the development of plans having to do with maternal and infant welfare and the care of crippled children, to be administered by the Children's Bureau, also the general development of state and local public health work to be administered by the U. S. Public Health Service.

It is incumbent on the committee and the responsible officers of the state and county societies to confer immediately with state and local health authorities looking toward the establishment of a personnel to meet the conditions which may arise from this new act. If we are to rescue ourselves from the domination of sociologists or medico-political meddlers, we must enter this program promptly. Let each county acquaint itself with the provisions of the proposed legislation, confer with its local health authorities, muster its medical,

dental, and nursing forces, and prepare to coöperate in influencing the federal-state program which, while it is to be under the State Department of Health, is also required by the new federal law to coöperate with an advisory board including representatives from state groups interested in the health of children. This committee hopes to join with other representatives of our society during the 1935 session in Harrisburg prior to conference with the State Secretary of Health.

Section 10 of Chapter VI of our State Society By-laws describes the function of our committee as follows: "To strive to prevent and adjust misunderstandings between members of this society and public health and welfare agencies throughout the state, and to coördinate all such endeavors, working to the common end—the betterment of the public health; to confer with the various private and governmental health agencies with the object of formulating a working, amicable program whereby the services rendered by the medical profession to all such agencies shall be under the jurisdiction, or at least have the sanction, of the state and local component medical societies."

At the time of the creation by the House of Delegates of this committee, the following additional resolution was also adopted: "That the House of Delegates advise each component medical society to adopt a set of resolutions outlining the scope of the free medical and surgical services their members may contribute to the various private and governmental health agencies, and requiring all such agencies expecting to furnish free medical and surgical service to submit their program, both as to the method of providing such service and the personnel of their medical staff, to the respective county medical society for approval."

Respectfully submitted,

W. BURRILL ODENATT, *Chairman*,
PAUL H. WILSON,
CURTIS C. MECHLING,
FRANK G. HARTMAN,
MAURICE J. KARPELES.

REPORTS OF SPECIAL COMMITTEES

COMMITTEE ON MENTAL HYGIENE

(Subsidiary to Committee on Public Health Legislation)

To the President and House of Delegates:

The Mental Hygiene Committee, working in conjunction with the county medical societies, the Public Charities Association, the Bureau of Mental Health, mental hospitals, state schools, the editor of the JOURNAL, and the officers of the State Society, have concentrated during the past year on the following program. The results of the year's work are in keeping with those of previous years, to wit: Slowly but surely the importance of mental hygiene is being recognized by the county societies and their membership.

PROGRAM OF THE MENTAL HYGIENE COMMITTEE, 1934-1935

1. Support constructive legislation of the Bureau of Mental Health and the Public Charities Association dealing with mental health issues.
2. Request the county medical societies to set aside one program for mental health subjects during the year. The superintendents of mental hospitals, schools, and institutions have assured the committee that they will be glad to coöperate with the county societies either in

contributing to the program or holding a meeting at their institution.

3. Programs for this meeting should stress the physician's rôle in preventive mental medicine as it relates to the child's mental and physical needs in health, disease, and convalescence from disease.

4. Request the mental hygiene committees of the county societies to contribute to their society's public relations program.

5. Request our State Society Scientific Program Committee to give us one paper dealing with mental health at the general sessions at Harrisburg.

6. The editor of the JOURNAL reassures us of his full coöperation in the matter of editorial space.

Respectfully submitted,

J. ALLEN JACKSON, *Chairman*,
CHARLES H. HENNINGER,
JAMES W. MCCONNELL,
CLARENCE A. PATTEN.

COMMISSION ON CANCER

(Subsidiary to the Committee on Public Relations)

To the President and House of Delegates:

The following is the report of the Commission on Cancer of The Medical Society of the State of Pennsylvania:

It has been the aim of the commission to carry out the general line of action as previously originated by the late Dr. Jonathan M. Wainwright.

Early during the year, The Medical Society of the State of Pennsylvania distributed to all practitioners of medicine legally registered in Pennsylvania, a pamphlet entitled "The Early Signs and Symptoms of Cancer." This naturally included practitioners who are not and could not be members of our society, but since our aim is to reduce the number of cancer deaths and to educate the public as well as practitioners to the advantages of the early diagnosis and thorough treatment of cancer, it seemed worth while also to make an effort to reach all those who are legally entitled to examine and treat patients.

The regular formal organization meeting of the commission was held on Dec. 11, 1934, in Harrisburg. The work for the year was planned in detail.

The commission decided to continue with the request that each of the county medical societies hold at least one cancer meeting during the year. We believe that this has been carried out.

It was also agreed to hold 2 regional meetings. The first was held in Meadville on May 14, arranged by Dr. Harry C. Winslow in conjunction with the officers of the Crawford County Medical Society. The following subjects were presented: "Treatment of Bone Tumors," "Diagnosis and Treatment of Intra-oral Cancer," and "Diagnosis and Treatment of Breast Lesions," by Drs. Ralph Herendeen, Hayes E. Martin, and Frank E. Adair, respectively, of New York City; and "Diagnosis and Treatment of Cancer of the Bladder by Means of the Roentgen Rays," by Dr. George E. Pfahler.

There was in attendance and registered during the day, 100 doctors.

The evening meeting, to which the general public was admitted, was addressed by Dr. Donald Guthrie, of Sayre, on "What the Public Should Know About Cancer." There was an audience of approximately 1250 lay people.

The second regional meeting, held in Bethlehem on May 24, was also very successfully arranged by Dr.

William Estes, Jr., in conjunction with the officers of the Northampton County Medical Society. The following subjects were presented and formally discussed: "Chemical Differentiation of Tumor Cells—Its Meaning in the Concept of Neoplasm—Its Diagnostic and Therapeutic Use," presented by Dr. Stanley P. Reimann and discussed by Drs. Henry A. Rothrock and Frederick O. Zillessen; "Cancer of the Mouth," presented by Dr. Robert H. Ivy and discussed by Drs. George E. Pfahler, Byron Jackson, and Roger P. Batchelor; "Cancer of the Bladder," presented by Dr. George E. Pfahler and discussed by Drs. William H. Mackinney and Ehner Hess; "Cancer of the Stomach," presented by Dr. Frank Lahey of Boston, Mass., and discussed by Drs. George P. Müller, Donald Guthrie, and Harold L. Foss; "Cancer of the Breast," presented by Dr. Frank E. Adair of New York City and discussed by Drs. Moses Behrend, Edward J. Klopp, and Samuel J. Waterworth.

There were in attendance and registered during the day, 148 physicians.

The evening meeting, to which the general public was admitted, was addressed by Drs. Donald Guthrie and George E. Pfahler. There were approximately 700 in the audience.

The annual meeting of the Pennsylvania Association of Tumor Clinics was held Nov. 22, 1934, at theankenau Hospital in Philadelphia, under the general direction of Dr. Stanley P. Reimann. A clinical program was held during the entire day. The next annual meeting of the Pennsylvania Association of Tumor Clinics is to be held in Harrisburg in November, 1935.

The fourth annual Prize Essay Contest for Nurses of Pennsylvania was conducted by the commission, the papers being examined and reported upon by the State Board of Examiners for Registration of Nurses. The winner of this contest was Julia Kemp Hrdina, R. N., Ph.B., of Jameson Memorial Hospital, New Castle, with honorable mention to Miss Louise Tritchler, of Allentown, and Genevieve Burton, R. N., of Chestnut Hill. It has also been decided by the commission to continue this contest next year. We believe that this arouses the interest of the nurses. Elizabeth F. Miller, R. N., secretary of the Board of Examiners for Registration of Nurses, has agreed to announce this contest in the *Nurses' Journal*, so that it will be well publicized for next year. This report will also serve as an announcement to physicians in general, who in turn can bring it to the attention of nurses and the hospital nurse management.

During the year the commission has developed a film for cancer control, to be demonstrated to lay audiences wherever the officers of the county medical societies can arrange for such demonstration. The projector, the screen, and the film may be obtained from the librarian at the State Society office in Harrisburg, Pa. There will be a flat charge of \$2.50 to county medical societies requesting and using the film, to be applied to shipping charges.

In addition to the demonstration of this film to lay audiences, clubs, etc., it may be worth while to arrange for demonstrations at congested points in towns or cities by having the display in show windows where people may get these messages. The film projector is automatic. When the film is shown to lay audiences it is advised that some member of the county medical society be present to answer any question regarding the subject of cancer. The chairman of the commission has prepared a list of the questions commonly asked by laymen

in audiences, together with the answers that might be given.

Respectfully submitted,

GEORGE E. PFAHLER, *Chairman*,
WALTER M. BORTZ,
WILLIAM L. ESTES, JR.,
GEORGE W. GRIER,
GEORGE W. HAWK,
WILLIAM H. HOWELL,
STANLEY P. REIMANN,
SAMUEL J. WATERWORTH.

COMMITTEE ON ARCHIVES

To the President and House of Delegates:

During the past year valuable contributions to the future medical history of Pennsylvania have been presented at councilor district meetings as follows: "A Brief History of the Blair County Medical Society," by Dr. Lewis Pellman Glover, of Altoona; "A History of Medicine in Beaver County," by Dr. Leslie L. Hunter, of Midland; and "A Brief History of the Schuylkill County Medical Society," by Dr. Merchant C. Householder, of Pottsville. It is to be regretted that none of these reports have been handed over to our committee.

Including the above, such histories have been prepared during recent years of Philadelphia County (of the First Councilor District); of Bucks, Chester, Delaware, Montgomery, and Schuylkill counties (Second Councilor District); of Lehigh County (Third Councilor District); of Franklin and Lancaster counties (Fifth Councilor District); of Blair, Juniata, and Huntingdon counties (Sixth Councilor District); of Lycoming County (Seventh Councilor District); of Beaver County (Tenth Councilor District); and of Cambria, Fayette, and Washington counties (Eleventh Councilor District). In most instances, these histories have all been read as part of the programs of our annual councilor district meetings.

The committee wishes to commend especially the trustee and councilor for each of the above-mentioned councilor districts, and to urge not only that they do not cease their stimulating influence until such histories have been prepared of all the county medical societies in their respective districts, but that other councilors take immediate steps to initiate and complete this important work in their districts.

Since the employment of a librarian by our society, we have had the benefit of her services in a complete review of the archives in the fireproof and waterproof vault in our society's building in Harrisburg, as follows:

Bound volumes of Transactions of The Medical Society of the State of Pennsylvania, 1854-1896, inclusive.

Bound volumes of PENNSYLVANIA MEDICAL JOURNAL, 1897-1934, inclusive.

Duplicate copies (paper binding, to 1876) of Transactions of The Medical Society of the State of Pennsylvania, 1855; 1865-1869, inclusive; 1872; 1873; 1874 (2 copies); 1875 (3 copies); 1876 (3 copies, 2 paper, 1 leather); 1877 (2 copies, paper); 1878 (1 copy, leather); 1879 (1 copy, paper); 1880 (1 copy, paper); the following bound volumes: 1881 (3 copies); 1882 (3 copies); 1883 (5 copies); 1884; 1885 (5 copies); 1886 (6 copies); 1887 (4 copies); 1888 (3 copies); 1889-90 (6 copies); 1891 (7 copies); 1892 (5 copies); 1893 (6 copies); 1894 (5 copies); 1895 (8 copies); 1896 (8 copies).

PENNSYLVANIA MEDICAL JOURNAL, 1898-1899; 1900-1901; 1904; 1904-1905-1910, inclusive.

Volumes concerning Pennsylvania county medical societies.

Official Transactions of The Medical Society of the State of Pennsylvania (paper covered): 1922 (2 copies); 1923 (3 copies); 1924 (3 copies); 1925 (3 copies); 1926 (3 copies); 1927 (3 copies); 1928 (2 copies); 1929 (3 copies); 1930 (3 copies); 1931 (3 copies); 1932 (2 copies); 1933 (14 copies); 1934 (1 copy).

Respectfully submitted,

WALTER F. DONALDSON, *Chairman*,

JOHN M. FISHER,

J. NEWTON HUNSBERGER.

COMMITTEE ON TELEPHONE DIRECTORY CLASSIFICATIONS

To the President and House of Delegates:

The Committee on Telephone Directory Classifications has functioned quietly, steadily, and successfully during the past year. Correction of irregular listings, removal of names of illegal practitioners from the classified sections of the Bell Telephone Directory, and other effective means have served to delete a large number of names and to keep the published lists of "Physicians and Surgeons, M.D." well cleared of obnoxious and illegal claimants.

Your committee has always been ready to receive and act upon information supplied to us.

Respectfully submitted,

ARTHUR C. MORGAN, *Chairman*,

HARRY W. ALBERTSON,

ARTHUR B. FLEMING.

COMMITTEE ON DEFENSE OF MEDICAL RESEARCH

(Subsidiary to Committee on Public Health Legislation)

To the President and House of Delegates:

The committee is happy to state that it has had no need for any activities during the past year.

Respectfully submitted,

EDWARD B. KRUMBHAAR, *Chairman*,

SAMUEL R. HAYTHORN.

COMMITTEE ON WORKMEN'S COMPENSATION LAW

To the President and House of Delegates:

The work of your committee during the past year was directed toward securing the passage by the legislature of the changes recommended in our report of last October. All of the features which The Medical Society of the State of Pennsylvania advocated were incorporated in the so-called "administration amendments," which were supported by the entire administration, the Democratic majority in the House, and the Democratic minority in the Senate. The House, after conducting 2 public hearings, at which the opponents put forth their best efforts to defeat it, passed the bill by a large majority. The Senate held one hearing on the bill. An attempt to have the Senate Committee on Labor and Industry discharged from further consideration of the bill was defeated. The Senate later passed a bill of its own, which provided for extension of the period of medical treatment of compensation cases from

30 to 60 days, and for increased payment of doctors' bills from \$100 to \$200. The other provisions of the Senate bill were so far removed from those of the House bill that the latter body did not concur.

In retrospect it now appears that approximately 15 amendments to the act which were independently introduced, many of which incorporated our amendments, were defeated.

The insurance companies, with but one exception, continued to give us their complete coöperation.

Thus the end of the recent session of the legislature found the matter of Workmen's Compensation exactly where it was a year ago. This was a great disappointment to everyone concerned.

We recommend to our State Society representatives who are finally responsible for our legislative policies that the separate amendments which your committee had already caused to be drawn be introduced at the extraordinary session which the Governor will probably call during the coming winter. We have good reason to believe that these amendments will receive favorable action.

In conclusion we wish to thank the various county medical societies for their coöperation, and to urge upon the entire membership of the State Society such unity of purpose, endeavor, and expression on the subject of workmen's compensation legislation that our opponents in legislative hearings may in the future be unable to advance again so effectively the argument that the doctors themselves were far from being in agreement regarding the proposed changes. Querulous objections to certain minor points in our proposed amendments certainly harmed our cause not a little.

Respectfully submitted,

CALVIN M. SMYTH, JR., *Chairman*,

EDWARD PARDOE,

GEORGE H. CROSS,

CHARLES FALKOWSKY,

LEWIS K. FERGUSON,

GEORGE W. HAWK,

GEORGE L. LAVERTY,

WILLIAM H. MAYER,

FRANKLIN P. PHILLIPS,

LOYAL A. SHOUDY.

MEDICAL ADVISORY COMMITTEE TO THE STATE EMERGENCY RELIEF BOARD

To the President and House of Delegates:

This report of the Medical Advisory Committee to the State Emergency Relief Board epitomizes our activities in connection with emergency medical relief since October, 1934.

The 1934 House of Delegates referred to us a resolution introduced by the Schuylkill County Medical Society. Additional funds were made available and thus the features complained of have been met in part.

Tardiness in issuing medical orders has been discussed with the administrative officers, and a continuous effort is being made to improve this service. Effective medical orders may be obtained promptly, even in remote districts, by the physician or relief recipient mailing to the county relief administrator a written request for the same at the time of the first patient contact. The medical order will be postdated as of the day the letter was posted. We have been and are continuing to exert every effort toward continuing the private patient-private physician relationship.

The dissatisfaction, wherein expressed, in regard to limitations placed upon medical relief has been almost invariably beyond the control of the State Advisory Committee and the State Emergency Relief Board on account of limitation of funds. Additional funds have been made available for medical services since October 1. It is the feeling of this committee that such criticisms in the main have been corrected within reason. This committee will continue to press for additional funds. It is our hope that eventually the obstetric fee can be raised to \$25 in accord with our original recommendation.

On Oct. 3, 1934, the State Emergency Relief Board requested our coöperation in providing for the participation of osteopaths in the service. The SERB had been importuned for months by the osteopaths to have a representative placed on the State Medical Advisory Committee.

We recommended the creation of a State Osteopathic Advisory Committee which should function in an advisory capacity in practices affecting their particular school of practice, such committee to serve in relationship to the State Emergency Relief Board in the same manner as do the respective State Advisory Committees pertaining to the practice of medicine, dentistry, pharmacy, and nursing.

We further recommended that any problem presenting itself which might be of common interest to their respective committees should be referred to the chairman of each state advisory committee for joint consideration.

During the first year of emergency medical relief operation about 370,000 families were on relief, while the amount of money available for medical care averaged about \$150,000 monthly. Your committee has had frequent conferences with administrative officials concerning increased funds. Coöperation by our Board of Trustees and various county medical societies has assisted us in this effort.

During the months of March, April, and May (the latest available statistics) the relief load has averaged 460,000 families, and \$380,000 has been the average monthly expenditure for medical relief.

The State Emergency Relief Board has called to the attention of your committee allegedly perfunctory service rendered by some physicians. Instances were cited in which bills have been rendered for services which have been casual patient contacts, and during which diagnoses were made without physical examination or history-taking. The unthinking or careless few who have given such casual or indifferent attention to relief recipients must be reminded of their responsibility to the medical profession. Your committee feels that this is a continuous educational problem, primarily not within our function but worthy of the attention of the House of Delegates and the county medical advisory committees.

Promptly upon the appointment of this committee last October we initiated an effort to revise the "Rules and Regulations Governing Medical Care Provided in the Homes to Recipients of Unemployment Relief." The changes in the state administration and uncertainty regarding the total amount of funds the 1935 legislature would provide for relief greatly delayed action toward this end. A conference attended by physicians, dentists, pharmacists, nurses, osteopaths, hospital representatives, social workers, and laymen was held at Harrisburg on June 27, 1935. At the time of preparing this report, negotiations are being conducted with the Relief Administration in an endeavor to amplify the service and

render increased recognition to the physician. This revision should be completed and in operation before this report is in print.

Work relief was instituted and substituted for direct relief after the emergency medical relief program became operative. As earnings were insufficient for the employed recipient to provide his own or his family's medical care, this service was provided for such families because this form of budgetary deficiency existed.

Beginning June 1, 1935, work relief was transferred from control of the SERB to a newly created department, the Works Progress Administration. Your committee has been unable to learn of any plan contemplated to provide medical care to the families of such work relief recipients who will receive an average wage of \$50 per month. It is anticipated that about 60 per cent of the direct relief load will be provided for under work relief within the next several months.

The PENNSYLVANIA MEDICAL JOURNAL, issue of July, 1935, page 822, records a resolution introduced by your committee and adopted by the Emergency Medical Relief Service Conference at Harrisburg on June 27. The reply to the recommendations of said resolution as received from Federal Director Harry J. Hopkins is not very promising.

The creation of this new Works Progress Administration also terminates the plan under which medical treatment had been provided employees injured on work relief projects. No information is available as to how this service will be continued or controlled (See *Journal A. M. A.*, June 23, 1935). Your committee has been privileged to coöperate with the SERB and the State Workmen's Insurance Fund in this effort during the past year. The experience therein obtained is urgently recommended for study in the further development of Pennsylvania's workmen's compensation laws.

The Federal Emergency Relief Administration has recently provided funds for a venereal survey. This committee was consulted by the Pennsylvania SERB, and there resulted plans for a survey of syphilis in pregnant women. This program was inaugurated June 1, 1935. Our State Society's Commission on Maternal Welfare and the State Department of Health are co-operating commendably in this effort.

It has been a pleasure for this committee to coöperate with our Emergency Child Health Committee in the various fields of its endeavor. The teaching of dietetics in homes has been stabilized. Cod liver oil of a high standard has been made available in some counties.

Mr. Eric H. Biddle, executive director of the SERB, retired with the change in the state administration in January. Our profession owes a debt of gratitude to this able executive who, on every occasion, was more than helpful in our difficult endeavor. His parting message to physicians is quoted as follows:

"I count the association with your group as one of the genuine privileges of my connection with the State Emergency Relief Administration. I am glad to have known so many members of your old and honorable profession, to have observed your genuine interest, and to have received your whole-hearted coöperation in pioneering the organization of medical relief on a state-wide scale. It has proved one of the most satisfactory relationships in my experience as Relief Director for the past two years."

Mr. Robert L. Johnson, who succeeded Mr. Biddle, has been equally interested and coöperative in the program of emergency medical relief. He has an instinctive grasp of the professional point of view. Dr. Harold A.

Miller has continued his duties as medical director with a sympathetic understanding of the problems of the physician, always receptive to the suggestions of your Medical Advisory Committee, and untiring in his labor.

The county medical advisory committees throughout the state have functioned admirably well. Theirs has been an exacting duty. Subjected to unjustified censure, their only recompense has been the consciousness of a duty and a public service well done. Realizing a need for decentralization in order that flexibility of the program may better meet local needs, the relief administration will place more responsibility on these committees under the revised Rules and Regulations. This is the answer to those social workers who would regiment medical practice in accordance with their fantastic theories. As an organized profession we will thus assume an increased obligation. We dare not fail to meet this challenge. While conscious of the need to assist the SERB in maintaining administrative overhead expenses at a minimum, we must also be mindful of the tremendous contribution in time and effort which the members of various county medical advisory committees are constantly making.

In conjunction with the Board of Trustees and the Committee on Medical Economics, your committee has prepared an outline for a survey and a study of the costs of medical care in the state. This plan was presented to the SERB with a request for funds to conduct the survey. No appropriation has been made. Up to this time it has also been impossible to ascertain what attitude the Works Progress Administration will take on projects of this type.

In its original concept, medical relief was designed as an emergency measure. Economic trends indicate that the tide has turned and that our nation is gradually emerging from a tragic cataclysm. With the return of industrial activity many employables will pass from unemployment relief rolls, but an undetermined number of unemployables and indigents will remain to swell the ranks which existed prior to 1930. Emergency medical relief has served as a laboratory of medico-economic research in which most of us have taken some part. It is now timely for us to analyze our efforts and evaluate them in the light of present sociologic trends.

There exists within our own society's membership some divergence of opinion concerning the principles on which emergency medical relief has been established. Those who have criticized destructively have offered no alternative. Conscious of the need for a more adequate medico-economic system to provide medical care for the indigent, your committee has attempted to guide the practical evolution of such a plan. Crudities are evident. The limitation of funds available definitely precludes much of the expansion desired.

We therefore direct your attention to the fundamental principles upon which emergency medical relief has been laid, which in too few Pennsylvania counties has its counterpart in plans for medical service to the indigent, subject to the control of county poor boards.

Shall we, as a united body, continue to commit ourselves to the principle that it is the duty of governmental divisions of the state and counties to provide, under medical organization influence, medical care for the indigent, with free choice of physician, and with payment on a fee basis? If so, then let us support it as a policy, and by the quality of our service entrench ourselves to carry on the struggle until adequate funds are provided. (Experience with Workmen's Compensation indicates that this may require many years.)

If the principles herein supported are unsound, let this House of Delegates so record itself.

Respectfully submitted,

GEORGE L. LAVERTY, *Chairman*,
W. BURRILL ODENATT,
HARRY T. PRICE,
CHARLES H. SMITH,
WILLIAM EGBERT ROBERTSON,
WALTER F. DONALDSON.

COMMITTEE ON CONSERVATION OF VISION

To the President and House of Delegates:

Your Committee on Conservation of Vision takes this opportunity to report to you upon its activities during the academic year just completed. Perhaps the most outstanding have to do with the legislative work of the society, since some 5 bills were introduced in the legislative session just adjourned, which bills were concerned with the field that our committee is presumed to cover.

Two optometric bills were interpreted as being detrimental to the best work in the domain of visual conservation, and time was taken by your committee to interest not only the Eye Section of the Philadelphia County Medical Society but the several hundred scattered ophthalmologists throughout the state, with the view of having them use their influence to defeat these obnoxious measures and conserve the higher type of ophthalmic service for the public.

In this work the committee merely supplemented the work of the State Society Committee on Public Health Legislation, using the machinery of its several component county affiliates to sensitize the legislators as to the real public interest.

An Act for the prevention of blindness, H. B. No. 2584, requiring the reporting of cases of inflammation of the eyes of infants passed the House; was referred to the Committee on Public Health in the Senate, and indefinitely postponed.

The revised pension bill for the blind was also given consideration by this committee.

The main project of the committee, that of state-wide publicity for the facilities afforded by the medical profession in the domain of ophthalmology, continued to enjoy popularity, not only among the physicians doing eye work but among the various lay organizations dedicated to public service in general. This partook of the nature of the preparation of programs, using in many cases motion picture films, which were presented before lay and professional groups in Berks, Delaware, Montgomery, and Philadelphia counties. The lay groups consisted of woman's auxiliary units, Educational Week for the Blind (Philadelphia), Educational Week for the Blind (Reading), Boy Scouts (Philadelphia and Delaware counties). Several meetings before local and near-by medical societies may be included in this list. Several radio broadcasts were prepared and delivered over Philadelphia radio stations.

Valuable contacts were also made with the State Council for the Blind, the Pennsylvania Federation of Woman's Clubs, the Philadelphia Health Council, Woman's Club of Coatesville, and Monaca Woman's Club, as well as quite a number of parent-teacher associations.

The committee joined in the sponsorship of the study of ophthalmia neonatorum conducted by Dr. Louis

Lehrfeld, and with the project of the Committee for the Ophthalmic Examination of School Children inaugurated by the Philadelphia County Medical Society. Several of the county society committees on conservation of vision accepted the program of this committee and joined in coöperation with us.

With the assistance of several ophthalmologists in the eastern part of the state a collection of specious advertising relative to the treatment of ophthalmic conditions was assembled, and appropriate protests were made through better business bureaus and similar agencies aiming for the curtailment if not complete elimination of the same.

Through the radio conference of the Philadelphia County Medical Society protests were also lodged regarding obnoxious radio advertising.

As is so frequently the case, the tangible results of such activity are not immediately demonstrable, but it is our feeling that this work is of such great importance that it should be kept up continuously without a break, since its absence will be reflected in a number of ways not only detrimental to the public but to the profession as well. The vigorous and aggressive movement launched by the irregular practitioners during the 1935 ordinary session of the Pennsylvania legislature is mute testimony to their ambition and intention to place themselves before the public as the only ones competent to diagnose and treat all ailments of the eyes.

Respectfully submitted,

SAMUEL HORTON BROWN, JR., *Chairman*,

LLOYD C. PIERCE,

HUNTER H. TURNER.

COMMITTEE ON APPENDICITIS MORTALITY

To the President and House of Delegates:

The annual meeting of the Committee on Appendicitis Mortality was held on Dec. 11, 1934, at Harrisburg, with all members but 2 present. President Behrend and Secretary Donaldson also attended.

The scope of the work planned for 1935 was somewhat enlarged over the previous year. Because 40 per cent of the cases of acute appendicitis occur in persons in the high school group, a talk on appendicitis was planned for on the assembly program of every high school in the state, and a warning sticker given to every student. Some of the members of the committee were able to cover most of the high schools in their districts before the end of June, but in the thickly populated districts this was impossible and the work will be continued in the fall.

The members of the committee are each conducting a survey throughout their respective districts, as has been done in Philadelphia for the past 5 years. All hospitals are being requested through the state and county medical societies to permit the abstracting of their clinical records on cases of acute appendicitis, and upon this data the survey of the entire state will be based. Efforts are being made to enlist the services of a competent nurse in each district who can do this abstracting year after year to eliminate the personal equation of a change in personnel. The members of the committee will be in charge of the work and the compiling of the statistics will be done by them.

As this survey is carried on from year to year, the committee will be able to conduct its campaign with far greater efficiency toward the ultimate reduction of the mortality to a figure which will mean the irreducible catastrophes only.

The following has been or will be accomplished before the end of the year:

1. Three hundred thousand warning stickers supplied by the State Society will be distributed.

2. Illustrated talks by the members of the committee will be given to the high schools in their districts, using stereopticon slides furnished by the State Society.

3. A leaflet containing abstracts on different appendicitis problems helpful to high school students will be written by the members of the committee and printed by the State Society and distributed in the high schools, with the request that an abstract appear in each edition of the school paper during the time of the campaign.

4. A survey of acute appendicitis throughout the state will be made.

5. An effort will be made to have an appendicitis meeting held in councilor districts where they were not held last year.

6. County societies will have at least one paper on appendicitis read during 1935.

The committee was enlarged from 5 to 10 members because of the greater amount of work to be done. They have all coöperated most enthusiastically, and although complete reports cannot be given until the end of the year, the following report is evidence of what has been accomplished.

President Behrend and Secretary Donaldson have both supported the committee in every way possible to forward the work by having the State Society supply stickers, slides, and leaflets.

Reports from individual members of the Appendicitis Committee follow:

Dr. John O. Bower, Philadelphia, Chairman.—Eighty high schools and 25,000 students have been covered; surveys given to 3 high schools to be abstracted in the hygiene pamphlet and talks on same to be given by the teachers in hygiene classes. Before the end of the year all high schools will be covered. Talk before Rotary Club. Talk before the staffs of 3 large hospitals. The yearly survey which has been conducted since 1928 is now in process of being carried out.

Dr. Cecil F. Freed, Reading.—Talks before high schools; approximately 8000 stickers given out. Talks before Rotary Club, Reading Torch Club. Expects to start giving talks to county medical societies in the fall. Ten-year survey made of cases in Reading Hospital. Report of this given in talk before Berks County Medical Society. Surveys in 2 other hospitals are planned to be completed before the end of year.

Dr. Herbert B. Gibby, Wilkes-Barre.—Nine high schools and colleges covered by talks. Stickers will be distributed in the fall.

Dr. Maxwell Liek, Erie.—Received 10,000 stickers and some of the schools are covered. Joint meeting of the staffs of 2 hospitals in Erie devoted entirely to the subject of appendicitis. Survey in process of being carried out. Great interest has been shown in the work as evidenced by frequent discussions in staff rooms; feels that much good has already been accomplished.

Dr. S. Gilmore Pontius, Lancaster.—Has arranged for one entire meeting of the Lancaster City and County Medical Society to be turned over to him for the discussion of appendicitis. Working on survey covering the past 10 years, and the results will be presented before the Lancaster City and County Medical Society. Stickers to be distributed in the fall.

Dr. Joseph Replegle, Johnstown.—Has covered all high schools in Cambria County during the past year;

most of the service clubs and the Cambria-Somerset Druggist Association; 5000 stickers distributed. Survey of cases for 1 year prior to July 1, 1934, and at the present time a second survey covering 1934 is in process of being carried out. Has appointed Dr. Robert Johnston of New Kensington to head a committee in Westmoreland County, and he will start work in the fall. Dr. Charles Barchfield is in charge of Somerset County.

Dr. John W. Shirer, Pittsburgh.—Two high schools covered; 3200 stickers distributed. Has arranged to contact the remainder of the high schools in the fall. Two papers—one before the Greene County Medical Society; one before the Woman's Auxiliary to the Beaver County Medical Society.

Dr. Harvey F. Smith, Harrisburg.—Talks before parent-teachers associations by Drs. Fluke, Sherman, and Smith. Talks before 2 first-aid groups of one Junior High School. Talk before Dauphin County Medical Society. Talk before staff at Harrisburg Hospital at second annual postgraduate assembly of the Harrisburg Academy of Medicine, May 23. Working on survey—has not completed it in all hospitals as yet. Feels that they have made a good start.

Dr. Paul Correll, Easton.—Talks in senior and junior high schools and also to upper classes in grade schools. All county medical societies set aside one day to discuss early diagnosis and early surgery in appendicitis. Has had splendid coöperation from the doctors in the district who willingly took time to talk on the subject. Has addressed 20 service and religious organizations. Newspapers gave excellent publicity and were very coöperative.

Respectfully submitted,

JOHN O. BOWER, *Chairman.*

JOHN F. BACON,

PAUL CORRELL,

CECIL F. FREED,

HERBERT B. GIBBY,

MAXWELL LICK,

S. GILMORE PONTIUS,

JOSEPH P. REPLOGLE,

JOHN W. SHIRER,

HARVEY F. SMITH.

COMMITTEE ON PEDIATRIC EDUCATION

To the President and House of Delegates:

The Committee on Pediatric Education desires to submit the following report:

Two meetings of the Committee were held, one in September and one in October, 1934, to plan the course of action and arrange details of the medical material that should be presented to the various county medical societies or other groups.

The committee was unanimous as to the type of material that should be presented. During the past year various members of the committee have conducted postgraduate seminars, either alone or in conjunction with the State Society Postgraduate Education Committee, at York, Williamsport, Sayre, Scranton, Punxsutawney, Gettysburg, Franklin, Somerset, Uniontown, and Philadelphia. In addition, several members of the group have taken an active part in parent-teacher associations, the National Education Association, and health institute meetings, speaking on pediatric education to lay groups.

There has been a very happy relationship with the Postgraduate Education Committee under the chairmanship of Dr. Donald Guthrie. The Pediatric Education Committee desires to continue this liaison.

Plans have been discussed for an extension of this

particular committee's work, but nothing definite has been done along this line.

Respectfully submitted,

RALPH M. TYSON, *Chairman,*

EMILY P. BACON,

EDWARD L. BAUER,

HOWARD C. CARPENTER,

JAMES K. EVERHART,

*

JOHN M. HIGGINS,

ROBERT A. KNOX,

FRANCIS T. O'DONNELL,

HENRY H. PERLMAN,

HENRY T. PRICE,

ROBERT K. REWALT,

JOSEPH STOKES, JR.

COMMITTEE TO STUDY AND REPORT ON FORMS OF MEDICAL PRACTICE IN STATE-OWNED SCHOOLS AND COLLEGES

To the President and House of Delegates:

We hereby submit the report of the Committee to Study and Report on Forms of Medical Practice in State-Owned Schools and Colleges, in which report we have also included *state-aided* schools and colleges.

At the convention held in the city of Pittsburgh in October, 1932, there was brought to the attention of the House of Delegates the possibility of the various state teachers colleges and other state-aided or state-owned schools employing full- or part-time physicians to care for the student body, teachers, and employees of said institutions in violation of "our code of ethics." Nothing was done or suggested at that convention, because there was no positive proof that such action had or would be taken.

However, before the convening of the next convention in October, 1933, at Philadelphia, physicians had been placed in several schools either on full or part time, whose duty, among others, was to care for the student body in sickness or accident. This procedure was not an innovation, as several of our large universities and colleges had practiced this type of medicine in their institutions for some time under the title of "student health service." Realizing that the employment of doctors in such capacity might be a violation of our code in "the particular of interfering with reasonable competition," it was made a motion of record that we secure from the Judicial Council of the American Medical Association a concrete, absolute definition of contract practice within the meaning of the term "reasonable competition," and also that a committee be appointed to investigate the contract of all physicians practicing in said schools and the type of medical service rendered. Such a committee was selected, and they reported at the 1934 convention held in Wilkes-Barre. This report was not accepted. A new committee, nominated from the floor of the House, was designated to make a further survey, which survey we are now giving in detail to our appointing power and the organized profession throughout the state.

With the above brief statement let us outline our procedure in this investigation with as little detail as is consistent with supplying the information regarding the problem. Our first duty was to secure from the Judicial Council of the American Medical Association a concrete, absolute definition of contract practice with-

* Dr. Charles A. Fife of Philadelphia, a member of the committee, died June 15, 1935.

in the meaning of the term "reasonable competition." We hereby submit this definition verbatim:

"By the term 'contract practice' as applied to medicine is meant the carrying out of an agreement between a physician or group of physicians as principals or agents and a corporation, organization, or individual to furnish partial or full medical services to a group or class of individuals for a definite sum or for a fixed rate per capita."

It is not within the province of your committee to change this basic declaration of principle in any way, but we feel that it is our duty to examine into the contract, either signed or implied, under which the school physicians are now functioning, and with that premise established your committee sent to the president of every state-owned or state-aided school the following questionnaire:

1. Do you have a student health service at your institution?
2. Is the doctor in charge of your service under full-time contract to you?
3. What is the amount of his salary?
4. What are his specific duties?
5. Are there any hospitals in your community?
6. Does your student health service render laboratory, roentgen-ray, and physical therapy services?
7. Does your physician treat the members of the faculty?
8. Does your physician treat school employees?
9. Are students charged any fee for health service care? If so, what amount?
10. Were the students of your school treated by outside physicians before the advent of your school doctor, if you employ one?
11. May this committee examine the contract of your school physician?

We also sent to all the doctors practicing in the vicinity of the said schools, as far as it was possible, the following questionnaire:

1. Are you a general practitioner now engaged in active practice?
2. Do you practice in the vicinity of your state college?
3. Has your practice been affected by your student health service? If so, to what extent?
4. Are you satisfied with the standard of medical care rendered to the students?
5. Did you treat the pupils in your school before the advent of the school physician?

Your complete answers to the above questions will be held strictly confidential.

After some time we received an answer from every state-aided and state-owned school throughout the commonwealth; also an answer from a great preponderance of the doctors practicing near the schools and colleges. Their reaction is very illuminating.

We next contacted the Department of Public Instruction through its then superintendent, Dr. James N. Rule, who gave us some very valuable information and suggested to us that we interview Dr. I. D. Metzger of the State Board of Medical Education and Licensure, who, he stated, was responsible for outlining the duties of the doctors in the various institutions.

During the course of our investigation, we discovered that there were certain fees for certain definite subjects that were being taught in the institutions; such fees were being paid into the state treasury as evidenced in their curriculum. We discovered also that several institutions collected a so-called "activities fee," ranging in the various institutions from a few thousand to \$25,-

000, which was being paid to a so-called college government association or some other agency. We were unable to discover in what manner these funds are being distributed.

Fortified with the results of our questionnaires and letters, we believe that we are now able to make an intelligent and comprehensive report of our findings.

In the very first statement of this report, there was brought to the attention of the House of Delegates the possibility of the various state teachers colleges and other state-aided or state-owned schools employing full or part-time physicians. The maker of that motion, who is the chairman of this committee, made that motion definitely with the idea that the officers of the State Medical Society would make some investigation of the proposed employment of physicians in these institutions. But, in as far as we have been able to discover, nothing was done. In the next paragraph of this report, you will notice that we asked for an absolute definition of "contract practice," which has been submitted above. Working from that premise, we immediately contacted Dr. Rule, superintendent of the Department of Public Instruction, who submitted the names of state-owned or state-aided schools which employed part-time or full-time physicians, whose salaries range from \$100 per annum to \$3906 per annum, as follows:

State Teachers College at Bloomsburg	None
State Teachers College at California ..	None
State Teachers College at Cheyney ..	None
State Teachers College at Clarion ..	\$810 (part time)
State Teachers College at East Stroudsburg	990 (part time)
State Teachers College at Edinboro ..	1200 (part time)
State Teachers College at Indiana ..	None
State Teachers College at Kutztown ..	None
State Teachers College at Lock Haven	None
State Teachers College at Mansfield ..	3906 (full time)
State Teachers College at Millersville ..	None
State Teachers College at Shippensburg	810 (part time)
State Teachers College at Slippery Rock	None
State Teachers College at West Chester	3240 (full time)
Pennsylvania Soldiers' Orphan School	1140 (part time)
Pennsylvania State Oral School for the Deaf	650 (part time)
Thaddeus Stevens Industrial School ..	100 (part time)
Home for the Training in Speech of Deaf Children	None
Pennsylvania State Nautical School ..	1800 plus \$432 maintenance
State College at State College	3475 plus house with light and heat

Dr. Rule also informed us that state-aided institutions, such as the University of Pennsylvania, Pennsylvania State College, Temple University, and University of Pittsburgh, were not under the budget supervision of the Department of Education; hence it was made imperative that we should secure from them the status and salary of their employed physicians.

At the University of Pittsburgh the salary of the director of the Student Health Service for Men is \$7500. The salary of his assistant is \$2700. The salary

of the director of the Student Health Service for Women is \$3500.

At Hahnemann Medical College students receive gratuitous medical service from members of the faculty and are not charged any fee for health service care.

The University of Pennsylvania Department of Physical Education is directed by the Dean and a Director of Student Health, who are paid "appropriate professional salaries." Under the director a staff of physicians, nurses, dentists, and hygienists is employed, whose duty it seems is to give medical attention for a fee of \$10 per year to any and every student who may be injured or become sick.

At Temple University a regular fee is charged, if possible. The doctor is supplied by the University Hospital. If, however, the student resides within the city of Philadelphia he may select his own physician.

On January 3 we received a letter from Dr. Rule in which he quite elaborately set out the duties of the physicians in these institutions, and also a rather comprehensive reason for their being employed. He states, "As a result of insistent demands that a general policy be established in the teacher preparation institutions, with respect to health care and study, a survey was made of one of our larger institutions, and, on the basis of the findings in this institution, a general policy was discussed by the Board of Presidents of the State Teachers Colleges. In this discussion Dr. I. D. Metzger, chairman of the State Board of Medical Education and Licensure, made helpful contributions. It was the general feeling that a licensed physician should be employed on a part-time basis or full-time basis, who could adequately cope with the health needs of the students by rendering health care and advice."

It will be noted in the forming of this plan that organized medicine was not consulted, and that this plan is entirely the result of the desires of the Board of Presidents of the State Teachers Colleges.

At the suggestion of Dr. Rule, we wrote to Dr. Metzger and received from him the following program which, as he understood, was to be followed definitely by the doctors practicing in state-owned or state-aided schools: "Early in 1932 specific complaints came to the Board of Medical Education and Licensure to the effect that nurses were practicing medicine in state teachers colleges. Intimations of this had been coming to the board for some time previous to this. When this specific complaint was received, the matter was taken up with Dr. James N. Rule, State Superintendent of Public Instruction. Dr. Rule was keenly interested in the matter and asked Dr. Charles D. Koch, then Deputy Superintendent of Public Instruction, with the chairman of this board to make an inspection of the school involved, which, I may say, was the California State Teachers College.

"Inquiry was made in respect to the activities of other colleges in so far as the health and medical care given to students was concerned. Following this, Dr. Rule asked the chairman of this board to appear before a meeting of the presidents of the state teachers colleges in his office on May 13, 1932. A free and candid discussion was conducted of the whole situation. There was presented to this conference an outline, a copy of which is attached hereto."

OUTLINE

"The first page of this outline, as you will note, took up the present situation and its dangers. The second part takes up the duties of a physician who might be employed for part- or full-time service. In

the discussion and in all correspondence pertaining to the matter, one point kept in mind throughout was the needs of these students. Strangely enough, the physical condition of the students had been a secondary consideration to the scholastic standing which they might obtain in the school. The presidents of the various colleges eventually agreed that the physical care should be the first consideration, and that this should be made so definite to each student that he or she as a teacher later would look upon the same need in the care of pupils under his or her care.

"Where this program has been followed in the manner intended, much improvement has been shown not only in the matter of emphasis upon physical education, but also in the care of students who happen to contract diseases. Furthermore, it was shown that the physicians in the town surrounding the school have gotten very much more from the institution since the doctor in charge has pointed out the needs more definitely to the students. His work in the school in all cases, instead of limiting the work of the general physicians in the town, should amplify the same. It is not the purpose to have the school physician take care of sick people in the school, excepting as first-aid treatment; since he is not permitted to charge for his services, he would not, of course, be inclined to carry the responsibility. It is his duty, however, to see that students are properly referred to a physician who will care for them in their peculiar needs. Such a method of procedure, furthermore, would place the responsibility on a licensed physician, in so far as professional care is concerned, and not upon nurses who have no legal standing. As stated before, it was this feature particularly which caused the whole investigation to be made and a plan instituted to be proposed."

It is quite evident that this policy has not been adhered to, and it is also quite evident that organized medicine in our state was not consulted when the plan was devised by school officials and that Dr. Metzger was called in only in the capacity of an expert witness.

Let us now analyze the questionnaires to school presidents and summarize them:

SUMMARY OF 19 QUESTIONNAIRES SENT TO THE COLLEGE PRESIDENTS

1. Do you have a student health service in your institution?
13 yes; 1 unorganized; 1 modified; 1 health entrance examination only; 2 no.
2. Is the doctor in charge of your service under full-time contract to you?
7 full time; 8 part time; 3 no; 1 unsatisfactory answer.
3. What is the amount of his salary?
1—\$13,700, divided as follows: \$7500 to director of student health for men; \$2700 to assistant director; \$3500 to director for women.
1—\$3900.
1—\$3600.
1—\$3475, with light, heat, fuel, and water.
3—\$990.
1—\$1200.
1—\$1.50 to examining physician per student per year with probably 1000 students.
1—Appropriate professional salary (whatever that may signify).
1—Gives gratuitous service.
3—Paid for actual work done.

- 2—Probably receive substantial salary—question answered unsatisfactorily.
 2—No salary.
 1—Not satisfactorily answered.
4. What are his specific duties?
 4—Sanitation, physical examination, dispensary and infirmary care to students, and health instruction. A resident physician.
 5—The same as above plus treatment of employees and faculty.
 1—Duties not specified.
 1—Clinic, hospital, and home care. Charges for same.
 1—Physical examination to determine fitness to teach; \$1.50 each.
 1—College office from 8 a. m. to 9 a. m. daily, subject to call at any time.
 6—Refer to family physician.
5. Are there any hospitals in your community?
 9—Yes.
 1—Hospital on campus of school.
 6—No.
 1—Small private emergency hospital.
 1—Unsatisfactorily answered.
6. Does your student health service render laboratory, roentgen-ray, and physical therapy?
 7—Yes.
 11—No.
 1—Unsatisfactorily answered.
7. Does your physician treat the members of the faculty?
 5—Yes.
 13—No.
 1—Unsatisfactorily answered.
8. Does your physician treat school employees?
 6—Yes.
 12—No.
 1—Unsatisfactorily answered.
9. Are students charged any fee for health service?
 9—Charged fee; 10 did not answer.
10. Were the students of your school treated by outside physician before the advent of your school doctor, if you employ one?
 14—Yes.
 5—Still employ outside physicians.
11. May this committee examine the contract of your school physician?
 8—Yes.
 11—No contracts.

SUMMARY OF QUESTIONNAIRES SENT TO 70 DOCTORS

1. Are you a general practitioner now engaged in active practice
 39—Yes.
 3—Specialists.
2. Do you practice medicine in the vicinity of your state college?
 40—Yes.
3. Has your practice been affected by your student health service? If so, to what extent? Following are answers given by some of the physicians affected:
 8—No.
 "Total extinction—one-third loss"; Pressure brought to bear to go only to the school physician"; "Quite helpful"; "Can not estimate; have practiced only 2 years in college town"; "In all probability it has been affected"; "Very much affected"; "Nothing doing during present administration"; "I am employed by the college"; "Not seriously"; "Occa-

sional appendectomy; formerly had several calls each month"; "Yes, students now go to infirmary for treatment"; "The man who gets the bulk of the work at the teachers college is a member of the Board of Directors and, of course, has the advantage over all of us. This should be corrected, and all of us given a show"; "Somewhat, probably"; "Yes"; "Yes, a member of the present Board of Directors is school physician, and not an alumnus. All surgical work is referred to his personal friend. Three other physicians of equal ability, who are members of the alumni, are not recognized"; "Yes, don't know extent"; "Yes, considerably"; "I have done most of the medical work at college for the past 9 years and am still doing it"; "Seemingly, only very occasionally have a call"; "Yes"; "Have not been called in by such institutions"; "Not been affected"; "None practically"; "There is no appointed school physician at the state teachers college, but for some reason I have not been called as often in the past 2 years to attend students at the college."

4. Are you satisfied with the standard of medical care rendered to the students?
 13—No specific knowledge.
 16—Yes.
 8—No.
 5—Employed by school.
5. Did you treat the pupils of the school before the advent of the school physician?
 38—Yes.
 2—No.

You must understand that it was almost impossible for us to receive answers from all the doctors to whom we have written.

Above, in as concise a manner as it was possible, we have given to you the examination of these institutions as we were directed. It has been a stupendous undertaking, but we are fully convinced that the effort was worth while. In summarizing the report we find that in Dr. Rule's statements and in Dr. Metzger's advice there was never at any time any intention for the physicians employed in these institutions to give care to the sick, the injured students, faculty, or employees. In fact, it was the feeling that the employing of these physicians would be an aid not only to the student but to the physicians practicing in the neighborhood of the said institution. As you may notice in this report, in some of the towns in which the school is located, there are also one or more hospitals supported by state appropriations, which are equipped with all the necessary apparatus (roentgen ray and physical therapy) to take care of the needs of the community without the added expense of placing this apparatus in these schools, where it is not possible, we are sure, for that work to be done as efficiently as in these hospitals where they have trained doctors and technicians. We also find that there is great dissatisfaction among the physicians in the communities in which these schools are located, because of their objection to having state-employed doctors competing with them in their work.

It is the opinion of your investigating committee that the employment of physicians in the schools to care for sanitation, health inspection, and teaching of hygiene is not in violation of our code, but we do believe that the practice of these physicians in caring for the sick and injured students, employees, and faculty is a violation of our code of ethics, in the matter of reasonable competition, and therefore should be stopped. We further

believe that these physicians are engaged in a form of contract practice in violation of the meaning of contract practice of our code. We advise its discontinuance and suggest that the plan outlined by Dr. Metzger be followed in its entirety.

Respectfully submitted,

JOHN A. FARRELL, *Chairman*,
CLOY G. BRUMBAUGH,
FRANCIS A. FAUGHT,
MAURICE T. LEARY,
ARNO R. ZACK.

COMMITTEE ON MEDICAL ECONOMICS

To the President and House of Delegates:

Your Committee on Medical Economics respectfully submits the following report of its activities covering the period from January 1 to date. Various details have been submitted to the Board of Trustees at their regular interim meetings. Reference may be had to the details in these reports.

The Committee on Medical Economics has been functioning in an advisory fact-finding capacity. It has attempted to work in as close coöperation with the Committee on Public Relations and the Committee on Public Health Legislation as was possible. This report at this time is only in the nature of a summary of our impressions of various phases of medical economics as it applies to the county and the state societies.

COMPULSORY HEALTH INSURANCE

The committee has been actively engaged in collecting and disseminating data concerning compulsory health insurance. It assisted in the supplying of information and statistics to the Committees on Public Relations and Public Health Legislation. The committee has kept in close contact with other state medical societies also active in the campaign against compulsory health insurance. The result of these activities was the failure of passage of 2 compulsory health insurance bills in Pennsylvania.

We recommend that we maintain our position of continued approval of the 10 points as laid down by the American Medical Association at Cleveland and reaffirmed at the special session at Chicago in February, 1935.

We further recommend that continued educational activities be carried on both within and without the profession.

Although the preliminary skirmish has resulted favorably to our position, the battle is not yet won.

WORKMEN'S COMPENSATION

Since this phase of medical economics is in the efficient hands of a special committee, our activities have been confined to such phases as deal with the broad subject of medical economics. Specific recommendations should come from the special committee.

EMERGENCY MEDICAL RELIEF

The committee has attempted to keep abreast of the trends and tendencies of the program of emergency medical relief. It would appear that there is a definite trend toward the abolition of the present set-up and in its place the establishment of a permanent organization, political in aspect and tending to a certain disregard of the principles of patient-physician relationship and fee for service basis.

We recommend the approval of resolutions adopted at the special conference of medical and allied agencies interested in emergency relief, held at Harrisburg on June 27, 1935. These resolutions have already been forwarded to Director of Relief, Mr. Harry L. Hopkins, at Washington. The resolutions are as follows:

Resolution

WHEREAS, In 1931 the Governor of the Commonwealth of Pennsylvania, through his Secretary of Health, appealed to the officers of The Medical Society of the State of Pennsylvania (8250 members) to meet the then rapidly growing demand for medical service in the families of citizens believed to be temporarily unemployed, and

WHEREAS, The Medical Society of the State of Pennsylvania, through its 61 component county medical societies, had, within 60 days, effected coördinating relations with existing governmental health, welfare, and civic organizations throughout the state, whereby physicians in private practice agreed to give their services to the needy sick through such channels, as well as to continue to care for their own former patients now in economic distress, and

WHEREAS, Two years later federal, state, and county governmental units were so organized as to pay from tax or other governmental funds for all other forms of sustenance, The Medical Society of the State of Pennsylvania sought some form of remuneration for private physicians serving those on emergency relief, and

WHEREAS, Eighteen months of emergency medical relief service has now been completed, as sponsored in each county in the state by an advisory committee from each county medical society to each county emergency relief board, and this medical service maintained locally on a basis of private relationship between patient and physician and absolutely free from partisan political influence, has resulted in the delivery of sickness service of reasonably high quality, fair to patient, physician, and taxpayer alike, and

WHEREAS, The equitable continuation of this well-coördinated medical service may be threatened by proposals to remove from direct emergency relief to some form of work relief a majority of the families at present on unemployment relief, without provision for such phase of a deficiency budget as will prevent a relapse into the uncoördinated service prevalent in Pennsylvania before Dec. 1, 1933, therefore be it

Resolved, That this conference of representatives of the organized medical profession throughout Pennsylvania protest to the Honorable Harry L. Hopkins, Federal Administrator of the FERA, against the promulgation of such federal relief requirements as will obviously withdraw direct emergency medical relief service without provision for adequate remuneration to those transferred to work relief projects to finance their medical care in addition to paying for food, clothing, and shelter.

Resolution

WHEREAS, It is the belief of the medical profession and the allied groups involved in rendering health services that the highest type of medical service is best rendered when the free choice of physician is available to the recipient of these services, and when the traditional patient-physician relationship is maintained, therefore be it

Resolved, That no change in the system of distribution of medical service be considered which does not fully permit the free choice of physician, dentist, and pharmacist, and the maintenance of the traditional patient-physician, dentist, or pharmacist relationship.

SUBCOMMITTEES

In pursuance with the approval of the Board of Trustees of the recommendation made by the Committee on Medical Economics prior to January 1, the president was pleased to appoint 5 subcommittees of 11 members each, one on each subcommittee from each of the 11 councilor districts of the state. The subcommittees are as follows:

Health Department Coöperation directed by Dr. Walter S. Brenholtz.

Hospital Economic Relations directed by Dr. Max H. Weinberg.

Industrial Medicine and Contract Practice directed by Dr. Leonard G. Redding.

Participation of Lay Workers in the Professional Field directed by Dr. Edward L. Bortz.

Nursing Care directed by Dr. Francis F. Borzell.

These committees have prepared, or have in preparation, questionnaires, the purpose of which will be to secure so far as possible an accurate survey of the conditions in Pennsylvania covering the various phases of medical economics. The size of this program did not permit of its completion in this short time.

It is recommended, however, that each county society seriously consider these questionnaires as they are submitted to them and make their reports as accurate and complete as is possible. Superficial replies will tend to destroy the purpose of this survey.

COUNTY SOCIETY MEDICAL ECONOMICS ACTIVITIES

The chairman of this committee sent out a questionnaire to the various county societies in general, requesting information concerning the various activities in the field of medical economics. To date 36 have been received from the 60 counties. Incomplete as this report is, it indicates that a few counties are alive to the necessity for activity in economics.

We wish particularly to commend the following county societies for their coöperation: Allegheny, Chester, Dauphin, Lackawanna, Lehigh, Luzerne, Lycoming, Northampton, and Philadelphia.

It is possible that other societies have been quite active, but by their failure to respond the facts have not been placed in the hands of this committee.

We recommend that special effort be made on the part of each county society to keep the State Committee on Medical Economics fully informed of their activities in this field.

We have been called upon to investigate and advise in special instances concerning specific economic problems in various counties.

SPECIAL REPORT OF THE BUREAU OF MEDICAL ECONOMICS OF THE AMERICAN MEDICAL ASSOCIATION

Our preliminary review of this report leads us to recommend its approval in principle. We believe, however, that it leaves something to be desired.

In order to avoid precipitate action by any county society, looking toward the adoption of any plan for the care of the indigent or those of low-income groups, it is recommended that no county society take any action toward the establishment of any plan without having first consulted the State Committee on Medical Eco-

nomics. This is important since any plan that might be adopted in one county is very liable to influence conditions in neighboring counties. It is hoped that under all circumstances no plan will be considered which does not fully conform to the 10 principles laid down by the American Medical Association.

(More detailed recommendations will be made in a supplementary report.)

MEDICAL ORGANIZATION

Our observations have led us to the conclusion that the position of organized medicine from an economic standpoint in its relationship to threatened social changes, workmen's compensation, emergency relief, etc., can be greatly strengthened by greater emphasis upon basic medical ethics. It is believed that by the institution of advised disciplinary measures within our own ranks, medical ethics can be made a dynamic force so that the small percentage of physicians who fail to grasp the import of ethics may be compelled to do so.

It is recommended that steps be taken looking toward this end.

MEDICAL EDUCATION

We believe that many of the economic problems now confronting the profession have their origin in certain phases of our present system of medical education. In this we are supported by a number of our leading educators.

It is recommended, therefore, that a commission be appointed to specifically study this subject and report at a subsequent session of the House of Delegates.

MINORITY REPORT OF THE COMMITTEE ON MEDICAL ECONOMICS, 1934

The minority report of the Committee on Medical Economics, presented to the House of Delegates in 1934, was referred to this committee for further consideration. In view of the position of the American Medical Association and in view of the fact that there is no immediate demand for the adoption of any specific sickness insurance program, the committee is still holding this report under advisement and has no recommendations to make at this time.

Respectfully submitted,

FRANCIS F. BORZELL, *Chairman*,
EDWARD L. BORTZ,
WALTER S. BRENHOLTZ,
LEONARD G. REDDING.

PROGRESS REPORT OF THE CHAIRMAN EMERGENCY CHILD HEALTH COMMITTEE

*To the Board of Trustees of The Medical Society
of the State of Pennsylvania:*

No report was submitted to your board since a year ago, as the executive committee meeting was held in October and a state-wide meeting in December, a copy of the transactions of the latter having been sent to each officer and each member of the Board of Trustees.

Your chairman reports with pleasure that the work of the Emergency Child Health Committee continues to progress satisfactorily, the most notable progress being in the field of corrections. This report is based upon figures of examinations reported up to July 1, 1935.

Visits to counties have continued, Mrs. Strauss and Dr. Royer having accomplished excellent results in

stimulating action, as will be shown later, and bringing new counties into line.

PARTICIPATING COUNTIES

All of the 67 counties of the state have now been organized with the exception of the following: Mercer, Erie, Crawford, Lawrence, Beaver, Clearfield, Cumberland, Dauphin, Philadelphia, and Schuylkill.

Delaware County was organized and appointed a very excellent committee; 722 examinations were made in the county, strictly limited to school groups. They also made some comparisons of school health examinations covering a series of years which clearly demonstrated the need for additional service, as they showed a decided increase in malnutrition and in a number of handicaps commonly associated with undernourishment. A few months ago the chairman, Dr. George H. Cross, submitted his resignation and that of his vice-chairman. No successor has as yet been appointed.

Chester County has also become inactive, no reports having been received since Sept. 26, 1934.

Lebanon County has approved the project, selected a chairman and vice-chairman, and submitted a full committee, but it is as yet inactive as they are awaiting the Governor's appointments.

Since our last meeting Dr. Ira G. Shoemaker, chairman of the Berks County committee, has died. Dr. Robert L. Alexander has been appointed in his stead, and is in the process of organizing a county-wide committee, and is entering into the work with enthusiasm.

Dr. Frank G. Hartman resigned as chairman of the Lancaster County committee but continues his interest as chairman of their Advisory Board. In his stead the county society appointed Dr. E. Kearney Smith as chairman.

Dr. Charles H. Miner, chairman of the Luzerne County committee, has also resigned and the county medical society has appointed in his stead Dr. Francis T. O'Donnell.

That we have been able to maintain the interest of the chairmen and of the profession to the extent we have has been encouraging. Your chairman, however, would like to make an earnest appeal to the trustees to continue the active interest they have shown in the work of the counties as their activities are of great value in maintaining and stimulating the interest of the chairmen and the members of the profession under their jurisdiction. If they can render any assistance in stimulating organization in the counties that have not participated, such service will be greatly appreciated.

EXAMINATIONS

Eighty-eight thousand one hundred four examinations have been reported to July 1, 1935, from 55 counties, although it is known that additional examinations have been made which are not yet reported. The committees which were formerly reported as nearing the completion of their examinations have continued their services and have been occupied in examining the children in the new families coming on to the relief lists, and in the correction of defects and the promotion of the nutrition program.

RESULTS

There has been a very striking increase in the number of corrections of defects, supervision of the ill, and protection against smallpox and diphtheria. The accompanying table shows the defects found and their percentages and the corrections obtained with their per centages. In order to indicate the marked increase in corrections, there is also shown the number of correc-

tions secured, as of Oct. 1, 1934. This will be substituted for the detailed description of the various items embodied in the last report.

Quite a large number of reexaminations have been made in several of the counties and the improved health status noted in many of these children is one of the most encouraging features of the work. An item that has interested your chairman very much is the striking improvement in the nutrition of many of the children who have been relieved of badly diseased tonsils. An instance of this is a small boy in one of the counties who was very much under par and had badly diseased tonsils removed a year ago. Following this there was striking improvement in his condition and in his school work. This summer, having won his local marble championship, he was sent to the national tournament and won third place.

Malnutrition.—It is interesting to note that the average percentage of malnutrition continues about the same, the average total being 29 per cent as compared with 30.5 per cent in the report a year ago.

There is growing evidence of deficiency diseases resulting from the prolonged economic crisis. Seven cases of scurvy have been reported. It is probable that there are many of these cases unreported owing to the rarity of the disease in recent years and especially to the difficulty of diagnosis. Your chairman issued a warning of this increase to the county chairmen and urged that the information be transmitted to the examining physicians.

Home economics work continues to hold a very prominent position in the work of the county committees. Programs are now under way in 39 counties as compared with 27 a year ago. To date 43,580 mothers have been instructed in homes, classes, or elsewhere. We have continued to find that instruction given the mothers in their homes is much more effective than that given in other ways.

Very satisfactory coöperation has been developed with the Relief Board Nutrition Division. A coöperative plan was worked out some months ago. As in the case of any coöperative procedure the exact method pursued in the different counties differs. We have found that no hard and fast regulation can be established for application in all counties. This applies not only to the nutrition work but to all phases of the work. The physician's opinion respecting the status of the child's nutrition and needs is secured before any corrective procedure is adopted, and before determining that any child can be released from special nutrition supervision the physician's approval must be sought.

County Committee Members and Volunteers.—There has been a very large increase in the number of participating physicians, committee members, and other volunteers engaged in the work of the Emergency Child Health Committee. The figures are as follows:

EMERGENCY CHILD HEALTH COMMITTEE

Formal Committee	Professions Represented	Volunteers
4448	Total	7450
801	Physicians	2386
138	Dentists	339
243	Nurses	1054
130	Home Economists	118
162	Social Workers	434
2974	Lay People	3118

The success of the work has been due to the unselfish volunteer services of the foregoing groups.

COÖPERATION

State Government.—Your chairman is very happy to report that Governor and Mrs. Earle accepted, respectively, with keen interest the honorary chairmanship and honorary vice-chairmanship of the State Emergency Child Health Committee. The personnel of the state committee was submitted to Governor Earle for his consideration and the entire membership of the committee was approved as submitted. Mrs. Earle very kindly issued a letter to all of the vice-chairmen of our county committees expressing her interest in the work and her appreciation of the splendid services they had rendered.

The Secretary of Health and the Secretary of Welfare as well as the Director of Relief have also accepted membership on the committee and expressed sincere interest in the work.

Our contacts with the Director of Relief are of necessity frequent and very intimate. Your chairman is happy to report that the fullest coöperation has been given and every facility possible has been made available to your committee by the Director of Relief and his assistants. We have continued close coöperation with the Director of Medical Relief and have received from him every assistance possible.

The Medical Profession.—The members of the medical profession have continued to render the same efficient, unselfish service that has marked their activities since the beginning of the work, as is evidenced in the report of progress referred to above.

The Dental Profession.—Similar service has been received from the members of the dental profession in the various counties. Since the public meeting of the State Committee held Dec. 12, 1934, dental corrections have increased from 28 per cent to 32.6 per cent, a total increase of 2820 corrections, with a total number of corrections amounting to 11,011.

Pennsylvania Congress of Parents and Teachers.—It was reported a year ago that this organization was most coöperative and that it had "agreed to use the Emergency Child Health Committee examination forms for their summer round-up examinations." Recognizing the importance of these examinations and the fact that our committees had examined many of those who are entering school this autumn, a coöperative procedure was developed among the Pennsylvania Congress of Parents and Teachers, the State Departments of Health and Public Instruction, The Medical Society of the State of Pennsylvania, and the Emergency Child Health Committee. This is resulting in a highly efficient service and preventing unnecessary duplication of effort. The Superintendent of Public Instruction reported to your committee that the number of children entering school at the beginning of the last school year showed a higher percentage of corrections than in any previous year. This was manifestly due to the enormous number of examinations and corrections made by your committee together with the effect of the coöperation given the Congress of Parents and Teachers.

Other Organizations.—We have continued to receive the efficient support of the various organizations that have been coöperating with us since the beginning of the work which has been referred to in previous reports. The Pennsylvania State Nurses' Association advised your Committee of the adoption at their 1934 meeting of the following policy:

"That the nurses make an effort to have every child go to his family physician for a yearly examination for the welfare of the health and growth of the child.

"In the discussion it was very forcibly brought out that not only families on relief should be encouraged to have this examination made, but every family should be so encouraged. The nurses will make every effort to attain this goal."

This resolution is a very helpful support to our campaign to persuade the mothers of children who can afford to pay to secure periodic health examinations for their children. A further resolution of endorsement was made by the State Dietetic Association, and the Dental Hygienist Association of Pennsylvania approved a resolution of endorsement. The Woman's Auxiliary to The Medical Society of the State of Pennsylvania has been very active in the work of our committees.

FINANCING

State Committee.—The method of financing the State Committee has continued as heretofore, the only salaries paid being for the 5 secretaries in the central office.

County Committees.—The various organizations in the counties, such as the Red Cross, the tuberculosis society, men's service clubs, the Congress of Parents and Teachers, the women's clubs and, in some instances, lay individuals have been most helpful in raising funds within the counties for the correction of defects, the provision of glasses, braces, etc.

NEW MEMBERS

In addition to the representatives of the state government the following new members have been added to the personnel of the State Committee: Dr. Alexander H. Colwell, president-elect of The Medical Society of the State of Pennsylvania; Mr. John A. Phillips, president of the Pennsylvania Federation of Labor, who takes the place of Lieutenant-Governor Thomas Kennedy as the representative of that organization; Mrs. Carroll Miller; and Mrs. Stacey E. Peters, chairman of the Public Welfare Committee of the State Federation of Pennsylvania Women, who took the place of Mrs. John A. Frick, resigned, as the representative of that organization.

PROPAGANDA

A largely attended state-wide public meeting under the auspices of the Governor of Pennsylvania, the president of The Medical Society of the State of Pennsylvania, and the Emergency Child Health Committee was held in the Forum of the Education Building, Harrisburg, on Dec. 12, 1934. This resulted in wide stimulation of interest as practically every county in the state was represented at the meeting. The proceedings, which were intensely interesting, were published in condensed form in the April and May issues of the PENNSYLVANIA MEDICAL JOURNAL. Copies of these transactions have been very extensively requested from all parts of the United States, and a copy was requested by the London County Council, England.

Material prepared for display at our State Society meeting in Wilkes-Barre last October has been extensively used since that meeting. A request has been made for an exhibit booth at the 1935 meeting of the State Society. Among other places, the exhibit was shown at the annual meeting of the American Academy of Pediatrics held in New York, June 7-8, 1935. It was extensively visited by representatives from 24 states and from Ontario, Canada, and carefully studied by many of them, with a view to the possible development of similar procedures in other states. All of the

materials used in our work were on exhibition, and many copies were distributed.

Many addresses have been made in the course of the year by members of the committee, the farthest removed being at the Health Education Conference held in Iowa City during the month of June. The expenses of the speaker were paid by the association sponsoring the conference, and the report was very favorably received.

SECRETARIAL SERVICE

As you will recall, when the Civil Works Administration was established, the Emergency Child Health Committee was asked to create some "white-collar jobs." After conferences with a number of the county chairmen it was decided to request secretarial service for our county committees. When the Civil Works Administration ended its activities that service was taken over by the Works Division of the State Emergency Relief Board. On July 19, 1935, the Works Division was forced to terminate its activities abruptly due to lack of funds. The projects carried on under the Works Division have been transferred to the Federal Works Progress Administration. Your chairman immediately contacted the Relief Administration and the Federal Works Progress Administration. As the result of several conferences the following program has been developed: The Emergency Child Health Committee will continue its relationship with the Emergency Relief Administration, and the Works Division stenog-

raphers will be taken over by the Federal Works Progress Administration. This project will be set up on a state-wide basis and will continue for a period of one year. The completed project was submitted to the Harrisburg office of the Federal Works Progress Administration on July 25 for submission to the Allotment Board in Washington for approval. We have every reason to believe that the project will be approved.

These secretaries have rendered an exceedingly valuable service in most of the counties and have been very helpful to the county chairman. During the enforced lay-off from the middle of February to the middle of March of the present year, the great majority of them volunteered their services without pay.

CONCLUSION

The foregoing report gives but a superficial record of the accomplishments of the Emergency Child Health Committee. As in any great undertaking of this character, the secondary and less spectacular results far outweigh the story of the actual accomplishments. The broad educational value of the procedure to the medical, dental, nursing, nutritional, and allied professions, as well as to the various agencies participating in the work, the laity and, above all, to those who directly benefit by the services rendered, is inestimable. Manifestly this service is greatly needed. We have long been conscious of a great problem and one which, since it has to do with health, should be the problem of the organized medical profession. It has never been as

EMERGENCY CHILD HEALTH COMMITTEE

REPORT TO JULY 1, 1935

Total examinations, all ages 88,104
Examinations in children under
age 6 37,948
Reexaminations 3,454

Total corrections 63,250
Additional corrections 2,662
Grand total, corrections 65,912

Type of defect	Defects found			Defects corrected and under treatment			
	Number of examinations on which percentage is figured*	Number of defects	Percentage	Number of defects on which percentage is figured†	Number corrected as of July, 1935	Percentage	Number of defects corrected as of October, 1934
Not vaccinated	87,550	32,083‡	36.7	26,094	6,403	24.5	4,014
Not having had tetanus antitoxin or toxoid	87,550	58,238‡	66.5	50,964	18,103	35.5	7,773
Eye defects	86,776	5,642	6.5	4,502	1,566	34.8	392
Ear defects	86,776	2,724	3.1	1,879	350	18.6	302
Nasal obstructions	86,776	6,952	8.0	6,107	1,318	21.6	1,273
Diseased tonsils	87,134	30,736	35.3	27,091	7,490	27.7	2,192
Dental caries	87,134	36,842	42.3	33,839	11,011	32.6	7,586
Enlarged cervical glands ..	86,776	18,571	21.4	13,260	1,244	9.4	551
Thyroid gland enlargement	87,134	2,388	2.7	1,824	648	35.5	498
Lung affections	87,134	2,234	2.6	1,691	667	39.4	619
Cardiac defects	87,134	2,232	2.6	1,550	573	37.0	459
Needing circumcision	85,352	5,496	6.4	4,636	561	12.1	217
Veneral diseases	85,352	247	0.3	246	117	47.6	.....
Malnutrition	87,550	25,385§	29.0	23,005	10,335	44.9	6,423
Postural or orthopedic defects	87,134	5,948	6.8	4,902	1,096	22.4	302
Deficiency diseases	85,352	5,137	6.0	4,097	1,768	43.2	.....

* In each case the percentage is figured on a different total of examinations because of the difficulty of securing complete and consistent reports from the counties.

† Of this number of defects, 28,939 occurred in children under age 6—76.3%.

‡ Of this number of defects, 29,597 occurred in children under age 6—78.0%.

§ These totals do not include the defects reported by counties which are known to be securing corrections but which have not reported such corrections. They do include the defects found in counties so recently organized that the correction of defects has not yet been started.

§ Of this number of defects, 9707 occurred in children under age 6—25.6%.

Additional immunization in 6 counties—2297 (Bradford, Carbon, Indiana, Montour, Perry, and Washington).

Nutrition instruction to mothers—43,580 in 39 counties.

fully revealed, however, as in the work of the Emergency Child Health Committee. Your chairman is hopeful that The Medical Society of the State of Pennsylvania may give serious consideration to the appointment of a committee to study searchingly the activities and accomplishments of the Emergency Child Health Committee and endeavor to work out a procedure by which the protection of the health of children of the indigent can be effectively accomplished in the years to come. Indeed it is equally important that, as physicians, we should endeavor to impress upon those who are able to pay for protective services the danger of neglected, innumerable handicaps, which are probably almost as prevalent among the children of the families economically more fortunate as among those of the indigent groups.

Regarding the work of our committee, Mr. C. W. Areson, assistant executive director of the Child Welfare League of America, speaking before the National Conference on Social Work in Montreal, recently stated:

"Many corrections were made of defective health conditions: Teeth, tonsils, eyes; much instruction was given families on the feeding and care of children. A mass program undoubtedly brought relief, but it went beyond relief and relief conditions into some individualization of health."

Respectfully submitted,

S. MCC. HAMILL, *Chairman.*

COMMISSION ON MATERNAL WELFARE

To the President and House of Delegates:

The Commission on Maternal Welfare of The Medical Society of the State of Pennsylvania was created by the House of Delegates, in 1934, appointed by the president, and began to function last October. In this report we shall review what has been accomplished and place before you hopes of the commission for the coming society year.

The commission, formed for the main purpose of conducting a state-wide survey of maternal mortality, has proceeded in an aggressive manner focusing our attack on the reduction of maternal mortality and hoping that we as practicing physicians can be relieved of the charge of being disinterested, or at least of directing no efforts toward making childbirth safer for the women of Pennsylvania.

It was decided to devote the first year to informing the medical profession as to the actual status of affairs by planning for presentations and discussions before as many county and district society meetings as possible. The commission is deeply grateful for the many opportunities given.

Fifty-two of the component societies have responded to our urge to name a county committee on maternal welfare. Upon these local appointees first devolves the duty of conducting the interrogation regarding each maternal death occurring in their own particular county, and it is most gratifying to report that the majority of such committees are functioning in a most satisfactory manner. An attempt was made to cover the counties having a very small medical society membership by having one of their members added to the personnel of the committee in a larger neighboring county.

The form adopted for use in this survey of maternal deaths is modified to suit our purpose from the form used in the earlier Philadelphia maternal mortality sur-

vey. These forms were distributed to the various (11) members of our State Commission, whose duty it was to furnish each neighboring county chairman with a supply of such and with instruction sheets so that they could carry on their interviews. If any counties were missed inadvertently, we trust that this report may lead to readers of this review writing the chairman to forward same.

It has been most encouraging to have the various councilors allot a part of their annual district meeting program to a presentation of this problem. The commission has accepted all such invitations and is most grateful for this coöperation.

There are 2 avenues of approach to the solution of the problem of reducing maternal mortality. One is to enlighten the members of the medical profession as to their full responsibilities; the other is to present the facts to the laity in such a way that they may appreciate the need for adequate prenatal care and also be advised as to the terrible death rate from abortions and regarding the danger inherent in so-called painless childbirth. We have carried the first method of attack directly to the profession, and it will be our future policy to maintain the momentum thus far gained.

✎ All surveys show that the adoption of all recommended prenatal precautions and the application of all proven measures would result in lowering the maternal death rate to one-third of its existing rate.

Childbirth will never be entirely devoid of danger, but the many unnecessary deaths can be curtailed if we spread and use the knowledge we already have.

When it is fully appreciated by the profession that approximately 40 per cent of maternal deaths are due to septicemia, 25 per cent to the toxemias, and the remaining 35 per cent to the various accidents of pregnancy; when the public realize that abortions are responsible for one-fourth of all so-called maternal deaths, then shall we reap large results from our efforts invested in educating the public.

The medical profession must constantly warn the public not to think so lightly of abortions, the majority of which are not the criminally induced but self-induced by married women alarmed by the present general economic conditions.

The profession cannot be held entirely responsible for the toxemic catastrophes of pregnancy since the public does not appreciate the value of adequate prenatal care. They do not, with all our previous talking and preaching, realize the absolute necessity of it. To improve this situation will be part of the commission's program for next year.

If deaths from abortion can be reduced to at least one-half their present number and toxemia deaths to one-half their present toll, we will happily eliminate almost 25 per cent of the present mortality figure. Is not that something to work for? In 1934, for instance, there were 916 maternal deaths in Pennsylvania. If we could have reduced same 25 per cent by reducing abortions one-half and toxemia one-half, the resultant figure—687—might not be so appalling.

Twenty-two deaths following cesarean sections, mostly from peritonitis, is the number reported in Pennsylvania in the first 4 months of 1935. Emergency cesarean operations still exceed in number planned or elective cesareans, which are much safer.

We addressed a questionnaire to 167 hospitals scattered throughout the state, exclusive of those of Philadelphia and Pittsburgh. There were 89 replies to this questionnaire, a perusal of which shows certain weak-

nesses which are correctible, the correction of which should result in considerable improvement in maternal mortality statistics.

Of these, 80 hospitals maintain separate obstetric departments, either a floor or a building or division devoted to obstetric service alone; there were only 4 institutions reporting the use of the general operating room also as the delivery room. There were 12 hospitals accepting obstetric patients, with no staff member directly responsible for the conduct of obstetric service.

Sixty-three institutions reported their obstetric and gynecologic services as separate units, and in 48 cases the obstetric chief was on continuous service; 47 reported having no intern service.

In 43 hospitals the so-called courtesy or affiliate staff practitioners were under no hospital staff guidance or restriction as to their obstetric patients, and only 12 hospitals reported no such courtesy staff.

Regarding control over operative procedures, such as forceps deliveries, versions, and cesarean sections, 60 per cent of the hospitals replying referred to various grades of control by consultation or assistance given by a recognized or acceptable obstetrician. Forty per cent of the replies showed no control other than a practice of "asking for help when in trouble." There were 33 hospitals which reported no prenatal clinics.

In reply to the question, "What responsible factors do you consider as outstanding in your community in maintaining the present maternal death rate?" we find such answers as the following: Forty-six put the blame on the lack of appreciation by the public of the value of seeking early and consistent prenatal advice; 20 stated that operative obstetrics by insufficiently trained physicians was the responsible factor; 6 attributed it to the demand by prospective mothers for easy, short, painless labor; and 6 others made the assertion that delay in transferring complicated cases to the hospital was the largest contributing factor. In further studying the replies it was surprising to find that 24 of the 89 hospitals never had made any review of the hospital's obstetric service or their results attained. Are there not then some correctible situations in the above notations?

At the time of forwarding this report to the secretary's office, the commission has received notification from the State Bureau of Vital Statistics of deaths for the first 4 months of the present year, totaling 316 maternal deaths. It is estimated that with this prevailing rate there will be a slight increase over the 1934 figures (916), due to the fact that there has been a gradual increase in the number of births. For the first 4 months of 1935 there have been 54,634 total births with 316 maternal deaths, a rate of 5.7 per 1000 total births. Abortion caused the death of 78 of these 316 prospective mothers. A statistical summary of the maternal deaths for 1934 and the first 4 months of 1935 appears in Table I.

TABLE I
MATERNAL DEATHS IN PENNSYLVANIA

	1935				1934	
	Jan	Feb.	Mar.	Apr.	First third	Entire year
Number of deaths	81	72	89	74	316	916
Death rate per 1000 total births	5.8	5.6	6.1	5.4	5.7	5.5

The chief causes of maternal deaths for the first 4 months of 1935 are indicated in Table II.

TABLE II
CHIEF CAUSES OF MATERNAL DEATHS IN FIRST 4 MONTHS, 1935

	Jan.	Feb.	March	April
UNDER 28 weeks gestation	29 (35.8%)	18 (25%)	22 (24.7%)	24 (31%)
Abortions	26 (32.1%)	13 (18%)	18 (20.2%)	21 (27%)
Ectopic pregnancy ..	3 (3.7%)	5 (6.8%)	4 (4.5%)	3 (4%)
OVER 28 weeks gestation	52	54	67	51
Sepsis	12 (23%)	14 (25%)	24 (35.8%)	12 (23.5%)
Albuminuria, eclampsia, toxemia	8 (15.4%)	13 (24%)	12 (18%)	11 (21.5%)
Cesarean	11 (21.1%)	7 (13%)	3	1
Placenta previa	5 (9.6%)	1	6 (8.9%)	1
Postpartum hemorrhage	6 (7.7%)	5 (9.3%)	6 (8.9%)	3
Embolus (pulmonary, coronary) ..	2	5 (9.3%)	6 (8.9%)	10 (19.6%)
Heart conditions ..	3	3	4	4 (7.8%)

A close study of Table II should bring to the forefront some correctible conditions. The above compilation has been made directly from the death certificates as filed in the State Bureau of Vital Statistics, no attempt being made to fix responsibility. The full year's survey will evaluate more thoroughly the various factors involved, and it is certain to bring some enlightening disclosures to the attention of the profession.

Your commission has aligned itself with the American Committee on Maternal Welfare, Inc., which is comprised of those organizations striving for the improvement of American obstetrics to the end that childbirth will be made safer for the motherhood of America. Our set-up has been presented to the above organization, and many inquiries have been received from various sections of the country as to our program.

There will be a booth in the scientific exhibit at the annual meeting in Harrisburg dealing with maternal mortality in our own state, to which we invite all interested members.

What should be the future policy of the State Society's Commission on Maternal Welfare?

1. Continued efforts should be expended in informing the profession as to their responsibilities in lowering maternal mortality figures. It is recommended that county societies devote one or more programs to obstetrics during the next 12 months. Our commission and the postgraduate study committee will gladly collaborate with the program committee of any component society. Such committee may make its own selection from the helpful list of subjects, motion pictures, or teachers available under our respective state society committees.

2. A continuance of the maternal death survey started this year.

3. A wide and concerted movement, by all accepted means of transmissal, to advise the lay public thoroughly and properly in an effort to enlist aid.

4. Preparation of pamphlets to be made available and to be distributed among all physicians. They should be short, concise, and easily read, and should be written by and published in the name of our State Medical Society, through its Commission on Maternal Welfare, and the Department of Health of the Commonwealth of Pennsylvania. It is certain that Dr. Edith MacBride-Dexter, Secretary of Health, will lend her support to such an undertaking, as she has been more than coöperative to date in our survey of maternal mortality, for which the commission hereby expresses appreciation.

The chairman desires to express his appreciation of

the coöperative endeavors of members of the commission and county medical society representatives who have been helpful; also to voice gratitude to Dr. Emlyn Jones, director of the Bureau of Vital Statistics of Pennsylvania, whose spirit of coöperation has been unparalleled; and to express thanks for the untiring, invaluable, stimulating thoughts, deeds, and helpful suggestions of our State Society Secretary, who has been of inestimable service to the commission.

This report has possibly been unnecessarily long drawn out, but the commission has broken new ground, and we have attempted to depict the weak points and the places in which we may gain ground by united efforts.

Respectfully submitted,

JAMES S. TAYLOR, *Chairman*,
WM. L. BENZ,
JAMES H. HOWARD,
OSCAR J. KLEVAN,
WALTER J. LARKIN,
JOHN B. NUTT,
SAMUEL A. RUBEN,
CHARLES G. STRICKLAND,
JACOB WALKER,
PHILIP F. WILLIAMS.

COMMITTEE ON PHYSICAL THERAPY

To the President and House of Delegates:

At the 1934 meeting of the State Society held in Wilkes-Barre, the House of Delegates approved the creation of a Committee on Physical Therapy, and its personnel was selected by President Behrend.

The committee was appointed with the object of extending information on physical therapy to practitioners throughout the state through the medium of the various county medical societies. It was further planned that the committee should coöperate with the Committee on Medical Education of the Council on Physical Therapy of the American Medical Association.

As the first step in the work the committee conducted an educational exhibit for the Council on Physical Therapy at the Wilkes-Barre meeting. This exhibit was well attended and many favorable comments upon its educational value were heard. The second step in the program consisted of sending a letter to the secretary of each county medical society within the state informing him that the committee had been appointed and that it was prepared to send speakers to talk upon the subject "Physical Therapy in Relation to General Practice."

Following the sending of these letters lectures were arranged as follows:

(1) A group of lectures on various phases of physical therapy was given before the Philadelphia County Medical Society, which has its own special committee on physical therapy;

(2) On Dec. 18, 1934, a lecture was given before the Washington County Medical Society;

(3) On Apr. 16, 1935, before the Luzerne County Medical Society;

(4) On Apr. 17, before the York County Medical Society;

(5) On Apr. 19, before the Tioga County Medical Society;

(6) On May 15, before the Lackawanna County Medical Society;

(7) On May 28, before the Blair County Medical society.

(8) Another lecture is scheduled to be given in the

autumn before the McKean County Medical Society at Bradford;

(9) Additional lectures are to be scheduled during the ensuing winter for other county societies.

The chairman of the committee contacted the chairman of the State Society Committee on Postgraduate Education and submitted to him a list of qualified speakers on the subject of physical therapy through the medium of these seminars.

Many of the officials of the county medical societies have expressed themselves as being well satisfied with the character of the lectures so far presented. In all of these the relationship between physical therapy and general medical practice has been stressed, and every effort has been made to present the subject in a conservative manner.

The present chairman of the committee regrets that he must submit his resignation at this time, owing to the fact that he is leaving the state to continue his work in Rochester, Minn. This, of course, obviates the possibility of his continuing the work in behalf of The Medical Society of the State of Pennsylvania.

Respectfully submitted,

FRANK H. KRUSEN, *Chairman*,
FRANK L. FOLLWEILER,
RALPH H. HENRY,
G. H. MCKINSTRY,
JOSEPH SCATTERGOOD, Jr.

COMMITTEE ON POSTGRADUATE EDUCATION

To the President and House of Delegates:

Your committee is happy to report that the Postgraduate Educational Plan employing teachers from medical schools in our own state has been instituted by many of the county societies throughout the state and 592 physicians have profited by this form of teaching. The following counties have completed courses of 6 or more seminars, the figures showing the number of physicians that participated:

Lawrence	30	Erie	72
Butler	33	Lackawanna (Car-	
Mercer	27	bondale)	25
York-Adams	74	Bradford	
Venango	36	Potter	
Cambria	40	Tioga	
Somerset	31	Sullivan	44
Clearfield-Jefferson .	45	Wyoming	
Lancaster	45	Susquehanna	
Schuylkill	44		
Lycoming	46	Total	592

Several comments from the secretaries of the various county societies engaged in this work are pertinent:

The Schuylkill County Society completed its second course on May 9 with 44 members. The secretary reports the work this year to have been a big success.

The Lycoming County Society completed its second course on May 15 with 46 members, several members from Union County joining Lycoming. The members were all enthusiastic about the course just finished.

The Erie County Society completed a course May 15 with 72 members enrolled. The secretary reports that the course was highly successful and considered it an educational and informative achievement.

The Somerset County Society completed a course on May 15. There were 31 members in the course in a society composed of 39 members.

The Cambria County Society enrolled 40 members, including some members from Indiana County. The course was completed May 23 and the secretary reports the work was a complete success.

The Clearfield and Jefferson County Societies with 45 members completed a course July 18.

The Lancaster County Society completed a course with 45 members enrolled.

The Venango County Society completed a course May 17 with 36 members.

The York and Adams County Societies with 74 members completed a course March 20. At the last meeting the class unanimously voted for continuation of the seminars next year.

No deficits have been reported to the chairman of the committee by any of the secretaries; in fact, several secretaries report a balance in the treasury after having paid all expenses.

The amounts of the balances vary from a few dollars to a surplus of \$200 in the treasury of the Lancaster County Society. The class at Lancaster will give 4 additional seminars in October with this balance.

Bradford, Potter, Tioga, Sullivan, Wyoming, and Susquehanna county societies had a balance of \$110 in the treasury after completing their course.

Two courses are about to start in Northampton County—one class to hold its seminars at the Easton Hospital, in Easton, and the other at St. Luke's Hospital, in Bethlehem. The secretary assures the committee that from 65 to 70 members are expected to enroll.

Arrangements for a class are already being made in Berks County. Dr. Rentschler, secretary of the graduate study class, informs the committee that organization plans are being carried out enthusiastically and that a large enrollment is expected.

The Warren County Society has recently formed a class of 25 members. It is estimated that at least 150 additional physicians will be enrolled by the first of September, so that your committee is able to report that approximately 750 physicians will have profited by this work at the close of the fiscal year, October 1.

The committee further feels that the work has proven to be practical, educational, easily adaptable, and self-supporting.

The committee desires again to express its appreciation to the teachers of the different medical schools of the state for their enthusiastic and unselfish support of this plan.

Respectfully submitted,

DONALD GUTHRIE, *Chairman*,
JOHN ATLEE, JR.,
NATHAN BLUMBERG,
NORBERT D. GANNON,
W. FRANK GEMMILL,
WESLEY F. KUNKLE,
FREDERICK B. UTLEY.

ADVISORY COMMITTEE TO WOMAN'S AUXILIARY

To the President and House of Delegates:

The Advisory Committee to the Woman's Auxiliary has not been working overtime. The only matter referred to it was an inquiry about a mortgage investment to which the chairman assumed the responsibility

of replying. There has been no call for a meeting of the whole committee.

Respectfully submitted,

WILLIAM E. PARKE, *Chairman*,
WALTER S. BRENHOLTZ,
LEWIS T. BUCKMAN,
ARTHUR H. GROSS.

REPORTS OF DELEGATES TO OTHER SOCIETIES

REPORT OF DELEGATE TO PENNSYLVANIA PHARMACEUTICAL ASSOCIATION

To the President and House of Delegates:

I beg to report that on June 18 I attended the fifty-eighth annual meeting of the Pennsylvania Pharmaceutical Association held in Pittsburgh. It was my privilege not only to convey to the officers and members assembled the felicitations and best wishes of the officers and members of The Medical Society of the State of Pennsylvania, but to refer very briefly to the common interests of our organizations in the defense from threatening legislative attacks on existing American standards of private sickness service. It is a pleasure for your delegate to report that he heard many evidences of coöperation in problems common to our professions, and that he was accorded every courtesy.

Respectfully submitted,

GEORGE R. HARRIS.

REPORT OF DELEGATES TO AMERICAN MEDICAL ASSOCIATION

To the President and House of Delegates:

At the annual session of the American Medical Association held in Atlantic City, N. J., June 10-15, 1935, The Medical Society of the State of Pennsylvania was represented in the House of Delegates by its complete delegation of the following duly elected delegates and alternates:

Dr. Howard C. Frontz, Huntingdon; Dr. Wm. H. Mayer, Pittsburgh; Dr. J. Newton Hunsberger, Norristown; Dr. J. Allen Jackson, Danville; Dr. Charles G. Strickland, Erie; Dr. Frank P. Lytle, Birdsboro; Dr. Walter F. Donaldson, Pittsburgh; Dr. George L. Laverty, Harrisburg; Dr. Samuel P. Mengel, Wilkes-Barre; Dr. A. C. Morgan, Philadelphia; and Dr. Herbert B. Gibby, Wilkes-Barre (alternate-designate for 1935) serving for Dr. J. Norman Henry, Philadelphia, who resigned in December, 1934.

The following members of our delegation were appointed and served on reference committees of the House: Dr. Hunsberger on the Reference Committee on Amendments to Constitution and By-laws; Dr. Mengel on the Reference Committee on Legislation and Public Relations; and Dr. Donaldson on the Reference Committee on Medical Education.

The delegation elected Dr. Mayer chairman, and Dr. Morgan secretary.

The total registration at the Atlantic City session was 8469 Fellows, 2069 of whom were from Pennsylvania. It is interesting to note that during the period, March 1 to June 1, 1935, a total of 260 Fellows from Pennsylvania were added to the Fellowship roster of the American Medical Association.

A resolution was approved calling upon the Council on Medical Education and Hospitals to make member-

ship in county medical societies a prerequisite for qualification as specialists on the lists of the council.

Another resolution requires pathologists and radiologists to become members of their respective county medical societies.

It will be remembered that the House of Delegates had instructed the council to approve for intern training only such hospitals as confined staff membership to membership in county medical societies. The council was directed also to formulate a plan whereby all persons who are associated in the delivery of medical service be investigated at the same time hospitals are investigated, and that approval be based not only on the ethical practices of the institution and its scientific work but of its medical staff as well.

Effort to limit further medical service to physicians was represented by the adoption of a motion calling upon the council to restrict the entrance of optometrists into any phase of medical practice, and by the adoption of a resolution from the Section on Ophthalmology de-

claring it to be unethical for any member to give lectures or courses of instruction, or to consult with any who are not associated with actual medical service.

The House of Delegates unanimously endorsed the several recommendations in the address of retiring President Walter L. Bierring (See *Journal A. M. A.*, June 22, p. 2263) to but one of which we herewith call attention: "The responsibility for carrying out any public health program is that of the organized medical profession, the only group qualified by training and experience to administer such a service so as to safeguard fully the public interests."

Other subjects developed at Atlantic City of more than passing interest have been discussed or referred to in very recent issues of the PENNSYLVANIA MEDICAL JOURNAL, as well as in the report of the Committee on Society Comity and Policy.

Respectfully submitted,

W. H. MAYER, *Chairman*,

A. C. MORGAN, *Secretary*.

OFFICERS' DEPARTMENT

WALTER F. DONALDSON, M.D., *Secretary*, 8104 Jenkins Arcade, Pittsburgh, Pa.

ANNUAL REPORTS IN THIS ISSUE

In this issue of the JOURNAL many officers and standing and special committees of our society are making a report of their stewardship to our president and 1935 House of Delegates. These reports, thus addressed to the representatives mentioned, are of course intended for the information and scrutiny of the entire membership of the State Society. They are published in advance of the first meeting of the House of Delegates in order that members throughout the state may by direct communication with representatives of the State Society, or with the delegates chosen to represent each county society, express approval or disapproval of the activities discussed in the various reports.

The stewardship we have referred to varies from that of the collection and disposal of tens of thousands of dollars to attempts to minimize suffering and death from numerous physical and mental injuries and illnesses.

The careful reader of all reports will learn that the stewards responsible for most of the councilor districts into which our State Society is divided boast of the endeavors of the members of their various constituencies to keep abreast of medical progress—scientific, social, and economic; also that those who are held responsible for the education and the protection of the public against preventable diseases and conditions, as well as against inimical health or social legislation, have accomplished much of that which they

undertook at the instigation of the predecessors of the 1935 House of Delegates.

In any event, the careful reader will find that for officers' travel and the activities of the various committees approximately \$17,000 was expended during the past year in endeavors for which the State Society 20 years ago spent less than \$1000 annually. The value of this investment can be appreciated only by those who understand the unity of purpose which exists among the more than 8000 society members of to-day, in comparison with that which existed among the 6500 members of 1915.

REDUCED RAILROAD FARE FROM HARRISBURG

Arrangements have been made again this year to attempt to procure reduced fare on the Certificate Plan for our members and members of their families traveling by rail to the annual session of our State Society in Harrisburg.

It is to be regretted that in spite of numerous previous attempts to effect this saving the plan has been successful only once—at the 1932 session in Pittsburgh. This is principally due to the fact that all members traveling by rail do not ask for a CERTIFICATE when purchasing their going ticket. Even though you travel but a short distance and the saving to you be slight, be sure to ask for a CERTIFICATE and have same validated, for unless 100 certificates are validated those traveling greater distances, at

greater expense, will not receive any benefit from this plan.

Please read the following rules carefully:

1. Obtain a CERTIFICATE (not a receipt) when purchasing railroad transportation to Harrisburg.

2. Deposit the certificate *at the State Society's Registration Desk in the Farm Show Building when you register.*

3. The representative of the railroad company will be at the Society's registration desk on Tuesday, Wednesday, and Thursday, October 1, 2, 3, for the purpose of validating certificates.

4. Present validated certificate to the ticket agent when purchasing transportation to the *original starting point.*

A COUNTY MEDICAL SOCIETY ACCOMPLISHMENT

For many years the officers and committeemen of the county medical societies in Pennsylvania have had placed before them the advice that the county medical society should have representation and influence in the development and maintenance of all health and sickness services in the county. However, few of our component societies have accomplished as much along this line throughout recent years as has the Cambria County Medical Society, whose most recent achievement is the assuming of the complete operation of the Municipal Hospital of the City of Johnstown, of which the board of directors and visiting staff are all members of the county medical society.

The hospital with a capacity of 75 beds is said to be the only one in the country operated by a county medical society and financed by the municipal government.

As is so often the case, this accomplishment is credited by his fellow practitioners to the foresight and energy of one member. In this instance commendation of the responsible member is set forth in enduring bronze, in a tablet presented to him, bearing the following inscription: "This tablet presented by the Board of Directors and the Staff to Henry W. Salus, M.D., in recognition of his untiring efforts in the creation of the new Municipal Hospital of the City of Johnstown, Pa.—Dedicated June 14, 1935," followed by the names of 18 members of the Cambria County Medical Society serving as members of the Board of Directors or the visiting staff of the hospital; also the name of the superintendent and of the members of the City Council and the engineers.

The project thus to remodel the Municipal Hospital was in charge of LWD engineers.

MATCHING FEDERAL DOLLARS

In the August JOURNAL we called attention to certain changes threatening private medical practice which are likely to follow closely upon the passage by the United States Congress of the Social Security Act (passed and signed by President Roosevelt on August 14).

Will the State of Pennsylvania agree to match the federal dollars offered annually (we estimate a possible \$360,000 to Pennsylvania) for—

1. Improved maternal and child health, and services for crippled children through coördination with the Children's Bureau of the United States Labor Department (dollar-matching required);

2. The establishment and maintenance of adequate public health service, including the training of personnel for state and local health work, under guidance of the United States Public Health Service (dollar-matching not required)?

If our state agrees to the terms and will match the federal dollars, a total of approximately \$800,000 will become available for the purposes outlined in 1 above; all, however, will be required to be under "administration or supervision of administration by state health agency."

One of the conditions essential to sharing in the federal dollars will be "provision for coöperation with medical, nursing, and welfare groups and organizations." This should be easily arranged by our own State Health Department. However, we at once hesitate over the possibility of disturbance created by this proposed federal-state departmental activity with the state-wide "children's service" being rendered by our own Emergency Child Health Committee.

Physicians and dentists naturally lose their enthusiasm for volunteer work when a governmental agency begins to pay a salary to others (be they ever so few) for rendering similar service among those unable to pay.

Surely, the very limited federal funds offered annually to Pennsylvania to set up a children's service in the State Health Department would not go far in replacing the diagnostic and corrective service now being given to tens of thousands of worthy poor children by the private physicians, dentists, and nurses serving voluntarily with the above committees.

While the Children's Bureau representatives are on record as desiring to coöperate with the medical profession in making and carrying out

plans, we naturally fear more disturbance of existing family physician private patient long-term relationships from the development in Pennsylvania of a children's health service under guidance of a bureau of the United States Department of Labor than we do from the extension of the other proposed health services to be planned or approved by the United States Public Health Service. Would that the latter bureau directed or sponsored all forms of federal human health service!

Those who will represent the more than 8000 members of The Medical Society of the State of Pennsylvania in conferences with the representatives of our State Health Department will be greatly aided if many members of the society, especially the officers of the county medical societies, will study the proposal diligently.

THE HYPNOTIC DRUG LAW

As a result of action by the 1934 House of Delegates of The Medical Society of the State of Pennsylvania, the 1935 Pennsylvania Legislature was influenced to enact a law "to regulate the sale of certain hypnotic, analgesic, and body-weight reduction drugs in the interest of public health."

The law, as enacted, was published in the August PENNSYLVANIA MEDICAL JOURNAL, and objections on the part of physicians to the following of its regulatory features have been received:

"That they (duly licensed physician, dentist, or veterinarian) (a) keep a record of the amount of such drugs purchased and a dispensing record showing the date, name of, the quantity of the drugs dispensed, and the name and address of the patient. No physician, dentist, or veterinarian shall (b) dispense any such drug without affixing to the container in which the drug is sold or dispensed a label bearing the name and address of the dispenser, the date dispensed, the name and address of the patient, and the directions for the use of the drug by the patient."

In response to such criticism Dr. C. L. Palmer, who was chairman of the Public Health Legislative Conference of Pennsylvania, and in frequent consultation with Mr. J. B. Pilchard, representing the Pennsylvania Pharmaceutical Association on the Conference, states:

(1) That all legislation adopted in the interest of and for the protection of the public requires some regulatory clause;

(2) That physicians writing prescriptions for such drugs will be in no way affected by the act; and

(3) That physicians who dispense these drugs—in fairness to pharmacists no longer permitted to sell them without a prescription—should not

object to keeping the simple record, required by law, of their purchases and disposition of pharmaceutical preparations containing hypnotic, analgesic, and body-weight reducing drugs.

The ordinary physician's dispensing envelope will serve admirably in the observance of (b) above.

Detailed rules with list of drugs will be published in the JOURNAL as soon as possible after being issued by the Pennsylvania Bureau of Narcotic Control.

JUNE EMERGENCY MEDICAL RELIEF CONFERENCE

The Rules and Regulations Governing Medical Care provided in the home for recipients of unemployment relief, effective Aug. 11, 1935, issued Aug. 20 by the State Emergency Relief Board of the Commonwealth of Pennsylvania, are published in this issue of the JOURNAL (see page 1062).

Continuing comments and information appearing in the July JOURNAL relative to the conference held in Harrisburg, on June 27, between representatives of the State Emergency Relief Board and representatives of the healing arts professions participating in the emergency medical relief service, we publish herewith the reply received from the office of Federal Director Harry L. Hopkins, of Washington, D. C., in response to the resolution forwarded to him, which was also published in the July JOURNAL:

JULY 5, 1935.

DR. F. F. BORZELL, *Secretary*,
Emergency Medical Relief Conference,
Harrisburg, Pa.

Dear Doctor Borzell:

Receipt is acknowledged of your letter of June 27, 1935, addressed to Mr. Hopkins, containing resolutions adopted unanimously by representatives of the medical, dental, pharmaceutical, nursing, and osteopathic professions at their recent meeting in Harrisburg.

What the future scope and character of the medical care program for persons on relief will be have not yet been determined, nor has it been decided whether or not federal participation in the rendering of medical care to the destitute will be continued under the new work relief program.

The matter is now before Mr. Hopkins for consideration, and it is our understanding that the final decision as to whether or not medical relief will be continued will rest with the President.

Very truly yours,
(signed) M. V. ZIEGLER,
Assistant Medical Director.

We also publish herewith the report received July 31 from the committee of 3 chosen by the physicians' group on June 27 to meet the next

day with the SERB committee and committees from the other healing arts groups.

That emergency medical relief service has been a live subject for discussion since the 1934 meeting of our House of Delegates is evidenced by reference to the problem in the following reports addressed to the 1935 House of Delegates appearing in this issue of the JOURNAL: Medical Advisory Committee to the SERB, chairman of the Board of Trustees, Committee on Public Relations, Committee on Medical Economics, and reports of various Councilors.

As pointed out in the August JOURNAL the average total paid to participating physicians during the months of March, April, and May, 1935, was \$288,526 per month. In June they received approximately \$212,000, and it is anticipated that by August this monthly amount will have been reduced to about \$125,000.

As may be implied from the letter from the office of Federal Director Harry L. Hopkins, printed above, the effect on the number of people eligible to receive emergency medical relief service after November first, either on direct relief or work relief, is distressingly conjectural.

In any event, probably no more important subject will come before the House of Delegates in Harrisburg during the week of September 30 than modifications of the relation of The Medical Society of the State of Pennsylvania to emergency medical relief service in the state as sanctioned by the preceding House of Delegates.

MEETING OF THE SUBCOMMITTEES OF THE DELEGATIONS OF THE VARIOUS HEALING ARTS GROUPS WITH THE PENNSYLVANIA EMERGENCY RELIEF ADMINISTRATIVE OFFICERS ON JUNE 28, 1935

On the morning of June 28, 1935, the subcommittees of the delegations from the healing arts groups met with the State Emergency Relief Administrative officers under the chairmanship of Dr. Harold A. Miller. At this meeting the resolutions adopted by the medical group, which were reported in the July issue of THE PENNSYLVANIA MEDICAL JOURNAL, pages 822 and 823, were acted upon as follows:

Resolution, insisting on preserving the patient-physician relationship, was adopted (see page 822, July issue).

Resolution, asking that those on work relief be included in the medical relief program, was withdrawn after certain administrative difficulties were pointed out (see page 822, July issue).

The following recommendations from the physicians' group were presented by the subcommittees and were acted upon as follows:

1. That syphilis and gonorrhea in a communicable stage be included in the emergency medical relief program in communities where adequate facilities for their treatment are not provided by hospitals or clinics. This is necessary not only for the cure of the patient, but

for the protection of his family and other intimate contacts.

This was ruled out of order as being considered under federal regulations strictly a problem for the Pennsylvania Department of Health.

2. That tuberculosis be included in the emergency medical relief program in communities where adequate facilities for its treatment in sanitarium or hospital are not available.

The same objection was raised to this recommendation as to the preceding one.

3. That provision be made in the emergency medical relief program for radiologic examination in all cases of joint or bone injury with suspected fracture, both for the benefit of the patient and for the legal protection of the physician.

4. That provision be made in the emergency medical relief program for radiologic examinations, and that consideration be given to the recommendations that will emanate from a conference of representatives of the Pennsylvania Radiologic Society and the Philadelphia Roentgen Ray Society to be held in the near future.

5. That some latitude in the administration of the emergency medical relief rules and regulations, when recommended by the county professional advisory committee, be permitted in counties where a considerable proportion of those receiving the medical order live at points relatively inaccessible to the participating physicians.

These 3 recommendations were adopted.

6. That a new set of Rules and Regulations be adopted by the Pennsylvania State Emergency Relief Board.

This recommendation was adopted after a few minor changes had been made at the request of the osteopathic group.

C. D. AMBROSE, Westmoreland County,
WILLIAM W. LAZARUS, Wyoming County,
MYER SOLIS-COHEN, *Chairman*, Philadelphia County.

IF THREATENED WITH SUIT

If you are threatened with suit for alleged malpractice you should communicate at once with the secretary of your county society, the councilor for your district, or the secretary of the State Society *before consulting an attorney*.

The State Society will not undertake the defense of any member unless his application is made *within 7 days* after summons has been served by the court.

ROENTGEN-RAY RELEASE BLANKS

Members are reminded that the secretary of each county society, as well as the secretary of the State Society, is prepared to forward, in response to requests, a legal release blank to be used when treating fractures, dislocations, or foreign-body cases in which it is impossible for any reason to obtain adequate roentgen-ray pictures to assist in correct diagnosis and treatment. Any time within 2 years of your treatment of such a case you may be sued for alleged mal-

practice. Roentgen-ray records in support of your diagnosis and treatment may prove invaluable.

STRIKING ECHOES FROM ATLANTIC CITY CONVENTION

For the benefit of our readers who did not follow the transactions of the 1935 House of Delegates of the American Medical Association appearing in the June 22 and 29 issues of the *Journal of the American Medical Association*, we herewith epitomize and comment on 3 timely and possibly the most modifying topics concerned with the future of our integral medical organizations.

INTEGRATION

Integration has become a popular word in the discussion of certain legislative problems involving the healing arts professions. Under the process of integration in some counties and states the entire legal profession has been organized by law into a public corporation. The corporation through its representatives grants or refuses licenses to practice in the state and disciplines licensed practitioners for misconduct.

Such a plan has been evolved by law for those practicing dentistry in Oklahoma.

The Board of Trustees of the American Medical Association presented the thought for discussion by the House of Delegates at Atlantic City, and the Reference Committee which considered the suggestion included the following in its report:

"Such a corporation would take over the function of medical examining, licensing, and supervising boards, the board of directors elected by the profession functioning as a board of examination and licensure.

"If there were an integrated medical profession, every licensed practitioner of medicine in the state would be authorized after its initial organization under the statute creating it to vote for the directors of the corporation.

"If the medical profession should be integrated, however, independently of the joint integration with it of osteopaths, chiropractors, naturopaths, and other cultists, the public would lose much of the benefit of integration, for it is those cult groups that particularly need such supervision and control as integration implies. On the other hand, if all practitioners of the healing art were integrated into a single corporation, the votes of the osteopathic, chiropractic, naturopathic, and similar groups would endanger the standards of the medical profession, and conceivably, by a combination of members of those cults, control might pass from the medical profession.

"Being forced into the organization without any desire on his part and without his consent, the poorly qualified, uninterested, and unambitious member might well tend to degrade the standards of the whole group.

"Your committee recommends further that the Board of Trustees make recommendations to the House at its next regular session concerning a policy on the subject."

To one who has observed the almost total lack of expressed interest in medical educational or licensing standards on the part of the public or of civic groups it would apparently be fatal to surrender the defense of such public interests to any but the organized medical profession.

To plan for the transfer by the State of Pennsylvania of its existing bureau in control of medical licensure, etc., to the various healing arts organizations is, we believe, futile if not impossible of accomplishment because unconstitutional; to accomplish less would endanger existing high standards; therefore we assume that such "integration" in Pennsylvania will for many years result only in wishful thinking and academic discussion.

UNITY REESTABLISHED

One of the most heartening announcements made in the House of Delegates of the American Medical Association at Atlantic City was to the effect that a number of conferences between representatives of the American Medical Association and of the American College of Surgeons had resulted in complete agreement that public pronouncements regarding health legislation should, in the future, originate in the parent organization—the American Medical Association.

We are more recently informed that "the American College of Surgeons has written President Roosevelt for the purpose of correcting any impression which might prevail to the effect that the college favors compulsory sickness insurance. The purpose of the statement as set forth was that the attitude of the college toward health legislation which has been proposed may be correctly defined and freed from misinterpretation. It is stated that the College through its Governors, its Regents, or Executive Committee has not at any time given voice to such a sentiment."

This correct information as to the attitude of the College of Surgeons should be emphasized in all circles from the President's cabinet down to those who furnish material for the negative side of high school debates on such rapidly becoming threadbare subjects as—Resolved that

The several states should enact legislation providing for a system of complete medical service available to all citizens at public expense.

The recent action of the College of Surgeons should clarify its position as not favoring sickness insurance, but it does not remove any contrary statement from literature already in the hands of student debaters.

The Committee on Legislative Activities of the American Medical Association in a bulletin issued July 31, 1935, cautions as follows:

"Open campaigns by state or county medical societies would only produce a flood of statements of little value and invite attacks from equally irresponsible sources in opposition.

"The lack of references to organizations opposed to sickness insurance outside of the medical profession, to which inquiring students are directed, is evident on lists supplied to students.

"National figures and national groups would, for obvious reasons, hesitate to make public statements or permit their positions, even though privately known, to be publicly presented in opposition to sickness insurance which is not now before Congress, while other measures in which they might have vital interests are pending or in prospect. A mass of material from unrecognized sources has little value and is often harmful. Satisfactory references from unquestionable sources will, in time, develop.

"Statements should be carefully censored, and especially should an individual, not adequately informed, not be permitted to make statements presenting unsound and ill-advised arguments which would in the end prove embarrassing to him and harmful to the cause.

"Sources of any information must be carefully checked before the material is used. False statements are not desirable and, although not known to be false when presented, are extremely damaging.

"The profession and the sickness-insurance problem must not become involved in partisan politics.

"Good ammunition is desired, and no back fires!

"In view of the ultimate national character of material released by the states, any references forwarded to the Committee on Legislative Activities, with notes as to willingness to respond to inquiries, available printed statements, reprints, *etc.*, will be turned over for review for public instruction purposes and made available for the most effective use. Bibliographies including this material could then be supplied to public agencies from which inquiries are commonly made.

"This effort to crystallize lay thought around the counsel of informed leaders marks another step in the program of direct approach to the lay public in opposition to legislation harmful to it."

IMPROVED METHODS OF ADMINISTERING THE CODE OF ETHICS

"It is apparent that the very democracy of our existing organizational set-up may become involved unless component and constituent societies rapidly develop to meet adequately local situations arising from the professional activities of a small but thoughtless or indifferent proportion of members.

"If county medical societies will not exercise their prerogatives or discharge their duties in this connection, will it become advisable to develop a central disciplinary body in the state society or the American Medical Association to function in this capacity?"

In the above words the Judicial Council of the American Medical Association in its report to the House of Delegates, at Atlantic City, laid the groundwork for its proposal to modify materially the present medical organizational set-up for instigating charges against offenders against the Code of Ethics of the American Medical Association.

It is apparent that not a few county medical societies that resent centralization of control along

many lines would now welcome the transfer, to a higher authority, of the at times disagreeable responsibility of disciplining their own members for unethical conduct, more especially indulgence in certain forms of contract practice. This inconsistency was surprisingly demonstrated by the reaction of the A. M. A. House of Delegates to the report from the Judicial Council.

The council declared that "public confidence in our avowed declarations for medical control over things medical cannot be successfully cultivated or maintained unless we exclude or remove from the ranks of our organized profession those who ignore our ethical code, especially as it applies to the true professional spirit in our relations with each and every patient."

The council further stated, "Numerous are the complaints against the situation cited, and many are the demands that medical organization correct for its members that which medical organization has pronounced unethical and harmful, and which the members cannot correct for themselves. Last year (1934) the House of Delegates amended its Principles of Medical Ethics so clearly that there can be no misunderstanding of the conditions mentioned; but the present method of procedure of preferring charges makes the pronouncement ineffective."

The council in its report assumed that "it might be advisable to extend the origination of charges in some situations manifestly too great for the county society to handle to the state association, and possibly, in *rare instances*, to the national organization." The report continues, "There *rarely* would be infractions of such magnitude that the national association and *seldom* that the state associations should be the originator of any action toward discipline." (*Italics ours.*)

In spite of the optimism of the council regarding the *rarity* of "instances," the Reference Committee of the House of Delegates promptly deemed "it advisable," as suggested by the council, "to extend the origination of charges in certain situations manifestly too great for county societies to handle to the state association, and possibly, in rare instances, to the national organization"; and agreed with the council that "when the House of Delegates sees fit to extend such jurisdiction in matters of discipline, the council should have the duties and powers then enjoined on it, but should not at any time be expected to function in an *ex parte* capacity."

That benefits will develop slowly about the nuclear suggestion offered by the Judicial Council is predicted in its further proposal for closer coordination between the Judicial Council and the Council on Medical Education and Hospitals. Declaring that "medical ethics follows every

member of the American Medical Association, whether in a hospital, a university, a clinic, or not," and that "while the member in such institution is subject to the ethics of the profession, the institution itself as an entity is not," the report of the Judicial Council pointed out that "through the Council on Medical Education and Hospitals sufficient oversight, persuasion and, if needed, pressure can be brought to accomplish what the doctors in such institutions, as individuals, cannot. With such coöperation between the 2 councils and such enforcing organization as has been suggested, many harmful and obnoxious practices now existing would cease, and others not now presenting any large problem would be prevented."

The Reference Committee of the A. M. A. House of Delegates after recommending "that the Council on Medical Education and Hospitals, together with the Judicial Council, formulate a plan whereby all those associated in the delivery of medical service be included in the investigation of hospitals for classification (for intern service), and that approval be based in the future on the ethical practices of the institution as well as on its scientific work," requested "the Judicial Council to submit amendments to the Constitution and By-Laws of the Association as are necessary to secure the purposes sought."

The Judicial Council of the American Medical Association qualified its suggestions "to extend the origination of charges in some situations manifestly too great for the county society to handle," by stating, "The council wishes distinctly to be understood that it is suggesting no infringement on or release from responsibilities now residing in the component county medical societies"; rather it recommended "prompt and firm action by all component societies in enforcement of the provisions of the Principles of Medical Ethics that will support the growth of public confidence in the sincerity of our avowed ethical purposes."

As the subject now stands, the responsibility for the correction of the unethical practices of individual members of county medical societies remains a problem for each society adopting the model by-laws for county societies as approved by our House of Delegates at Pittsburgh in 1932. The only change offered in the model by-laws since its adoption was by the 1934 House of Delegates at Wilkes-Barre, adding to the duties of the county society board of censors that of *taking the initiative* in examining "contractural medical service agreements entered into or about to be entered into by its (county society) members and to suppress unethical practice." (See 1934 report of Committee on Medical Economics.)

NATION-WIDE DEBATES 1935-1936

August 22, 1935.

Walter F. Donaldson, M.D., Secretary,
Medical Society of the State of Pennsylvania,
Pittsburgh, Pa.

DEAR DR. DONALDSON:

The National University Extension Association Debate Committee has announced the subject for debate for 1935-1936. The proposition is "Resolved: That the several states should enact legislation providing for a system of complete medical service available to all citizens at public expense."

The choosing of this proposition by the National Committee means that it will be debated by more than 100,000 students in high schools, colleges, and universities throughout the United States. The debates will be heard by large and small audiences, in auditoriums and over the radio. It is anticipated that a considerable amount of public interest will be stimulated.

In order to provide students with adequate materials for the study of the proposition, the committee is devoting the eighth annual Debate Handbook to the field of Medical Economics. The editor of the volume is Mr. Bower Aly, Department of English, University of Missouri, Columbia, Mo.

The Bureau of Medical Economics of the A. M. A. has prepared an article on the negative argument of this proposition. This article will appear in the Official Debate Handbook. The American Medical Association has also made available for free distribution to debaters the following publications of the Bureau of Medical Economics:

A Critical Analysis of Sickness Insurance;
Sickness Insurance Not the Remedy;
Sickness Insurance Catechism;
Some Defects in Insurance Propaganda.

The proposition for debate for students during 1935-1936 has been officially announced; unfortunate as the selection may seem, I am of the opinion that it is not only impossible but also unwise to attempt to change the National University Extension Association plans. On the contrary, I believe state medical societies should endeavor to assist debaters* to secure the most dependable printed material on the subject and an accurate understanding of the attitude of the medical profession as represented in the official actions of the House of Delegates.

Yours, etc.,

R. G. LELAND, M.D., *Director,*
Bureau of Medical Economics, A.M.A.

CONTRIBUTIONS TO MEDICAL BENEVOLENCE FUND

The Committee on Medical Benevolence makes grateful acknowledgment of the following contributions to the Fund:

Woman's Auxiliary, Medical Society of the State of Pennsylvania	\$200.00
Woman's Auxiliary, Chester County Medical Society	100.00
Woman's Auxiliary, Lehigh County Medical Society	100.00
Woman's Auxiliary, Blair County Medical Society	75.00

Total contributions since 1934 report .. \$3005.00

* Debaters may secure this material by writing to the Mail Package Library Service, 230 State St., Harrisburg, Pa., or Mr. C. Stanton Belfour, University of Pittsburgh, Pittsburgh, Pa.

CHANGES IN MEMBERSHIP OF COUNTY SOCIETIES

The following changes have been reported to August 13:

ADAMS: *New Member*—Harry Jones Jordan, New Oxford.

ALLEGHENY: *Deaths*—Howard H. Heinrich, Pittsburgh (Univ. Pgh., '12), Aug. 4, aged 52; Nicholas Albrecht, Pittsburgh (Univ. Pgh., '01), Aug. 6, aged 56.

CAMBRIA: *Death*—Calvin C. Rush, Johnstown (Univ. Pgh., '07), July 19, aged 59.

CHESTER: *Reinstated Member*—Appleton H. Pierce, Coatesville.

CLEARFIELD: *New Members*—Maximo J. Tornatore, 101 S. Second St., Clearfield; James F. Smith, Woodland. *Death*—Harry H. Thompson, Philipsburg (Jeff. Med. Coll., '89), July 2.

CUMBERLAND: *Death*—Parker U. Wagoner, Carlisle (Temple Univ., '11), June 14, aged 49.

ELK: *Reinstated Member*—James L. Hackett, Emporium (Cameron Co.).

INDIANA: *Reinstated Member*—James E. Peterman, Cherry Tree.

LANCASTER: *Reinstated Member*—William G. Moorehouse, 134 E. Walnut St., Lancaster.

LEHIGH: *New Member*—Edgar C. Statler, 509 Linden St., Allentown. *Transfer*—John Frederick Boyer, Allentown, from Carbon County Society.

LUZERNE: *Reinstated Member*—Francis B. Eveland, 478 Carey Ave., Wilkes-Barre.

MONTGOMERY: *Reinstated Member*—George D. Mulligan, 820 W. Marshall St., Norristown. *Death*—Clark S. Long, Lansdale (Univ. Md., '16), July 17, aged 49.

MONTOUR: *New Member*—Vincent J. Cassone, State Hospital, Danville.

PHILADELPHIA: *New Members*—Jack L. Weinstein, 2415 N. 33d St.; Theodore H. Mendell, 5907 Walnut St.; Maurice H. Schneiman, 1220 Cottman St.; Philip Q. Roche, 5100 Walnut St., Philadelphia. *Reinstated Members*—Washington Merscher, 6118 Greene St., Gtn.; Thaddeus L. Montgomery, 1930 Chestnut St.; Samuel Bellet, 1818 Pine St., Philadelphia. *Death*—Lee McKinstry Bryan, Philadelphia (Georgetown Univ., '21), July 11, aged 43.

YORK: *New Members*—John C. Ajac, 200 Carlisle St., Hanover; M. Heine Shear, Dover; Roland S. Murt, Hallam.

PAYMENT OF PER-CAPITA ASSESSMENT

The following payment of per-capita assessment has been received since July 12. Figures in first column indicate county society numbers; second column, State Society numbers:

July 13	Clearfield	64-65	7990-7991	\$7.50
16	Chester	102	7992	7.50
18	Dauphin	209	7993	7.50
	Luzerne	321	7994	7.50
	Franklin	62	7995	7.50
22	Venango	53	7996	7.50
	Fayette	109	7997	7.50
24	Lehigh	147	7998	3.75
26	Berks	167	7999	7.50
	Elk	23-24	8000-8001	15.00
27	Montour	41	8002	7.50
31	York	141	8003	3.75
Aug. 2	Philadelphia	2096-2102	8004-8010	37.50
	Montgomery	186	8011	7.50
5	Lancaster	176	8012	7.50
6	Indiana	47	8013	7.50
	York	142-143	8014-8015	7.50
8	Adams	24	8016	3.75
9	Luzerne	322	8017	7.50
	Chester	103	8018	7.50

EMERGENCY MEDICAL RELIEF IN PENNSYLVANIA

HAROLD A. MILLER, M.D., *Director*
Harrisburg

The following information is for the purpose of clarifying several questions regarding the syphilitic survey:

The program does not extend beyond the pregnant woman and her child born as the result of this pregnancy.

It is a survey with treatment provided, but the survey advantage would be nullified unless a blood Wassermann is taken on *each* and *every* case.

The list of participating physicians shall be kept in the local county relief office.

Physicians receiving a medical order for obstetric care shall take the Wassermann at the time of their first or second contact, made not more than one week later. Specimens are to be sent to the State Laboratory, Philadelphia, or such laboratories as have been previously approved and will contribute this service to the Department of Health and the relief administration.

All Wassermann reports are to be firmly attached to, or stapled on, the medical order when submitted for payment if the \$25 fee is charged. Syphilis discovered as the result of a positive Wassermann is to be treated in accordance with the pamphlet entitled "Standard Treatment Procedure in Early Syphilis." (Copies of this pamphlet may be obtained by addressing a request to the Superintendent of Documents, Washington, D. C., at a cost of 5 cents.)

Drugs for syphilitic treatment will be furnished by the State Health Department of Harrisburg upon request. Requests for these drugs should be addressed to the State Health Department but must have the certification of the local relief administrator that the particular person for whom they apply for drugs is on relief. They will, in turn, be sent direct to the attending physician. The attending physician must treat all cases to the termination of pregnancy and 6 weeks thereafter (end of puerperal period), but in any instance for 6 months, meaning that syphilis discovered at the seventh or eighth month must be treated throughout a 6 months' period; otherwise it is not compensable.

RULES AND REGULATIONS

Governing Medical Care Provided in the Home of Recipients of Unemployment Relief

Effective Aug. 11, 1935

Introduction

The State Emergency Relief Administration of Pennsylvania, realizing the need for a uniform policy for providing adequate medical care in the home as a part of unemployment relief, has established a policy, the essence of which is:

(a) An agreement by the relief administration to recognize within legal and economic limitations, the traditional family and family physician, dentist-patient, physician-nurse, and pharmacist-customer relationship in the authorization of medical care for unemployment relief beneficiaries in their homes. The solicitation of patients by medical participants, either directly or indirectly, or any interference with this relationship is in conflict with the intent herein proposed.

(b) An agreement by the physician, nurse (or nursing organization), dentist, and pharmacist to furnish

the same type of service to an unemployment relief beneficiary as would be rendered to a private patient, but that such authorized service shall be a minimum consistent with good professional judgment, and shall be charged for at an agreed rate which makes due allowance for the conservation of relief funds. It implies coöperation of the relief recipient with the physician of his or her choice. A choice, once made as indicated by the presentation of the medical order to a physician or dentist, must be adhered to by all members of the family except where the local medical or dental advisory committee concurs in a suggested change.

The common aim is the provision of good medical service at a low cost—to the mutual benefit of the unemployment relief beneficiary, physician, nurse, dentist, pharmacist, and taxpayer.

(c) The policy adopted shall be to augment and render more adequate facilities already existing in the community for the provision of medical care by the medical, nursing, and dental professions to the unemployment relief beneficiaries. It shall imply continuance in the use of hospitals, clinics, and medical, dental, and nursing services already established in the community and paid for, in whole or in part, from local and/or state funds, in accordance with local statutes or charter provisions. The diagnostic and consultant facilities of hospitals and clinics which are available should be used when necessary for accuracy of diagnosis, and/or to insure adequate medical care. Federal Emergency Relief funds shall not be used in lieu of local and/or state funds to pay for hospital services.

(d) The phrase "in their homes" shall be interpreted to include office service within the scope of the Emergency Medical Relief program for ambulatory patients, with the understanding that such office service shall not supplant the services of clinics or dispensaries already provided in the community.

Scope of Participation

Participation in the medical program outlined below shall be open to all physicians licensed to practice and registered in the State of Pennsylvania subject to local statutory limitations and the restrictions specified in these Rules and Regulations. The above sentence applies also to participating dentists, nurses, and pharmacists in the medical program.

Physicians, dentists, or nurses receiving a salary for professional work from the state, a political subdivision thereof, or a private social or health organization, or from any organization which provides medical service for its employees are ineligible for participation in the relief program. Physicians coming within this category must prove a physician-patient relationship in every instance prior to Jan. 1, 1933, as a basis for eligibility to participate in the program. This program does not prohibit physicians from giving free medical attention when and where they choose, but defines the financial responsibility of the relief administration.

Nurses employed part or full time in physicians' or dentists' offices shall not be recognized as participants.

Participating physicians or dentists must assist in keeping the program within economic limits by lifting a medical order if examination of the patient reveals that medical attention is unnecessary, and they should report the matter to the local relief administration. A diagnostic visit may be charged.

By the acceptance of a medical or nursing order, or the filling of a prescription, the participant (physician, dentist, nurse, or pharmacist) certifies to his acquaint-

ance with the Rules and Regulations and that his relationship is to be governed thereby.

Advisory Committees

The State Emergency Relief Administration has appointed State Advisory Committees to assist in maintaining proper professional standards in the provision of adequate medical care to recipients of unemployment relief and in enlisting the coöperation in this program of county professional societies through similar county committees. The state or county advisory committee should be consulted by the state or county relief administration respectively with regard to disputed problems of medical policy and practice.

The County Advisory Committee, the State Advisory Committee, or the Administration may institute an investigation of any physician, made as follows:

The medical investigator shall report to the local administration and the chairman or a member of the County Advisory Committee that an investigation is to be made giving the county society an opportunity to delegate a physician to accompany the medical investigator and witness the report. If the county society does not accept this opportunity, the county administration shall furnish a worker to accompany the medical investigator. Upon completion of the investigation, the medical investigator shall give the County Advisory Committee an opportunity to review the findings, interrogate the medical investigator, and make recommendations to the Relief Administration. The local physician may appeal to the State Advisory Committee and submit documentary evidence to contravert the original findings. An investigation once made shall be final. The State Emergency Relief Administration may remove the name of any participant from its list for irregularities or noncompliance with these Rules and Regulations.

Eligibility for Medical Relief

Persons to receive medical care must be on relief because of unemployment. Determination of eligibility for relief is the prerogative of the Relief Division. The request for medical relief may originate with the relief investigator, the relief patient, or the doctor (in emergencies).

Scope of the Program

The services covered are to be given only as a supplement to existing community facilities for providing medical relief to needy unemployed persons and their families. While the program is not intended to increase the public expense where medical aid is now provided for the unemployed, it is intended to provide aid from public funds in cases where adequate medical relief is not now being given and to relieve private physicians heretofore compelled to bear the burden without compensation. Care is to be provided, therefore, only in the homes of the unemployed, with the exception of ambulatory cases which may have office attention. Medical relief shall preferably be supplied by the patient's own (or previous) medical attendant. This policy allows freedom of choice and tends to maintain traditional family-medical attendant relationships.

Physicians must follow their usual practice and custom in dispensing, but provision is made for the purchase of drugs not usually dispensed by the attending physician, and for emergency medical supplies and medical, dental, and nursing attendance in the home, subject to the regulations herein stated. Drugs are limited to

those needed for the specific disease and do not include those used by habit.

Bedside nursing and emergency dental service, as specifically defined, are within the scope of the relief program.

Nurses' services afforded under this program shall not supplant present services, but augment or supplement their scope.

Medical, bedside nursing, and dental care shall not ordinarily be authorized by the emergency relief administration for conditions that do not cause acute suffering, interfere with earning capacity, endanger life, or threaten some permanent new handicap that is preventable when medical care is sought.

All medical orders cover concurrent ailments in the family during the existing time limit of the medical order, and in acute cases treatment is to be carried through to termination without additional authorization or compensation.

The reportable diseases are compensable beyond the diagnostic visit only when reported to the proper health authorities.

The local Financial Division must not issue medical orders for injuries sustained on Work Relief Projects or any other employment covered by the provision of the Workmen's Compensation Act. Further details regarding the scope of the program will be found under "Kinds of Medical Service" following.

Method of Authorization

All authorizations for medical, bedside nursing, and emergency dental care shall be issued in writing by the County Emergency Relief Administration on the proper relief order blank (Form SERB 77M, 77N, 77P), prior to the giving of such care, except telephone authorizations which may be given in emergency cases and be followed immediately by a written order. In the event of night emergency calls when the physician is uncertain whether or not the patient is on relief, and to determine whether or not the service is compensable, the patient's name and address must be reported to the County Emergency Relief Administration within 48 hours. If notice of the emergency is given the Relief Administration by mail, the date stamped on the envelope by the receiving post office must be recorded as the effective date. Investigation will then be made by the County Emergency Relief Administration and, if it is found to be an approved case for relief, authorization must be issued. The medical order will be mailed to the physician if the mail notification contains a request to this effect, signed by the patient. Medical orders are void after 48 hours.

Each order for medical or dental Services must bear the *signature* of the local comptroller.

"Special authorization," where used, means endorsement by the local advisory committee, before the work is done, and is to be attached to Medical Authorization (SERB Form 77M, 77N, 77P) when presented for payment. (See also Dental Service). SERB Forms 77SM and 77SD will be used by physicians in requesting special authorization for medical or dental service.

Authorizations for bedside nursing care shall be issued on recommendation by the attending physician in cases in which a physician is in attendance. When nursing care is required, the physician shall certify to the need for bedside nursing service as part of the medical care on SERB Form 77N.

Authorization for medicine and emergency medical supplies shall be issued in writing on SERB Form 77P, and in general such authorization shall not be issued

except upon written request of the physician authorized to attend the person for whose use they are desired. In cases in which the necessary medication is not ordinarily dispensed by the physician, he may write one prescription, the second upon approval of the Relief Administration. More than 2 prescriptions require special authorization by the local Advisory Committee. Physicians must indicate on each medical order, in the space provided, the number of prescriptions used for the case or cases treated.

Schedule and Regulations Governing Fees

The fee for an authorized office visit is \$1; home visit, \$2. The established professional fee of any community, or any individual practitioner, when lower than the schedule herein specified, must be the basis for determining the relief rates for the medical or dental participant. The fee for authorized obstetric care in the home, as specified under Obstetric Care, shall not exceed \$20. The fee for an authorized bedside nursing visit shall not exceed 85 cents. The fee for dental service is specified under "Dental Service." Fees for special services and regulations regarding them are given under the next heading.

Kinds of Medical Service Acute Diseases

Minor injuries and ailments which will result in spontaneous recovery should be limited to the original diagnostic visit. This visit should include such instructions and medication as are indicated.

A strict application of minimum service will be applied by the county advisory committee. Fees for visits in excess of 10 contacts, or beyond the 2 weeks' period, are not compensable.

All bills are subject to the economic limits of available funds, the designated average per medical order, and a total compensation in any one month. This definite control of minor ailments and accidents will enable county medical advisory committees to authorize a reasonable extension of treatment in the more serious conditions which entail responsibility extending beyond the 2 weeks' period; notably, typhoid fever, certain fractures, etc. Experience indicates that a fair average charge is \$5 per medical order in urban, and \$7 in rural, communities. A limit of \$100 to any participant in any one month may be applied by the local advisory committee or by the Administration to conserve funds, bring about a distribution of the work, or correct overcharges.

Hospitalization

Cases which require surgical intervention for adequate care must be referred to the hospital promptly. Refusal of a patient to accept a recommendation to this effect does not justify continued charges. Preoperative diagnostic care only is compensable.

Postoperative treatment is not within the scope of this program, except on an individual basis as provided for under chronic orders.

Obstetric care

Authorization for obstetric service in the home shall include a minimum of 6 prenatal visits, delivery in the home where possible, and a minimum of 3 postnatal visits. Where practicable, original authorization for obstetric care shall be based upon the choice of the patient as to whether delivery shall be in the hospital or the home. Caution shall be exercised that this authorization for delivery in the home does not involve undue risk to the patient for whom hospital care may be im-

perative. The physician authorized to attend the confinement in the home certifies to the local relief administration, by the acceptance of such authorization, that in his professional judgment, delivery in the home will be safe. As above stated, hospital treatment and care cannot be paid for from relief funds.

The physician's statement for obstetric service shall be rendered at the termination of his service.

Bedside nursing care for obstetric patients shall, in general, be subject to the same restrictions and limitations stipulated above.

Only prenatal visits actually made are paid for unless the patient is put on the relief rolls at a time which precludes the possibility of 6 properly spaced prenatal visits.

Medical orders must indicate date of birth, and the condition of mother and child.

The fee for a completed obstetric case (6 prenatal visits, delivery, and 3 postpartum visits) is \$20. For those participating in the Syphilitic Survey, an additional \$5 is allowed.

Chronic Diseases

Medical care for prolonged illnesses, such as chronic asthma, chronic heart disease, chronic arthritis, diabetes, postoperative care, *etc.*, may receive special authorization by the State Administration only on an individual basis. In general, the disease must be within the scope of successful home or office visits, and in all cases within the scope of the program. Visits shall be limited to a minimum, and only when absolutely necessary shall the frequency be, but must never exceed, one visit per week for a period not exceeding 2 months. It is suggested that the physician apply for a chronic order after the diagnostic visit. Renewal of a chronic medical order will be considered when the ailment comes within the scope of conditions covered by the Emergency Medical Program, and eligibility for unemployment relief has been certified to by the County Emergency Relief Administration. Renewals must be applied for by letter to the S. E. R. A. on a form which gives in detail the patient's condition, and, when issued, will indicate the financial responsibility of the Relief Department, and may indicate medical procedures thought necessary to render adequate medical attention (metabolic surveys in diabetes, differential counts in anemia cases, *etc.*).

SERB Form 77SM, Request for Special Authorization for Medical Service, shall be used for this purpose.

Fractured jaws and Vincent's infection shall be subject to the regulations outlined in the dental program. Treatment of these conditions is permitted by both branches of the profession, either singly or in consultation one with the other.

Medicine and Medical Supplies

Authorization is granted to fill one prescription written on each Form SERB 77P. The second prescription is given to the physician on request to the local relief administration. Three or more prescriptions must have special authorization in writing on Form SERB 77P by the local medical advisory committee who thereby certify to the need of the recommended medication. All prescriptions must contain only drugs found in the United States Pharmacopeia, or National Formulary. Expensive or proprietary drugs must have special authorization by the local medical advisory committee and the local relief administration. If used beyond the period of the medical order, they must have special authorization by the State Relief Administration.

Druggists may contact the prescribing physician with the thought of providing the medication indicated in a manner which saves compounding charges, such as non-toxic powdered drugs in bulk, with directions to take a teaspoonful, or a part of a teaspoonful, stirred in a glass of water; sodium bicarbonate; calcium bismuth; potent drugs in saturated solutions with doses given in drops, Fowler's solution, opium, *etc.*

The preparation of a prescription in a manner pleasing to the eye, or its palatability, cannot be permitted to increase the cost.

The name and quantity of each drug and number of the prescription are to be shown by the pharmacist on the reverse side of Form SERB 77P, "Authorization for Prescription." The formula must also be shown for each prescription costing more than 25 cents. Prescriptions costing more than 50 cents must have special authorization of the Relief Administration.

The authorization must be billed in the same manner as outlined heretofore for medical charges.

In determining the fairness of bills, the local advisory committee is directed to consider only the cost of the crude drug, plus a reasonable compounding and container charge.

Dental Service

Dental care must be a minimum and must never exceed \$10 on one dental order. Fractured jaws are handled in a special manner.

If the dentist cannot attend the patient the day the order is presented at his office, he must indicate the date the order was presented, make and initial an appointment date, retain the order, and perform the work at the time specified.

As a routine procedure, and in accordance with good dental practice, ample instructions in oral hygiene and home care should be given to every patient presenting a relief order.

Extractions: For an emergency extraction when dental order is presented, the fee including cost of local anesthetic should not be more than \$1 for the first tooth and not more than \$1 for each additional tooth. Extractions are not compensable beyond 3 without special authorization, provided that the maximum charge for one dental order, including full mouth extraction, even if given special authorization, shall not exceed \$10.

Only in extreme cases should all teeth be extracted as there is no provision for the making of any restoration, and if done as a part of a general health condition, it must have been after a consultation with, and certification by, the attending family physician. A general anesthetic, if given special authorization, may be used and is compensable at the rate of \$2 per case. In exceptional cases only can a charge be made for pre-operative or postoperative care and must be given special authorization by the local Advisory Committee.

Home Visits: Will be paid for at \$2 per visit, limited to postoperative hemorrhage, and the original home visit must be investigated and certified to by the Advisory Committee. Only one home visit is permitted without special authorization.

Impactions: Maximum fee, including roentgen ray, shall not exceed \$5. Roentgen-ray confirmation must be firmly attached to the dental order and the special authorization of the local committee must accompany same.

Fillings: Fee \$2 per tooth. Filling of more than one tooth must have special authorization by the local Advisory Committee. A tooth that must be used for a bridge or a partial denture abutment at some future

date, shall be filled and considered an emergency filling. Special authorization is necessary when more than \$3 is charged on a dental order.

Prophylaxis: Not in program.

Gingivitis: Not in program.

Pyorrhea: Not in program.

Dental Roentgen Ray: Not within the scope of the Emergency Relief Program, except to aid in the removal of impacted molars and the eradication of a cyst. Fee for use is included in rendering both services.

Dentures and Bridge Repairs: For an emergency repair of an existing denture or bridge which must receive special authorization, the fee is \$3, plus 50 cents for each additional tooth or facing, but not to exceed a total fee of \$5.

Recementing Crowns or Bridges: Fee \$1.

Special Cases: All special cases not covered by these regulations must have special authorization from the Harrisburg office in advance.

When a general anesthetic is requested, a statement explaining the necessity must be signed by the requesting dentist, be given special authorization in writing by the local Advisory Committee, and be attached to the dental order when presented for payment.

Cyst Removal: Usual office fee of \$1, but not to exceed \$5. Confirmation by roentgen-ray picture must be firmly attached to and accompany dental order. NOTE: There must be special authorization for more than one visit.

Fractured Jaws: For an emergency fractured jaw (*minimum service* in accordance with good practice to be given), fee not to exceed \$20. Roentgen-ray picture must be firmly attached to dental order.

Root Canal Therapy: Must be given special authorization by the local Advisory Committee in advance, and only when tooth is necessary for an abutment for bridge or denture, or when removal of anterior tooth or teeth would necessitate bridge or partial denture, which cannot be provided. Fee including root canal filling and filling of tooth not to exceed \$5.

Lancing Acute Abscesses: Fee \$1. More than one visit must be given special authorization.

Vincent's Infection: Usual \$1 office fee, but not to exceed \$10 (*minimum service* in accordance with good practice to be given). To be compensable the dental order must be accompanied by a positive report from an approved pathologic laboratory, if and when requested by the local Advisory Committee or the Relief Administrator. Special authorization must be secured for more than 3 treatments. The acceptance of a case presenting this condition means that the participating dentist will carry it to its completion even beyond the maximum service allowed by these Rules and Regulations without further authorization or compensation from public funds. Ample instructions in oral hygiene and home care must be given.

When the term "special authorization" is used, it means that the local Advisory Committee must be sufficiently familiar with the condition to justify the ordering of the dental work and must plainly make this authorization. The dentist will make the request for special authorization on SERB Form 77SD which he will present to the local Advisory Committee. The endorsement on this form by the committee will constitute the dentist's authority to proceed with the work. The request for special authorization, endorsed by the committee, must be attached to the medical order with the bill when it is presented for payment.

In case it is necessary for a committeeman to give special authorization over the telephone, the dentist

must present the request for special authorization (SERB Form 77SD) to the local Advisory Committee for endorsement within 24 hours of the emergency special authorization.

The local Advisory Committee cannot approve dental work coming under special authorization in any other way.

When additional members of a family on relief are accepted by a participating dentist, there will be no reduction from the fees as given above.

In accepting a dental order, the participant certifies to the fact that he is familiar with the Rules and Regulations governing general medical and dental care given to relief recipients and will accept the decision of the County Advisory Committee and/or the Relief Administration.

Members of the local and/or State Dental Advisory Committee are to be nominated by the local and/or State Dental Society and must be acceptable to the State Relief Administration.

The local Advisory Committee, the State Advisory Committee, and/or the Relief Administration may apply any rule applicable to the general relief program to any participating dentist, and may suspend or permanently remove dentists from the list of participants on account of failure to cooperate with the local Advisory Committee, or if irregularities are disclosed.

Dissemination of Information Between Administration and Medical Participants

Publication in the official organ of a professional group, and mailing to county executive directors and the chairmen of the local Professional Advisory Committees of any interpretation or ruling shall constitute due and legal notice to all. In case of the failure to publish such interpretation or ruling in the official organ of any professional group, the same shall be considered in operation 48 hours after mailing unless an advanced date shall be specified. No ruling shall be retroactive.

Medical participants wishing to make inquiry regarding a real or apparent delay in payment of bills must follow organization lines. Inquiry should first be made of the local administration as to the date the bills in question were forwarded to Harrisburg; then, if a period of 30 days has elapsed since the bills were forwarded from the county, the participants may write the Medical Department of the Relief Administration at Harrisburg, giving the date of requisition and its number. This will enable the Medical Department to give a complete and satisfactory answer.

All other misunderstandings or matters requiring interpretation must be presented by the participant to the local Advisory Committee. The local committee will represent the participant in requesting information from the State Administration, and will interpret to participants any part or parts of the Rules and Regulations regarding which a misunderstanding exists.

Preparation of Authorizations (By Participants) Medical and Dental Authorizations

When rendering medical or dental care to a relief patient, the physician or dentist will be requested to insert the following information on each order for medical or dental services (SERB Form 77M).

1. *Appointment date*—(dental only).

2. Insert, in the respective place on the form for each visit made, *date* and *symbol*, *H* designating home

visit, *O* designating office visit. Only one visit shall be paid for in any one day.

3. *Nature of illness or diagnosis*; if dental order, follow special instructions below.

4. State *prognosis* at the time case is completed or billed.

5. Check whether prescription or nursing was authorized. When authorizing prescriptions or nursing service, the Medical Order number must be placed on each prescription or nursing authorization.

6. Specify amount for services on each order. Maximum amount per case as stated herein must not be exceeded.

7. All signatures must be in ink or indelible pencil. Ordinary pencil signatures will not be honored.

8. Medical or dental services must not be rendered unless applied for within 48 hours of the date specified on the order.

9. Only one invoice may be entered against an order. This must be done only when the services to the relief patient have terminated, or after the maximum fee has been earned.

It is the responsibility of each physician or dentist to insert the above information on each order; unless this is done payment will not be made.

The local Financial Division must not issue Medical Orders for injuries sustained on Work Relief Projects or during other employment covered by the provisions of the Workmen's Compensation Act No. 328-1933, which is a supplement to Workmen's Compensation Act of 1915.

The physician must secure the signature of the relief recipient on the medical order. In case of a single diagnostic visit and in order to avoid the necessity of a special trip to obtain the relief recipient's signature, the physician may obtain the signature at the time of the contact on a form provided by the S. E. R. B. for this purpose.

Special Instructions to Dentists

Proper Method of Specifying Dental Service on Medical Orders

F—Filling		
X—Extraction	87654321	12345678
D—Teeth added to denture		
V—Vincent's infection	87654321	12345678
E—Extirpation		
I—Impaction	If deciduous teeth, mark a small	
G—General anesthesia	d in square beside tooth number.	

Preparation of Authorization for Nursing Services (SERB Form 77N)

The local Financial Division shall issue to the participating physician an Authorization for Nursing Service (SERB Form 77N) with each Medical Order. This service is requested by the physician only in cases that conform with the Rules and Regulations specified herein.

1. The name and address of the County Emergency Relief Administration furnishing authorization and date shall be stamped on form before issuing.

2. The physician, when requesting nursing service, must notify the local Financial Division by telephone or writing within 48 hours and insert the following information on the authorization form.

- Medical Order number.
- Name of nurse's association.
- Name and address of nurse.
- Relief case number.

e. Signature of physician in ink or indelible pencil.

It is very important that the physician insert this information on each authorization; unless this is done, the nurse cannot render her services.

3. The nurse assigned to the case must use the space on the reverse side of this authorization form for reporting the case in detail and inserting the charges.

The nurse shall insert the following information:

a. General nature of illness or diagnosis.

b. Prognosis at time case is completed or billed.

c. Date and amount of each visit. Only one visit can be charged during any one day.

d. Amount for services rendered. Maximum amount for services must not be exceeded.

e. Signature must be in ink or indelible pencil.

f. No invoice for nursing service can be paid without the Authorization for Nursing Service (SERB Form 77N).

g. Only one invoice may be entered against a nursing authorization. This is done after the services have terminated or the maximum amount has been earned.

It is important that this information be given on each authorization; unless this is done, the service rendered by the nurse will not be paid.

Prescription

1. An Authorization for Prescription (SERB Form 77P) may be issued by a physician to a relief patient when rendering medical care authorized by the local Emergency Relief Administration on SERB Form 77M. Name and address of County Emergency Relief Administration furnishing authorization forms will be stamped on each authorization before issuing.

2. The doctor must insert on SERB Form 77P the following information:

a. Date medicine is prescribed.

b. The serial number of the order for medical or dental services (SERB Form 77M) against which the prescription was issued.

c. The name and address of the relief patient for whom medicine is prescribed.

d. Signature of doctor must be in ink or indelible pencil.

The pharmacist must be guided by the Rules and Regulations of the State Emergency Relief Administration in filling prescriptions. He shall place in the spaces provided the date the prescription is filled, prescription number, and amount. If a prescription costs more than 25 cents, the formula must be shown on the SERB Form 77P. Prescriptions cannot be refilled.

The relief recipient must sign the prescription in ink or indelible pencil when presenting it to the pharmacist. *No prescription can be filled without the physician's and relief recipient's signatures.*

The pharmacist must also certify, in ink or indelible pencil, the Authorization for Prescription (SERB Form 77P) before invoicing. *Only one invoice may be rendered against a prescription authorization.*

Preparation of Invoices

Physicians, dentists, nurses, and pharmacists providing authorized medical and dental care, and providing prescribed medicine to relief recipients, shall submit on or before the first of each month an invoice in duplicate to the local Financial Division. Invoices for medical and dental services will include all completed cases and cases for which the maximum allowable amount has been earned. Invoices submitted later than 30 days after the last compensable visit will not be paid. Invoices should be rendered on business stationery, but

when this is not available, ordinary letter-size paper may be used.

Separate invoices must be rendered for each sub-classification, i. e., *medical, dental, nursing, prescriptions*, listing the *authorization forms in numerical sequence opposite the amount, and in each case the authorization forms must be attached to the invoice*. Items listed on the invoices unsupported by the original authorization forms properly filled in and signed will be returned by the State Emergency Relief Administration. *No payment shall be made unless this information is provided*.

The local Financial Division will submit all invoices of the above classifications to the local medical supervisor and the County Medical Advisory Committee before verifying and approving them for payment.

The local comptroller, after verifying and approving the invoices, shall prepare the Appropriation Requisition (BB-240A), with the original invoices and authorization forms attached, and forward to the State Emergency Relief Administration, Harrisburg, for payment.

County Society Reports

CHESTER

July 16, 1935

The regular meeting was held at the Women's Club in Downingtown. After dinner the meeting was called to order by Acting President Hughes. In view of the fact that the August session is to be entirely a business meeting, no business was discussed at this meeting other than the report of the Executive Committee. Included in this report was a statement of the Public Health Doctor Subcommittee indicating that 3 candidates for the position of Public Health Doctor were now under consideration but no definite selection has been made.

Films on venereal disease will be available for public meetings during a week in October.

The Public Health Commission joined with the Economics Committee in opposing a recent provision of the State Emergency Relief Board in making State Health Laboratories available for Wassermann examinations in all maternity cases now on emergency medical relief. It was felt that all such examinations should be made in private and hospital laboratories and paid for by the state rather than to allow the State Laboratory to enter into direct competition with hospital laboratories, etc.

The Public Health Commission recommended that the county society proceed with the conduct of paragraph 5 of the adopted public health program.

The commission further recommended that the president of the society be requested to make a report of the present status of the preventive treatment of anterior poliomyelitis.

The Executive Committee unanimously approved the request of the Economics Committee that our delegates to the State Society meeting at Harrisburg request the State Society to define "contract practice" definitely and specifically within the limits of "reasonable competition," and to state definitely whether physicians employed by insurance companies on a contract basis for all compensation cases are guilty of violation of the Code of Ethics of The Medical Society of the State of Pennsylvania.

The scientific program consisted of 3 papers by members of our own society. Irving M. Waggoner read a paper on the "Mechanism of the Heart." Dr. Wag-

goner referred to the various valves of the heart and showed how different signs and symptoms attributable to heart disease are frequently due to disturbances of valvular function and other factors of the heart mechanism.

U. Grant Gifford spoke on the "Significance of Hypertrophy of the Heart." Dr. Gifford particularly stressed the fact that hypertrophy is practically always associated with some degree of cardiac dilatation. He also clearly differentiated between myocarditis and the newer term of a long-recognized condition, namely, myocardosis. The important fact was emphasized that work never has any deleterious effect on normal heart muscle; it is always a pathologic muscle that is influenced by work.

Murray M. Friedman read a paper on "The Effect of Rheumatism on Heart Disease." He presented many statistics obtained from the literature and arrived at certain conclusions relative to the incidence, etiology, prognosis, and treatment of rheumatism, particularly as regards its dreaded complication, heart disease.

JOSEPH SCATTERGOOD, JR., *Reporter*.

FAYETTE

May 2, 1935

The meeting was held in the Medical Hall of the Untown Hospital at 8:30 p.m., John D. Sturgeon, Jr., president, presiding.

Henry T. Price, professor of pediatrics, University of Pittsburgh, read a paper on "Immunology." He discussed in detail the history of immunology with special reference to the work of Jenner on vaccination and Pasteur on anthrax and cholera. He said in part:

Before vaccination was established, smallpox killed 20 per cent of all children born. Eighteen per cent of the cases now in Pennsylvania are under age 5. Routine vaccination during the first year of life should be advocated.

A cure for diphtheria was first discovered in the form of antitoxin. Its use lowered the mortality of this disease 90 per cent; 15,000 deaths occurred yearly as compared with 5000 at the present time. All these can be eliminated by the use of toxin antitoxin or toxoid. The use of toxin antitoxin requires 6 months to produce the height of immunity.

Fifty thousand cases of measles occur annually in Pennsylvania. This disease is considered trivial by many but ranks as the second highest cause of death of all contagious diseases. Its treatment consists in the use of convalescent serum obtained from patients within 3 months from the onset of their disease. Six to 10 c.c. is given intramuscularly, rendering the attack very mild. This treatment is more applicable to hospitals. Cody, of Boston, has used placental extracts to prevent 91 of 95 cases exposed to measles.

Seventeen thousand cases of pertussis occur yearly in Pennsylvania. This disease ranks third in the mortality of contagious diseases; 88 per cent of the cases occur under age 6, resulting in a mortality of 15 per cent. There is no natural immunity or special treatment. All vaccines used are doubtful. Etiologic factors are all in doubt but many believe Bordet-Gengou bacillus is the cause. A vaccine of the Bordet-Gengou bacillus has been prepared and administered to the patient in doses of $\frac{1}{2}$, 1, and $1\frac{1}{2}$ c.c. weekly.

Physicians must realize the importance of immunology and make use of their knowledge in the preven-

tion of childhood diseases. The general practitioner must be the family advisor.

In discussion Drs. LaClair and Sturgeon, Jr., stated that they have not observed any after-effects from the toxoid for the prevention of diphtheria. It is advisable to give the toxoid injection first, followed by the vaccination.

June 6, 1935

The meeting was held at the Uniontown Hospital, at 8:30 p. m., John L. Messmore, Masontown, presiding.

Robert H. Jeffrey, Uniontown, read a paper on "Surgical Procedures in Office Practice." Infections of the hand are frequent. True tendon-sheath infections are rare in general practice. The diagnosis of a beginning tendon-sheath infection is difficult and may be aided by the use of a hemostat. Early incision is essential. Wet dressings are beneficial.

Osteomyelitis often follows finger infections. Drainage is very important. A thick purulent discharge is almost diagnostic. A splint to the part combined with moist dressings is most beneficial. Infections over the palm of the fingers and hand are more dangerous. Early incisions are beneficial. If the tendon sheaths are involved, pain is present on extension of the finger. Infections on the dorsal portion of the hand usually start as an infection of the hair follicles. Lymphangitis of the hand is not as common but frequently follows trivial infections. The ulnar side of the arm drains to the lymph nodes of the elbow while the radial side of the arm drains directly to the axilla. Wet dressings are beneficial. Axillary gland infections are not unusual. Complete rest to the part with skin cleanliness is essential. The patient should be put to bed, all pustules opened, drainage established, and wet dressings with external heat applied. Furuncles are a common skin infection. The anatomic part should be kept clean and the part splinted. A needle dipped in phenol may sterilize the hair follicles. Occasionally the injections, every 5 days, of a staphylococcus toxoid, similar to that used in diphtheria, may be beneficial.

Carbuncles are usually multiple furuncles and occur more frequently on the neck and upper lip. The danger in the treatment lies chiefly in an extension of the infection through the veins and intracranial sinuses. Absolute rest is essential. Many physicians believe bacteriophage has helped.

Paronychia usually follows a break in the skin near the nail base within 2 to 4 days. It should be watched closely and the greenish cap removed as soon as formed, being careful not to leave any underlying abscess. The nail should be trimmed for drainage.

George H. Robinson, Uniontown, read a paper on "Surgical Procedures and Treatment." Lately, many eyebrow infections are due to plucking hairs. Tendons should not be sutured in the office if at all possible to hospitalize the patient. Varicosities and hemorrhoids can be injected in the office. Cervical cautery should be practiced more frequently by physicians in their offices, and should be done in postpartum check-ups. It is wise never to use catgut through the skin; use horse-hair around the face, and silk-worm-gut or skin clips in other parts of the body. Silk sutures may be used more advantageously in the mouth. Needles already sterilized in suture tubes with the suture material should be preferred. Tincture methiolate is his antiseptic of choice. Hychlorite dressings are detrimental to clothing.

A business meeting followed, at which time a com-

munication was read from Harrisburg advising physicians in regard to taking prenatal Wassermanns at \$5 for each one taken with a stipulation to render necessary treatment if the test is positive.

Harry J. Bell, Dawson, reported for the committee on health examination of preschool children, recommending a minimum price of \$2 for the examination, vaccination, and toxoid injections; the recommendation was adopted. RALPH L. COX, *Reporter*.

LEHIGH

May 14, 1935

The meeting was held at the Sacred Heart Hospital, Allentown; Robert L. Schaeffer presided. John F. Erdmann, New York City, gave an address on "Cholecystitis, Choledochitis, and Cholangitis." Dr. Erdmann said in part:

Cholecystitis does not necessarily convey the idea that the condition must be the result of calculi. There are numbers of patients treated for cholecystitis that are noncalculous biliary dyskinesia cases. The chief types of dyskinesia are those of disturbances of motility, which may be due to adhesions with or without the presence of inspissated bile. There are also the types of stasis due to hypertrophic or atrophic walls and those due to distention as a result of adhesions which produce a kink. There are the types due to hypertrophy of the muscle which surrounds the papilla of Vater including the type due to a spasm of the sphincter of Oddi, *etc.* Relief after operations for these varieties of gallbladder distress cannot be guaranteed. Nevertheless, sufficient relief by surgery is obtained, suggesting it as the correct procedure.

It is quite evident that the major portion of cholecystitis patients are calculus-bearing. However, the calculi in all probability are not the source of inflammatory attacks.

The signs and symptoms in the mild type of cholecystitis are as follows: Sense of weight in the upper right quadrant, bearing no definite relation to food intake; belching, bloating, and a feeling of constriction in the epigastrium. Most patients report a gain in weight but frequently a definite loss of from 5 to 45 pounds has been seen.

The more severe attacks are accompanied by pain, occurring chiefly in the evening or during the night and at times requiring anodynes. The attacks become more and more frequent until relief is obtained by surgery. The colic pains may be in the epigastrium only or the pain may travel to the back, to the right shoulder, or neck.

Jaundice in acute cholecystitis is not present unless the common duct is involved by pressure from without or a stone or a growth within. It is advisable to realize this reference to jaundice as many physicians even to-day cannot eliminate jaundice as a necessary sign in their cholecystitis patients, their argument being that no inflammatory conditions or calculi exist because of lack of jaundice. Acute cholecystitis at times will become gangrenous and may go on to perforation. Exquisite pain in the upper right quadrant with an increasing pulse rate and a rise in temperature warrants the diagnosis of a gangrenous condition.

Choledochitis.—In very rare cases may be found a condition of choledocholithiasis which is not accompanied by a calculous cholecystitis.

Symptoms.—There are the attacks of paroxysmal pain with possibly a slight degree of jaundice. Later

the attacks become more frequent and severe with subsequent chill, fever, and marked jaundice. The syndrome of Charcot as evident. This condition is a result of cholelithiasis with a varying degree of cholangitis.

Many of the patients and the profession are hesitant about submitting to an operation and request treatment to alleviate or abolish the attacks. There is no curative treatment or remedies. The patient should refrain from eating fats or anything that contains either vegetable or animal fat.

If patients do come to operation, complete removal of the gallbladder is indicated. Cholecystostomy is done only when the gallbladder should be anastomosed or should be taken out at a later date on account of some obstruction below the cystic duct.

When a cholecystectomy has been done the source of a possible cancer has been removed, as the cancerous condition may be the result of irritation by calculi. Another factor in favor of a cholecystectomy is the absence of those disagreeable sinuses of biliary origin following an incomplete operation.

When operating for stones in the duct the surrounding structures should be freed so that the duct may be outlined. If there is any question as to whether or not the duct is the object for which the search is being made a diagnostic needle may be used.

One patient, age 82, on whom Dr. Erdman did a cholecystectomy and transduodenal choledochostomy in 1932, is now living and well. His youngest patient in these 5 years was age 21, although he has done a choledochostomy in a girl under age 14, at the time removing 3 large stones and numerous small stones from the gallbladder and hepatic ducts.

July 9, 1935

The meeting was held at the Nurses' College of the Allentown Hospital; Robert L. Schaeffer presided. Richard A. Kern, professor of clinical medicine, University of Pennsylvania, spoke on "Clinical Allergy," discussing underlying theories of the allergic state and enumerating some of the ways in which hypersensitivity in man can show itself clinically.

VAUGHN SPRENKEL, *Reporter.*

WARREN

July 15, 1935

Thirty members were present. Hamblen C. Eaton reported on a conference held in Harrisburg in relation to emergency medical relief.

John A. O'Donnell, of the Allegheny General Hospital, Pittsburgh, gave a survey of the treatment of diabetes of the juvenile and adult type. He spoke on the importance of warning the adult diabetic to pay careful attention to the cleanliness of the skin; to avoid irritations in order to prevent infection which quickly produces gangrene. The skin in diabetics contains no glycogen, hence is vulnerable. In spite of all the research the cause of diabetes has not yet been found, and necropsies on 300 of these patients failed to show any definite pathology in the pancreas.

In diagnosis, acidosis may be confused with acute appendicitis and pneumonia as there is often referred pain in acidosis. Diabetic coma and uremia are at times difficult to tell apart. A carbon dioxide plasma determination may be necessary. As blood sugar is low in arteriosclerosis and anginal attacks, insulin is

considered contraindicated, but if carefully watched it need not be dangerous.

In children, tuberculosis is not an uncommon termination. Diet is still the most important therapeutic agent. A moderately high carbohydrate diet to maintain nutrition with a low fat, and a constant protein diet, are ideal. Watch the blood cholesterol; insulin guardedly and exercise are the other agents. To prevent diabetes, marriage should be avoided especially where obesity is also present. It is believed that 50 per cent of the pregnancies of diabetic women prove fatal to the child.

MICHAEL V. BALL, *Reporter.*

FOURTH COUNCILOR DISTRICT

The Fourth Councilor District meeting was held at Eagles Mere, July 11, in the auditorium of the Forrest Inn.

The program consisted of an opening address by Trustee and District Councilor E. Roger Samuel, and 2-minute reports by the district censors: George E. Richardson, Bradford County; J. Elmer Shuman, Columbia County; Sydney J. Hawley, Montour County; Mark K. Gass, Northumberland County; Franklin A. Stiles, Susquehanna County; and William W. Lazarus, Wyoming County.

State Secretary Walter F. Donaldson gave a talk on "County Medical Society Membership—a Privilege and a Social Obligation." Dr. Donaldson reviewed the statistics of membership and showed that there had been an increase in membership in almost every county in the society. He also read from the *Archives of Medicine* to show the progress of society membership in the past 60 years.

"Open Operation for Fractures" was discussed by Moses Behrend, Philadelphia, president of the State Society. Dr. Behrend discussed the conditions which call for open operation and the treatment, illustrating with both slides and a motion picture. The discussion was opened by Frederick W. Heyer, chief surgeon of the Nanticoke Hospital, who has had a tremendous experience with fractures due to his location in the industrial anthracite region.

"Clinical Diagnosis and Surgical Treatment of Tumors of the Breast" was given by Stuart W. Harrington, of the Mayo Clinic. Dr. Harrington delved into the clinical symptoms and showed a long list of pictures taken before and after operation to illustrate the different points in his clinical diagnosis. The surgical treatment was referred to. Dr. Harrington concluded with a discussion of the classification of the tumors in 4 different groups.

Luncheon was had by the physicians, their wives, and families.

Stanley P. Reimann, Philadelphia, chairman of the State Society Committee on Scientific Work, discussed "The Issues at Stake in the Grading of Tumors." The general discussion was opened by Henry Hunt, pathologist of the Geisinger Hospital, Danville.

Mr. Hanns Gramm, supervisor of Social Service of the Textile Works of Reading, who has served 15 years under the Social Laws of Germany and who has made a study of social insurance in Holland, Belgium, France, and America, read a paper on "The Social Service Laws." Mr. Gramm's paper should be heard by lay groups all over the state.

"The Problem of Maternal Mortality, and the Purpose and Aim of the Maternal Welfare Commission" was discussed by James S. Taylor, Altoona, chairman

of the State Maternal Welfare Commission. The discussion was opened by Ruth Hartley Weaver, Philadelphia.

"The Diagnosis and Surgical Treatment of Acute Perforations of Duodenal Ulcers" was presented by Donald Guthrie, chief surgeon of the Guthrie Clinic, Sayre. Robert Sharer, his assistant, reviewed the cases referred to by Dr. Guthrie and showed slides.

SEVENTH COUNCILOR DISTRICT

The Seventh Councilor District Meeting of The Medical Society of the State of Pennsylvania was held at the Williamsport Country Club, Williamsport, July 12. Dinner was served at 12:30 p.m., to 75 members and guests; 25 other physicians attended the meeting following the dinner.

Trustee and District Councilor David W. Thomas, Lock Haven, presided. The district censors of the various counties of the Seventh District submitted reports: Edwin C. Blackburn, Lock Haven, in the absence of Saylor J. McGhee, gave the report for Clinton County; John C. McAllister, Ridgway, for Elk County; Wesley F. Kunkle, Williamsport, for Lycom-

ing County; John H. Page, Austin, for Potter County; and Solomon P. Hakes, Tioga, for Tioga County. All counties in the district were represented.

The visiting trustees and councilors were: Frederick J. Bishop, Scranton; E. Roger Samuel, Mt. Carmel; and Augustus S. Kech, Altoona. Dr. Bishop extended an invitation to attend the Third Councilor District meeting, to be held at Skytop Lodge, in the Poconos, July 31, and outlined the program.

Moses Behrend, Philadelphia, president of the State Medical Society, read a paper on "Differential Diagnosis of Upper Abdominal Lesions as a Factor in Reducing Morbidity and Mortality."

Charles C. Wolferth, Philadelphia, spoke on "Comments on the Treatment of Heart Disease," and gave specific instructions concerning the treatment of certain conditions.

State Secretary Walter F. Donaldson, Pittsburgh, spoke on "State Society Affairs."

Ruth Hartley Weaver, Philadelphia, read a paper on "Prenatal and Maternal Care."

William H. Mayer, Pittsburgh, chairman, Public Relations Committee, State Medical Society, spoke on "Social Trends and Medical Service."

The Woman's Auxiliary to The Medical Society of the State of Pennsylvania

MRS. GEORGE C. YEAGER, *Editor*, 1419 E. Susquehanna Ave., Philadelphia, Pa.

STATE CONVENTION

Harrisburg has completed arrangements for the reception of the members of the Woman's Auxiliary to The Medical Society of the State of Pennsylvania. A program has been planned which we hope will be of interest to all. An outline of this program appeared in the August issue of the JOURNAL.

For your convenience most of the activities will take place in the Penn-Harris Hotel. Please register there *immediately* upon your arrival.

The Convention Committee urgently requests every auxiliary president to mail to the registration chairman, by September 25, the approximate number of her members expecting to be in Harrisburg. Reservations at the hotels for luncheon and dinner necessitate a close estimate of guests. Address Mrs. Carson Coover, 223 Pine Street, Harrisburg.

It has been a great pleasure for the Dauphin County Auxiliary to prepare for this annual meeting and we trust that you will make a very special effort to be in Harrisburg from September 30 to October 3.

EUNICE E. (MRS. JOSEPH W.) SHAFFER,
Convention Chairman.

A MESSAGE FROM THE PRESIDENT

DEAR AUXILIARY FRIENDS:

It scarcely seems possible that the time has come to publish my last letter to you. It has been a busy year, yet one filled with joy and gladness because it has been a successful year due to the coöperation and interchanging of ideas throughout the state.

You have been so splendid and so generous this year, and I only ask for your continued friendship. May you start your new year by attending the State Meeting, held in Harrisburg, September 30 to October 3, giving your state officers the support they so greatly need. The State Convention has to do with both education and administration; the purpose is to review and appraise the work of the year of the State Board and of the county auxiliaries, to decide what work is to be undertaken for the coming year, and to devise plans for carrying on that work.

The success of a State Convention depends upon attendance of all board members, district councilors, county presidents, and delegates from all county auxiliaries, upon reports detailed enough to give definite idea of work done, and upon exhibits.

The annual meeting is the outstanding opportunity of the year for stimulating the county work. Again I say, *attend the state meeting.*

Upon entering another administrative year, may we as officers ask for our successors the same loyal support and coöperation you have given us, and as I take my place in the ranks of the workers, I pledge you and your leader, my continued support and my best efforts always.

NAOMI L. (MRS. LAURRIE D.) SARGENT,
President.

EDITORIAL

As this is the last issue for the year, I wish to thank the county auxiliaries that have contributed to the JOURNAL for their promptness and quality of material submitted, and to ask what is the matter with the majority?

Each county auxiliary president should give her personal attention to the need for reporting meetings, and also send the name of the county publicity chairman to the State Publicity Chairman. It would be a great help, as the latter could then communicate directly with the proper and responsible person.

We are all interested in your activities, no matter how small your auxiliary.

Do not fail to understand that material sent to Harrisburg each month will not appear until the next month's issue of the JOURNAL.

I wish to take this occasion to thank Mrs. Laurie D. Sargent and Editor Frank C. Hammond for their assistance and coöperation at all times.

Mrs. Sargent has been very busy this year but never too busy to respond to an appeal for suggestions.

If your county auxiliary has not been properly reported this year in our State JOURNAL, please be sure that reports will be sent to the editor, for 1935-1936.

JESSIE W. (MRS. GEORGE C.) YEAGER,
Publicity Chairman.

COUNTY AUXILIARY REPORTS

Dauphin.—"Camp Christmas Seal" at Highspire, the health camp for undernourished children, and a pet project of our auxiliary, again benefited through the help of this organization. The sum of \$50 was budgeted for this summer activity, part of which was given in cash and the balance used to defray the expenses for weekly entertainment and refreshments for the children.

The entertainment was varied in character, with a magician entertaining one week, a story-telling group the next, and at another time a group of dancers.

Sixty clothing bags were made, which the children hang on the end of the beds for their linens.

The committee, consisting of Mrs. Jesse L. Lenker, chairman, Mrs. David I. Miller, and Mrs. A. W. Cowley, conducted their activities during June, July, and August, and because this philanthropic endeavor is very deeply rooted in the hearts of all the members of our auxiliary, the chairman and her committee should be congratulated for their unremitting interest in this work.

Montour.—The annual meeting of the auxiliary was held May 3, 1935, at the Danville State Hospital, at which time they were the guests of the hospital on the occasion of Mental Hygiene Day. Luncheon was served.

A short business meeting was held at which dues were collected and officers elected as follows: President, Mrs. Charles L. Johnston; vice-president, Mrs. Charles S. Tomlinson; secretary-treasurer, Mrs. Horace V. Pike.

Reports showed a gain of 3 in membership, 5 new members having been added and 2 old members lost. The membership at present is 19.

During the past year 8 complete layettes have been furnished the state nurse for distribution.

A contribution of \$10 was made to the Medical Benevolence Fund and \$2.50 was contributed as our share in the expense of the A. M. A. Convention at Atlantic City.

Mrs. Walter Freeman, Washington, D. C., chairman of the National Committee on Legislation, was a guest at the meeting.

Philadelphia.—The membership of the auxiliary is now well over 400. The officers of the County Medical Society have been very generous in permitting the auxiliary to use the Society's building for all meetings and social affairs.

The regular meetings are held on the second Tuesday of each month from October to April, inclusive, at 2 p.m. After each business meeting there is a program and a tea.

Work for the Aid Association, under the direction of the chairman of the Ways and Means Committee, has a large place in our calendar, there being a social affair of some kind each month in addition to the regular meeting, including the white elephant sale in December. Last year, through the efforts of this committee, the auxiliary contributed \$993.50 to benevolences.

Health Institute will be held in April.

The first important event of the year is the State Convention at Harrisburg where our own Mrs. W. Burrill Odenatt will take office as president of the Woman's Auxiliary to the State Medical Society. Mrs. Odenatt has been very active in the work of the Philadelphia auxiliary, having served as chairman of the Committee on Public Relations and Welfare and also as president of the auxiliary.

Fourth Councilor District.—The annual meeting of the auxiliaries of this district was held on July 11, at Forrest Inn, Eagles Mere, at the same time as the physicians of this councilor district met.

A large crowd of wives, daughters, and sisters of the physicians attended this meeting, at which the following program prevailed: Mrs. Henry F. Hunt, district councilor, presided; greetings from Mrs. Laurie D. Sargent, president of the State Auxiliary; address, "Prenatal and Maternal Care," Ruth Hartley Weaver, Philadelphia; reports from secretaries of county auxiliaries.

In the afternoon, the ladies met with the men in a joint session.

Medical News

Births

TO DR. AND MRS. HUGH R. ROBERTSON, Warren, a daughter.

TO DR. AND MRS. LEONARD ROSENZWEIG, of Warren, recently, a daughter.

TO DR. AND MRS. A. D. MARTIN, of Colver, a son, James MacLaren, June 17.

TO DR. AND MRS. ARTHUR G. DAVIS, of Erie, a daughter, Janet Adelaide, June 15.

TO DR. AND MRS. LEE WEINSTEIN, of Harrisburg, a daughter, Joan Marcia, July 17.

TO DR. AND MRS. ALEXANDER SILVERSTEIN, of Philadelphia, a son, Herbert B., Aug. 6.

TO DR. AND MRS. FRANKLIN LIMER PAYNE, of Philadelphia, a daughter, Elizabeth Tulley, Aug. 4.

TO MR. AND MRS. SAMUEL H. HIGH, JR., of Jenkintown, a daughter, Elizabeth Lucretia, Aug. 10. Mrs. High is the daughter of Dr. and Mrs. Norman L. Knipe, of Merion.

Engagement

MISS ALISON ROWNTREE, daughter of Dr. and Mrs. Leonard G. Rowntree, of Philadelphia, and Mr. Laird Hemphill Wallace, of New York.

Marriages

MISS HELEN STOVER to Dr. J. Harrison Tate, of Erie, June 22, in Oil City.

MISS ALTHEA HILDEGARD WAHLE to Dr. Harry E. Bacon, both of Philadelphia, June 21.

MISS MARY KATHARINE EVANS, New Rochelle, N. Y., to Dr. Clarence Hogue Ingram, Jr., of Pittsburgh, July 10.

MISS KATHARINE VOGEL, of Scalp Level, to Dr. Clyde J. Bibb, of Portage, July 6. Dr. and Mrs. Bibb will reside in Reno, Nev.

MRS. ROSALIE MEYER, widow of Dr. Joseph J. Meyer, and daughter of Dr. W. E. Matthews, of Johnstown, to Mr. Charles Edgar Hagins, also of that city, July 26.

Deaths

NICHOLAS ALBRECHT, Pittsburgh; University of Pittsburgh School of Medicine, 1901; aged 56; died Aug. 6. Dr. Albrecht was a member of his county and State medical societies and a Fellow of the A. M. A.

MRS. SARA ANDERSON, Pittsburgh, mother of Drs. Robert L., William L., and Joseph B. Anderson, died June 16.

JOHN LOY ARNOLD, Harrisburg; Jefferson Medical College, 1911; aged 49; died July 26, following a heart attack. Dr. Arnold was a member of the Harrisburg Hospital staff for 14 years. During the World War he held the rank of first lieutenant in the Medical Corps at Camp Grant, Iowa. He was a member of his county and State medical societies and the A. M. A. His widow and one son survive.

JAMES AUGUSTUS BAILEY, Harrisburg (formerly of Sunbury); College of Physicians and Surgeons, Baltimore, 1895; aged 63; died July 12, of angina pectoris.

ORAN MERTON BELFRY, Lansdowne; Medical Faculty of Trinity University, Toronto, Can., 1884; aged 79; retired; died July 22. Dr. Belfry was a licentiate of the Royal College of Physicians, Edinburgh. He is survived by a widow.

EDWIN ELLSWORTH BROPHY, Meadville; University of Pittsburgh School of Medicine, 1907; aged 63; died

July 26. Until recently Dr. Brophy had been a member of his county and State medical societies and the A. M. A.

SIMON S. BRUMBAUGH, Philadelphia; Washington University School of Medicine, St. Louis, 1878; aged 84; died from heart disease, Aug. 13. Following graduation he practiced in Pipersville (Bucks Co.), Pa., until 1900, when he moved to Philadelphia and continued to practice until 2 years ago. He was a member of his county and State medical societies and the A. M. A.

SILAS S. BURNS, Bethel; aged 86; died in August. He was a native of Sunbury. He practiced for 59 years; at various times in Pinegrove, Port Clinton, Royersford, Pottstown, Reading, Shamokin, and Bethel. A wife and 6 children survive.

SIMON F. EARNEST, Hummelstown; University of Pennsylvania School of Medicine, 1891; aged 68; died May 6, of uremia due to prostatic disease.

JOHN PAUL EMERSON, Pittsburgh; University of Pittsburgh School of Medicine, 1935; aged 24; died May 25.

DAVID F. HAAGEN, York; Jefferson Medical College, 1908; aged 51; died May 11, of lobar pneumonia.

WILLIAM FULLER HARRISON, Plains; Baltimore University School of Medicine, 1904; aged 62; died June 14, of progressive bulbar paralysis. He served during the World War.

HOWARD H. HEINRICH, Pittsburgh; University of Pittsburgh School of Medicine, 1912; aged 52; died Aug. 4. Dr. Heinrich was a member of his county and State medical societies and a Fellow of the A. M. A.

OLIVER H. JACKSON, Meadville; St. Louis University School of Medicine, Missouri, 1902; aged 60; died July 23. Dr. Jackson was a member of his county and State medical societies and a Fellow of the A. M. A. He was president of his county society in 1918.

NELSON WILSON JANNEY, San Diego, Calif.; University of Pennsylvania Medical School, 1906; aged 53; died Apr. 29. Dr. Janney was born in Philadelphia.

EUGENE ELMER KENDALL, Waterford; Jefferson Medical College, 1887; aged 74; died June 11, of heart disease. Dr. Kendall was a member of his county and State medical societies and a Fellow of the A. M. A.

CLARK SAMUEL LONG, Lansdale; University of Maryland School of Medicine and College of Physicians and Surgeons, Baltimore, 1916; aged 48; died suddenly, July 17, from a heart attack while riding in an automobile en route from Ocean City, N. J., to his summer home just below Cape May Court House. He was a member of his county and State medical societies and a Fellow of the A. M. A. He is survived by his wife and 4 daughters.

MRS. C. W. ORRIS, aged 65, of Rich Hill, Mo., mother of Dr. John A. Orris, of Windber, died July 22 in the Windber Hospital after an extended illness.

MILTON WALBORN PHILLIPS, Chapman Quarries; Medico-Chirurgical College of Philadelphia, 1906; aged 65; died May 28. Dr. Phillips was a member of his county and State medical societies and a member of the A. M. A.

CALVIN C. RUSH, Johnstown; University of Pennsylvania School of Medicine, 1907; aged 59; died July 19 of subacute bacterial endocarditis.

Dr. Rush was born in Fairmont, Indiana. He received his early education in the public schools and Earlham College from which he was graduated in 1900. Having won a scholarship he entered Haverford College where he received his Bachelor's degree in 1901.

He entered the practice of medicine at Portage, Pa., where he remained until 1916. From 1918 to 1919 he was located in Canton, China, and Karuizawa, Japan. While located in Canton he was visiting ophthalmologist to the Canton Hospital, the Kung Yee Hospital, and the David Gregg Hospital. In Japan he was associated with the St. Luke's International Hospital at Tokyo. Prior to going abroad Dr. Rush had taken postgraduate work in diseases of the eye, ear, nose, and throat, and also acted as assistant demonstrator of anatomy at the Jefferson Medical College, and was in charge of the Eye Dispensary at the Pennsylvania Hospital. In 1920 Dr. Rush took up the practice of medicine in Johnstown, and at the time of his death was a chief on the staff of the Conemaugh Valley Memorial Hospital.

Dr. Rush was active in public health and civic work and also in the cultural activities of Johnstown, being one of the acting sponsors of the Johnstown Symphony Orchestra and the Little Theatre group. He was a member of his county and State medical societies and a Fellow of the A. M. A. He was also a Fellow of the American Ophthalmological Society, the American Academy of Ophthalmology and Otolaryngology, and the American College of Surgeons. He is survived by his widow and 4 children.

ALBERT EDWARD SMETHURST, Philadelphia; Medico-Chirurgical College of Philadelphia, 1898; aged 63; died June 12, of coronary thrombosis. Dr. Smethurst was a member of his county and State medical societies and a Fellow of the A. M. A.

RICHARD STEWART, aged 20, only son of Dr. and Mrs. Harry M. Stewart, of Johnstown, died June 8, following a 4 months' illness from a brain tumor (glioma). He was a third-year student at Lafayette College and an Eagle Scout with Three Palms, the highest award in Scouting.

PARKER U. WAGONER, Carlisle; Temple University School of Medicine, Philadelphia, 1911; aged 48; died June 14 at the Carlisle Hospital where he had been a staff member. Dr. Wagoner served during the World War and was a member of his county (past president) and State medical societies and a Fellow of the A. M. A.

Miscellaneous

DR. J. GLENN HEMINGTON, Uniontown, has been appointed health director of Fayette County.

DR. AND MRS. W. TYLER DOUGLAS, of Harrisburg, recently visited Havana, Mexico, and the Panama Canal.

DR. JOHN B. CARRELL, of Hatboro, gave a dinner to a few friends on July 11, to celebrate his eighty-fourth birthday.

DR. MARTIN E. BABACK, of Johnstown, sailed on July 16 for Hungary to visit his mother.

DR. EUGENE H. DICKENSHIED, Allentown, has been appointed medical director of Lehigh County to succeed Dr. Jacob Treichler Butz.

THE NEXT annual convention of the Hospital Association of Pennsylvania will be held in the William Penn Hotel, Pittsburgh, Apr. 22-24, 1936.

DR. CARSON COOVER and family, of Harrisburg, recently returned from a tour of the Mediterranean ports. They also visited the Scandinavian countries.

DR. LOUIS A. WESNER, of Johnstown, has been appointed medical director of the State Sanatorium for Tuberculosis at Cresson, succeeding Dr. Thomas H. A. Stites

DR. E. KIRBY LAWSON, of Harrisburg, has been appointed physician to the Dauphin County jail to fill the vacancy created by the death of Dr. George G. Snyder.

DR. WILLIAM DEVITT, superintendent of the Devitt Sanitarium, Allenwood, was elected president of the Federation of American Sanatoria, at the Federation Convention, Albuquerque, N. M.

AT THE 1935 MEETING the American Proctologic Society, Dr. Frank G. Runyeon, of Reading, was elected president. Dr. Runyeon is chief of the Proctologic Service at the Reading Hospital.

DR. MARTHA TRACY, dean of the Woman's Medical College of Pennsylvania, has been granted a year's leave of absence from the college. Dr. Henry D. Jump will be acting dean during her absence.

PRESIDENT ROOSEVELT has approved an increase in hospital facilities for veterans at 11 of their hospitals. A new 315-bed structure will be erected at a cost of \$600,000 for the Veterans Hospital, Coatesville, Pa.

DR. CLARENCE A. PATTEN, associate professor of neurology, University of Pennsylvania Graduate School of Medicine, was recently appointed professor of neurology to succeed the late Dr. Theodore H. Weisenburg.

DR. AND MRS. EDWIN T. EALY and their daughter, Lucille, of Barnesboro, were seriously injured, June 10, when their automobile was struck and completely wrecked, by a New York Central freight train, while en route to the A. M. A. Convention in Atlantic City.

ACCORDING TO OVERSEAS NEWS the tense atmosphere of an operating room in Budapest exploded in a violent dispute, Aug. 18, between 2 surgeons over a point in surgical technic, and in a subsequent duel with cavalry sabers one of the surgeons was critically injured.

DR. FRANK F. D. RECKORD and his sister, Miss Mary Reckord, of Harrisburg, who have been on a trip to South America, attended the Pan-American Medical Congress at Rio de Janeiro. Dr. Edwin A. Nicodemus, of Harrisburg, also took the Pan-American cruise to Brazil.

DR. HERNAN ROMERO, of Chile, was elected secretary of the Pan-American Medical Association at the recent "Floating Congress" of the association. The association granted a fellowship to Dr. Caldas Pires, a young Brazilian physician, which will enable him to study urology at Temple University, Philadelphia, for a year.

DR. ANNIE R. ELLIOTT was elected superintendent of the Norristown State Hospital, Norristown, by the Board of Trustees to fill the vacancy which has existed at the hospital since the death of Dr. S. M. Miller last May. Dr. Elliott has been connected with the institution for 21 years, and served as assistant superintendent under Dr. Miller.

AT THE MEETING OF THE MAIN LINE BRANCH of the Montgomery County Medical Society, held Sept. 9, at the Merion Cricket Club, Haverford, "Poliomyelitis: Epidemiology and Immunization" was discussed by Drs. Maurice Brodie of the Research Laboratory, New York City Board of Health, and W. H. Park, Director of Laboratories, New York City Board of Health.

DR. S. B. SCHOLZ, JR., MEDICAL DIRECTOR of the Penn Mutual Life Insurance Company of Philadelphia, was selected by the Medical Directors Association of the United States and Canada to represent them at the International Congress on Life Assurance Medicine at its recent convocation. Dr. Scholz presented one of the 10 papers read before the congress.

DR. STANLEY P. REIMANN, Director of Cancer Research at the Lankenau Hospital, Philadelphia, sailed on Aug. 14 to deliver a series of lectures on cancer research before the Biological Laboratories in Oppau, near Heidelberg, Germany, on the invitation of Dr. G. Klein, director of the laboratories. He also expected to visit the Cancer (Free) Hospital of London

and the headquarters of the International Union Against Cancer in Paris.

SEVEN MORE HOSPITALS ADOPT 3-CENT PLAN.—Seven more hospitals in the New York area, including 2 in New Jersey, were admitted July 28 as members of a "3-cents-a-day" plan for hospital care, it was announced July 28. The new members will bring the number of hospitals in the plan to 134, by which persons who pay 3 cents every day in the year are eligible to receive 21 days of semiprivate hospitalization. Doctors' fees are not included.—*Associated Press.*

THE DEPARTMENT OF STATE, United States Government, appointed the following delegates from the United States to the First International Congress of Gastroenterology at Brussels, Belgium, Aug. 8 to 10: Lt. Col. John H. Trinder, chairman, Medical Corps, retired, U. S. Army; Drs. Henry L. Bockus, Russell S. Boles, and B. B. Vincent Lyon, of Philadelphia; Drs. Max Einhorn and De Witt Stetten, of New York; Drs. Sara Jordan and Franklin W. White, of Boston, Mass.; and Dr. William Gerry Morgan, of Washington, D. C.

LOS ANGELES ADOPTS SOCIALIZED MEDICINE FOR THOSE ON RELIEF.—One of the most extensive programs of socialized medicine ever undertaken was begun at Los Angeles, July 26, as 4359 physicians, surgeons, dentists, osteopaths, and druggists began ministering to 400,000 persons on relief rolls. The medical service will be paid for by the State Relief Administration at fixed rates below those charged in private practice. Under the county's plan no person on relief will lack any detail of medical, dental, or pharmaceutical care.

PENNSYLVANIA SECOND IN BIRTHS FOR YEAR.—There were 2,158,919 live births in the United States last year, the Census Bureau disclosed June 28. This is a rate of 17.1 per 1000 population, an increase over 1933, when the rate was 16.6. New York had the largest number of births—1,856,151, a rate of 14.2 per 1000 population. Pennsylvania was second with 1,602,381, a rate of 16.3. Texas was third and Illinois fourth. California had the lowest rate of all states and New Jersey the second lowest. Infant mortality for the country as a whole rose from 58.1 per 1000 live births in 1933 to 59.9 in 1934.

A MOVEMENT TO FORM AN "ANTI-ALCOHOL LEAGUE" in Spain to encourage temperance has been begun by 2 well-known psychiatrists who, in calling for public support of the movement, have declared that while drunkenness is not a problem in Spain the amount of alcohol consumed is injurious. Further stress is being laid on the fact that temperance is particularly important for the welfare of children who otherwise might inherit feebleness from alcoholic parents. It seems that Spaniards draw a sharp line of distinction between alcohol and wine, the latter being considered merely a harmless beverage.

THE STATE BUREAU OF ENFORCEMENT has prosecuted the following persons, among others, in the past few months, for illegal practice of the healing art:

Ashton Will, Somerset, fined \$100 and costs with 6 months' imprisonment.

R. D. Singh, Mechanicsburg, \$50 and costs with 60 days in jail.

A. R. Daley, Sharon, fined \$100 with 6 months' imprisonment.

Theodore R. Anderson, Philadelphia, 1 to 5 years' imprisonment.

Eugene Harsch, Pittsburgh, fined \$100 and costs.

AT THE TWENTY-NINTH ANNUAL MEETING of the West Section of the Fifth Council District, held at Piney Mountain Inn in Adams County, July 18, the following officers were elected for 1935-1936: President, Dr. W. Frank Gemmill, York County; first vice-president, Dr. Jeremiah F. Lutz, York County; second vice-president, Dr. Richard R. Spahr, Cumberland

County; third vice-president, Dr. James H. Swan, Franklin County; fourth vice-president, Dr. John L. Boyer, Adams County; fifth vice-president, Dr. Edgar S. Krug, Fulton County; secretary, Dr. W. Newton Long, York County; treasurer, Dr. John F. Bacon, York County.

THE EIGHTH ANNUAL GRADUATE FORTNIGHT of the New York Academy of Medicine will be held Oct. 21 to Nov. 2. The program this year will be limited to diseases of the respiratory tract. The registration fee of \$3 admits to all features of the Fortnight. Fellows and members of the academy will be furnished admission cards without charge. Make formal application for registration with the New York Academy of Medicine, 2 East 103d Street, New York City.

The following Pennsylvanians will participate: Tuesday evening, Oct. 29, "Bronchoscopy in its Relation to Diseases of the Respiratory Tract," by Dr. Chevalier L. Jackson, professor of clinical bronchoscopy, Temple University School of Medicine; "Emphysema," by Dr. David Riesman, emeritus professor of clinical medicine, University of Pennsylvania School of Medicine.

NAMES NURSING FACULTY. Dr. Thomas S. Gates, president of the University of Pennsylvania, has announced the appointment of a director and 2 faculty members of the new Department of Nursing Education established at the University of Pennsylvania at the request of the Pennsylvania State Nurses Association.

Miss Katherine Tucker, of New York, will be director of the department; Miss Ruth Bower, of Pittsburgh, will be professor of nursing education, and Miss Annie W. Goodrich, of Summit, N. J., will be lecturer on nursing education.

Miss Bower has been principal of the School of Nursing and director of the nursing service of the Western Pennsylvania Hospital, Pittsburgh, for 15 years. Miss Goodrich was the organizer and is now dean emeritus of the Yale University School of Nursing. The new department will open in September.

PUSH STERILIZATION DRIVE. More general resort to sterilization of criminals and feeble-minded in Oregon is being considered by state officials.

Governor Charles H. Martin intimated that applications for pardons from Oregon State Prison would receive scant consideration unless the petitions were accompanied by an agreement to submit to sterilization. In particular, the Governor said, those committed to prison for sex crimes must agree to sterilization.

Under the law inmates of the state prison, State Hospital for the Insane, and the institution for the feeble-minded may be sterilized only upon permission of the State Board of Eugenics and with consent of the person or his or her parents or guardian.

Dr. R. E. Lee Stiner, superintendent of the State Hospital, estimated about 1000 of these operations have been performed in Oregon.

OFFICIAL DENIAL THAT NOVOCAIN was used in the dental extractions reported to have caused the death recently of 3 patients of the Metropolitan Hospital Dental Clinic has been made by Dr. S. S. Goldwater, Commissioner of Hospitals of New York City. In the denial Dr. Goldwater said, "it has been positively established that the solution injected in these cases was not novocain."

Referring to published reports that novocain was used in these injections, Dr. Goldwater said: "While this drug has been used in department hospitals, it has not been furnished to the Metropolitan Hospital. It is obvious, therefore, that novocain was not used. If anyone used the trade name Novocain in the course of the investigation it was done without intent to mislead."

THE FOLLOWING OFFICERS were elected at the annual meeting of the Lehigh Valley Medical Association, held at Mt. Pocono Manor, July 17: President, J. K. Wil-

liams Wood, Willow Grove; first vice-president, C. E. Beck, Portland; second vice-president, C. W. Prevost, Pittston; third vice-president, H. P. Feigley, Quakertown; fourth vice-president, M. S. Kleckner, Allentown; secretary, J. Treichler Butz, Allentown; assistant secretary, J. A. Trexler, Lehigh; treasurer, William J. Hertz, Allentown. More than 200 were in attendance.

The retiring president, Dr. Herbert B. Gibby, of Wilkes-Barre, addressed the group on "The Duty of the Individual Physician to Organized Medicine."

The guest speaker for the occasion was Dr. Walter C. Alvarez, of Rochester, Minn., who gave a discourse on "Some Useful Tricks in the Treatment of Gastro-intestinal Disease."

Dr. J. K. Williams Wood, of Willow Grove, who was elected to the presidency, spoke of "Our Deceased Members the Past Year." Nine members of the association died during the past year.

THE ELEVENTH ANNUAL MEETING of the American Association of the History of Medicine was held in Atlantic City, N. J., May 6. The program was dedicated to the memory of one of the world's greatest medical benefactors to children, Dr. Joseph P. O'Dwyer, who, 50 years ago, demonstrated to a skeptical medical profession improved laryngeal intubation and published his first article on a new and life-saving treatment of laryngeal diphtheria. Through the courtesy of Prof. J. W. Crane, of the University of Western Ontario, and Prof. Jabez H. Elliott, of Toronto, Ontario, there was exhibited both the "doctor's bag," in which O'Dwyer transported the set of intubation tubes, and a model of all his instruments by which he saved, and taught others to save, the lives of hundreds of children, many of whom would otherwise have died of strangulation.

It was eminently fitting that the address concerning Dr. O'Dwyer and his inspired work should have been made by Dr. Chevalier Jackson who, following O'Dwyer, has originated and popularized other life-saving methods of direct diagnosis and efficient treatment, namely, bronchoscopy and esophagoscopy.

Officers for 1935-1936 were elected as follows: President, Dr. William S. Middleton, Madison, Wis.; vice-president, Dr. Walter C. Alvarez, Rochester, Minn.; secretary, Dr. E. J. G. Beardsley, Philadelphia; council, Drs. David Riesman, Philadelphia; Gerald Webb, William S. Miller, Edward B. Krumbhaar, Philadelphia; Oscar Kletz, Joseph L. Miller, and Carl V. Weller.

The next meeting will be held in Atlantic City, in May, 1936.

Book Review

ANNUAL REPRINTS OF THE REPORTS OF THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION FOR 1934, WITH THE COMMENTS THAT HAVE APPEARED IN THE JOURNAL. Cloth. Price, \$1. Pp. 135. Chicago: American Medical Association, 1934.

Each succeeding volume of reports of the council reveals more of the long and successful fight in the interest of rational therapeutics. Most of the "Unacceptable" reports in this volume are concerned with products that may have some merit but are not offered to the public in a way which experience has taught the council is necessary before a therapeutic agent is acceptable.

The council also issues preliminary reports, which define the status of new preparations for which the evidence is not yet sufficient to justify their presentation to the medical profession generally. Preliminary reports do not imply rejection but rather postponement of consideration until more evidence is reported by competent investigators. These reports are the outposts of thera-

peutic progress and as such are valuable sources of information to physicians. In this volume there are preliminary reports on adrenal cortex extract, concerned mostly with scientific terminology, cysteine hydrochloride, dihydroxy-anthranol (anthralin), gastric mucin, hemoprotein (Brooks), phenylmercuric nitrate, and phenylmercuric chloride.

Illustrative of the council's efforts to keep those concerned informed of the basis for its actions are the "Recent Revisions or Elaborations of the Council's Rules of Interest to Manufacturers and the Medical Profession," which have appeared in the last 2 volumes. These inform the profession of the various problems which arise and the care given to their consideration. To be commended also is the "Report on Sterility of Ampule Preparations."

THE PRESCRIPTION IS SACRED—KEEP IT SO

If a man wishes to have his rights acknowledged and respected, he must show that he is determined to maintain and defend them. The doctor and the pharmacist stand in a relation of reciprocal benefit to each other. The doctor prescribes medicines and the pharmacist furnishes them. The doctor orders such remedies as his judgment and experience deem best in a given case, and it is the duty of the pharmacist to fill the prescription just as it comes into his hands. He should not substitute drugs, but rather notify the prescriber of the fact that he is unable to fill the prescription exactly and ask his suggestion for a substitute. The physician has been known to make a mistake or order a drug in unusual amount. It is the duty of the pharmacist to call the physician's attention to this, but he should not change the amount or substitute a cheaper or subordinate drug. The only protection that the doctor or patient has is the character and professional qualification of the pharmacist.

The prescription is sacred. It embodies the results of much observation and study. It is one of the means by which the doctor makes a reputation and earns a livelihood. The welfare of the doctor and his patient make it essential that the prescription shall not be tampered with, but must be filled with specified drugs with directions exactly as are given on the doctor's prescription. Except under grave emergency, the pharmacist has not the right to prescribe for patients.

Unless notation is made on the prescription—non repetatur—the pharmacist may refill and continue to refill the old prescription. Indeed the pharmacist may compound the prescription and sell it under some other name; thus the pharmacist enters directly into competition with the doctor. Most drugs are beneficial to the patient only for a limited time, but the pharmacist in refilling or subsequently compounding an old prescription takes it upon himself to decide the need of the patient for the particular drug. This borders on prescribing.

Can the pharmacist be taught the sanctity of the prescription? Many physicians made cynical by experience are skeptics and prefer to eliminate the element of doubt by furnishing their own medicines. A doctor who is wide-awake, alert, and vigilant to see that his interests are protected and his instructions carried out will receive good service. Morality like everything else is taught by necessity, and the doctor who desires to be a success must lay upon the pharmacist the necessity of furnishing the exact remedies ordered, both as to directions and amount and the dangers of refilling the prescription.

If the custom of many pharmacists to send remembrances to physicians at Christmas or other times is a manifestation of good will that mutually and properly exists between men associated in business, it is perhaps permissible; but if it is a means of attracting patronage, it should be discouraged.—Editorial, *The Medical Reporter*, Chester Co. (Pa.) Med. Soc.

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(C) County Society Reports
(CE) Comments and Excerpts
(E) Editorial
(EMR) Emergency Medical Relief
(HA) Hospital Activities

(IM) Industrial Medicine
(ME) Medical Economics
(ML) Medicolegal
(PH) Public Health
(PT) Physical Therapy
(S) Secretary's Department

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"Hurry, Jimmie, or you'll be late for school again. Mother forgot to set the alarm clock. Please don't DAWDLE like that. Here, take your bun and eat it on your way to school. HURRY, darling, teacher will have a fit! PLEASE hurry!"

THE milk is the best item in this child's hurried, harried, worried breakfast, but milk alone is inadequate. The simple replacement of the bun or roll by Pablum would, with added milk, give the child a better-constituted and more nourishing meal on which to start the day right at school. Pablum can be prepared appetizingly, in a few seconds' time, without cooking.

THE LAST-MINUTE BREAKFAST

"Going to school on an empty stomach"

—not because his parents are poor or illiterate, but because his mother didn't allow sufficient time for an adequate, nourishing morning meal.

This scene occurs every morning in thousands of homes, and many a school child is a poor scholar because of a poor breakfast.

For little boys and girls* whose mothers don't get up early enough in the morning, or who can't figure time accurately, a good, nourishing, well-constituted, economical and *quick* morning meal is:

Orange Juice or Tomato Juice	qs
Pablum ē milk or cream	qs
Sugar	qs
Capsule, Mead's Viosterol	I
in Halibut Liver Oil	
More Milk	qs

Such a breakfast supplies important amounts of all the following essential nutritional requirements: Protein, ✓ Fat, ✓ Carbohydrate. ✓ Vitamins: A, B, C, D, E, G. ✓ ✓ Minerals: Calcium, Phosphorus, Iron, Copper, Etc., Etc. ✓ ✓ ✓ Calories. ✓

PABLUM can be prepared in less than a minute and does away with pots and pans and endless overnight and early-morning cereal cookery and drudgery. Simply add milk or water of any desired temperature and serve with cream, salt and sugar.

[Pablum (Mead's Cereal thoroughly pre-cooked by a patented process) consists of wheatmeal, oatmeal, cornmeal, wheat embryo, alfalfa leaf, beef bone, brewers' yeast, iron salt, sodium chloride. Mead Johnson & Company, Evansville, Ind.]

*and perhaps also for their fathers who have to gulp a one-minute breakfast before going to work.

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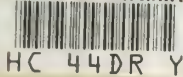
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